

University of Pune

Syllabus for Masters of Computer Application

From Academic Year 2013-2014

MCA (Part I) From Academic Year 2013-2014

MCA (Part II) From Academic Year 2014-2015

MCA (Part III) From Academic Year 2015-2016

(I) Introduction:

1. The name of the programme shall be Master of Computer Application (M.C.A) Integrated.
2. The knowledge and skills required planning; designing and build Complex Application Software Systems are highly valued in all industry sectors including business, health, education and the arts. The basic objective of the education of the Masters programme in Computer Application (M.C.A) is to provide to the country a steady stream of the necessary knowledge, skills and foundation for acquiring a wide range of rewarding careers into the rapidly expanding world of the Information Technology.
3. The Job Opportunities are:
 - Many graduates begin their career as a junior programmer and, after some experience, are promoted as system analysts. Other seek entrepreneurial role in the computer world as independent business owners, software authors, consultants, or suppliers of systems and equipments. Career opportunities exist in such areas as management software and hardware sales, technical writing, training others on computer, consulting, software development and technical support.
 - Application areas include transaction processing (such as order processing, airline reservations, banking system), accounting functions, sales analysis, games, forecasting and simulation, database management, decision support and data communications.
4. Specific elective courses to be offered in functional areas have to depend on student preferences, faculty availability and needs of the user systems in the region in which the educational institution is located
5. The M.C.A program is a mix of computer-related and general business courses. The computer related courses use microcomputers to introduce standard techniques of programming; the use of software packages including word processors, spreadsheets and databases; system analysis and design Tools. The general business courses include the functional areas of management like accounting, sales, purchase, inventory, and production. The course would emphasis the study and creation of business applications, rather than more programming Inclusion of projects in each semester improves student's technical orientation, understanding of IT environment and domain knowledge. It will build right platform for students to become successful Software professional. This would emphasize on domain knowledge of various areas, which would help the students to build software applications on it. The students are exposed to system development in the information-processing environment, with special emphasis on

Management Information Systems and Software Engineering for small and medium computer systems. Inclusion of Business Management Labs will help students to acquire thorough knowledge of management practices in organization. Subjects such as ERP, Information Security, Business Intelligence will work as new application domains. Major focus is also given on Mobile technologies so that student can choose Mobile Technologies as their career options. Also, exposure to microcomputer technology, micro-based systems design and micro applications software, including network and graphical user interface systems is provided. Advanced Internet and Web technology includes variety of new technologies. Soft skills techniques are covered in every semester, which will lead to overall personality development of the student and that will help them in their placement activities and to sustain in the organization successfully.

6. The M.C.A. Integrated programme will be a full-time three years Master's Degree Course of Computer Applications.
7. The new Curricula would focus on learning aspect from three dimensions viz. Conceptual Learning, Skills Learning and Practical / Hands on.
8. The inclusion of projects at each semester ensures the focus on applying the skill learnt at respective levels. It will enhance student's capability to work on various technologies, creativity. It will make appropriate platform for students to work in IT Industry. It will also improve documentation, Coding, Design standards in students. Inclusion of project for subject such as Mobile Computing will definitely improve student's innovativeness and creativity. Student's technical orientation, eagerness will be enhanced.
9. The Institutes should organize placement programme for the M.C.A students, by interacting with the industries and software consultancy houses in and around the region in which the educational Institution is located.
10. At the end of the syllabus various certifications possible for each Semester is given in the list. Students should try to do maximum certifications in their learning phase only to make their resume rich.
11. Ordinarily, in each class, not more than 60 students will be admitted.

(II) (A) Eligibility for Admission:

The eligibility criteria for admission for the MCA course will be as decided by the Competent Authority (Director, Technical Education-Government of Maharashtra, &/or AICTE, New Delhi)

1. A candidate who has either passed with minimum 45% of marks in the aggregate (40% in case of candidate who is domiciled in Maharashtra and belongs to the reserved categories i.e. S.C., S.T., D.T., N.T., O.B.C., S.B.C.)
or
appeared at the final year examination of a post 10+2 course of minimum three years duration leading to an award of Bachelor's Degree, in any discipline by the Association of Indian Universities or has passed with minimum 45% of marks in the aggregate (45% in case of candidate who is domiciled in Maharashtra and belongs to the reserved categories) or appeared at an examination considered equivalent there to would be treated as eligible

for Common Entrance Test(CET). Also the candidate must have passed mathematics/Business Mathematics & Statistics paper for 10+2 or graduation Level and Passed the CET conducted by Director of Technical Education MS with nonzero score for that year OR Passed the CET conducted by State level MCA Association with non-zero score for that year, Or Passed the AIMCET exam for that year.

2. However, a candidate would not be treated as eligible for admission to the MCA programme unless he/she passes his/her qualifying examination with requisite percentage on or before 30th September of the concerned academic year and also passes in the CET.

Generally, candidate passing all the papers that are generally covered over a period of minimum three years in one sitting are not considered eligible. Likewise, candidates possessing the qualifying degree although with requisite percentage of marks, whose duration is less than three years, are not considered eligible.

(B) Reservation of Seat:

The percentage of seat reserved for candidates belonging to backward classes only from Maharashtra State in all the Government Aided, Un-aided Institutions/Colleges and University Departments is as given below:

a) Scheduled caste and Scheduled caste convert to Buddhism	13.0%
b) Scheduled Tribes including those living outside specified areas	10.5%
c) Vimukta Jain	(14 as specified)
d) Nomadic Tribes (NT1)(28 before 1990 as specified)	2.5%
e) Nomadic Tribes (NT2)(Dhangar as specified)	2.5%
f) Nomadic Tribes (NT3)(Vanjari as specified)	2.5%
g) Other Backward Class	19.0%
	Total 50.0%

1. Candidate claiming to belong to categories mentioned against (e),(f) and (g) above will have to furnish certificate from appropriate authority that the candidate's parents do not belong to Creamy Layer as per the relevant orders of the Government.
2. If any of the (a) to (g) categories mentioned above does not get the required number of candidates for the percentage laid down in a University area, the seats so remaining vacant shall be filled in from among the candidates of remaining reserved categories with reference to the inter-se-merit of all candidates belonging to the reserved categories from the same University area. However, the total reservation shall not exceed 50%. After doing so the seats remaining vacant shall be filled in with reference to inter-se-merit of all the candidates from the same University area.

(C) Selection Basis:

The selection would be done as per the guidelines given by the Director of Technical Education Maharashtra State time to time.

(III) Number of Lectures and Practical:

Lectures and Practical should be conducted as per the scheme of lectures and practical indicated in the course structure.

Practical Training and Project Work:

At the end of the sixth semester of study, a student will be examined in the course "Project Work".

1. Project work may be done individually or in groups in case of bigger projects. However if project is done in groups, each student must be given a responsibility for a distinct module and care should be taken to see the progress of individual modules is independent of others.
2. Students should take guidance from an internal guide and prepare a Project Report on "Project Work" in 2 copies to be submitted to the Director of the Institute by 30th April. Whenever possible, a separate file containing source-code listings should also be submitted. Every student should also submit at least 4 typed copies of their project synopsis. Their respective Institutes should forward one copy of this synopsis to each of the external panel members, in advance of the project viva dates.
3. The Project Synopsis should contain an Introduction to Project, which should clearly explain the project scope in detail. Also, Data Dictionary, DFDs, ERDs, File designs and a list of output reports should be included.
4. The project Work should be of such a nature that it could prove useful or be relevant from the commercial/management angle.
5. The project report will be duly accessed by the internal guide of the subject and marks will be communicated by the Director to the University along with the marks of the internal credit for theory and practical to be communicated for all other courses.
6. The project report should be prepared in a format prescribed by the University, which also specifies the contents and methods of presentation.
7. The major project work carry 200 marks for internal assessment and 300 marks for external viva. The external viva shall be conducted by a minimum of two external examiners. The mini project work would be departmental.
8. Project work can be carried out in the Institute or outside with prior permission of the Institute.
9. Project viva-voce by the University panel will be conducted in the month of April-May.

(V) Assessment:

In total 160 credits represent the workload of a year for MCA program.

Total credits=160, 1 credit = 15 lecture Hrs, 100 Marks SUBJECT= 4 CREDITS

Semester – I	27 credits
Semester – II	27 credits
Semester – III	27 credits
Semester – IV	27 credits
Semester – V	27 credits
Semester – VI	25 credits

Credit hours are based on the number of "contact hours" per week in class, for one term; formally, Semester Credit Hours. One credit will represent 12 to 15 teaching hours depending on technical and management subjects.

The final total assessment of the candidate is made in terms of an internal (concurrent) assessment and an external (university) assessment for each course. In total the internal(concurrent) to external(university) marks ratio is maintained 50 : 50.

In general

1. For each paper, 30% marks will be based on internal assessment and 70% marks for semester and examination (external assessment), unless otherwise stated.
2. The division of the 30 marks allotted to internal assessment of theory papers is on the basis of tutorial paper of 15 marks and seminars, presentations and attendance of 15 marks.
3. The marks of the mini project would be given on the basis of internal assessment of the project, project viva and project report.
4. The marks of the practical would be given on internal practical exam & oral.
5. The internal marks will be communicated to the University at the end of each semester, but before the semester and examinations. These marks will be considered for the declaration of the results.

(VI) Examination:

Examinations shall be conducted at the end of the semester i.e. during November and in May. However supplementary examinations will also be held in November and May.

(VII) Standard of Passing:

1. Every candidate must secure atleast Grade D in Concurrent Evaluation as well as University Examination as separate heads of passing for each course. Internal as well as external examination will be held in November and May.

Conversion of Marks to Grade Points & Grades: The marks shall be converted to grade points and grades using Table I below.

Table I: Points Grading System

Sr. No.	Marks	Grade	Grade Point
1	100 - 75	O - Outstanding	06
2	74 - 65	A - Very Good	05
3	64 -55	B - Good	04
4	54 - 50	C - Average	03
5	49 - 45	D - Satisfactory	02
6	44 - 40	E - Pass	01
7	39 - 0	F - Fail	00

(VIII) Reassessment of Internal Marks:

In case of those who have secured less than passing percentage of marks in internal i.e. less than 40%, the institute will administer a separate internal test. The results of which may be conveyed to the University as the Revised Internal Marks.

In case the result of the revised internal test is lower than the original marks then the original marks will prevail. In short, the rule is higher of the two figures should be considered.

However, the institute will not administer any internal test, for any subject for those candidates who have already secured 40% or more marks in the internal examination.

(IX) Backlog:

Candidates can keep terms for any semester of M.C.A., irrespective of the number of subjects in which he/she has failed in the previous MCA semester examinations.

(X) Board of Paper Setters /Examiners:

For each Semester and examination there will be one board of Paper setters and examiners for every course. While appointing paper setter /examiners, care should be taken to see that there is at least one person specialized in each unit course.

(XI) Class:

The performance of a student will be evaluated in terms of two indices, viz.

- a) *Semester Grade Point Average (SGPA)* which is the Grade Point Average for a semester
- b) *Cumulative Grade Point Average (CGPA)* which is the Grade Point Average for all the completed semesters at any point in time.

Semester Grade Point Average (SGPA): At the end of each semester, SGPA is calculated as the weighted average of GPI of all courses in the current semester in which the student has passed, the weights being the credit values of respective courses.

SGPA = Grade Points divided by the summation of Credits of all Courses.

$$SGPA = \frac{\sum \{C * GPI\}}{\sum C} \text{---for a semester.}$$

Where GPI is the Grade and C is credit for the respective Course.

Cumulative Grade Point Average (CGPA):Cumulative Grade Point Average (CGPA) is the grade point average for all completed semesters. CGPA is calculated as the weighted average of all GPI of all courses in which the student has passed up to the current semester.

Cumulative Grade Point Average (CGPA) for the Entire Course

$$SGPA = \frac{\sum \{C * GPI\}}{\sum C} \text{ for all semesters taken together.}$$

Where GPI is the Grade and C is credit for the respective Course.

IMPORTANT NOTE:

If a student secures F grade in either or both of Concurrent Evaluation or University Evaluation for a particular course his /her credits earned for that course shall be ZERO.

Award of Grade Cards: The University of Pune under its seal shall issue to the learners a grade card on completion of each semester. The final Grade Card issued at the end of the final semester shall contain the details of all courses taken during the entire programme for obtaining the degree.

Final Grades: After calculating the SGPA for an individual semester and the CGPA for entire programme, the value shall be matched with the grade in the Grade Points & Descriptors Table as per the Points Grading System and expressed as a single designated GRADE (as per Table II) such as O,A, B, etc....

Table II: Grade Points & Descriptors

Sr. No.	Marks	Grade	Grade Point
1	100 – 75	O – Outstanding	06
2	74 – 65	A – Very Good	05
3	64 -55	B – Good	04
4	54 – 50	C – Average	03
5	49 – 45	D – Satisfactory	02
6	44 – 40	E – Pass	01
7	39 – 0	F – Fail	00

The description of the final grades shall be as follows:

O: Outstanding (Excellent Analysis of the topic - 75% and above)

Accurate knowledge of the primary material, wide range of reading, logical development of ideas, originality in approaching the subject. Neat and systematic organization of content, elegant and lucid style.

A: Very Good (Excellent Analysis of the topic - 65 to 74 %)

Accurate knowledge of the primary material, acquaintance with seminal publications, logical development of ideas. Neat and systematic organization of content, effective and clear expression.

B : Good (Good Analysis and treatment of the topic - 55 to 64 %)

Basic knowledge of the primary material, logical development of ideas. Neat and systematic organization of content, effective and clear expression.

C : Average (Some important points covered – 50 to 54%)

Basic knowledge of the primary material, logical development of ideas. Neat and systematic organization of content, good language or clear expression.

D: Satisfactory (Some points discussed – 45 to 49%)

Basic knowledge of the primary material, some organization of content, acceptable language or expression.

E: Pass (Any two of the above – 40 to 44%)

F: Fail (None of the above – 0 to 39%)

A student who secures grade E or above in a course is said to have completed /earned the credits assigned to the course. A student who completed the minimum credits required for the MCA programme shall be declared to have completed the programme.

NOTE:

The Grade Card for the final semester shall indicate the following, amongst other details:

- a) Grades for concurrent and university evaluation, separately, for all courses offered by the student during the entire programme along with the grade for the total score.
- b) SGPA for each semester.
- c) CGPA for final semester.
- d) Total Marks Scored out of Maximum Marks for the entire programme, with break-up of Marks Scored in Concurrent Evaluation and University Evaluation.
- e) Marks scored shall not be recorded on the Grade Card for intermediate semesters.
- f) The grade card shall also show the 10-point scale and the formula to convert GPI, SGPA, and/or CGPA to percent marks.

(XII) Medium of Instruction:

The medium of Instruction will be English.

(XIII) Clarification of Syllabus:

It may be necessary to clarify certain points regarding the course. The syllabus Committee should meet at least once in a year to study and clarify any difficulties from the Institutes.

(XIV) Revision of Syllabus:

As the computer technology is changing very fast, revision of the syllabus should be considered every 3 years.

(XV) Teaching and Practical Scheme:

Total credits=160, 1 credit = 15 lecture Hrs, 100 Marks SUBJECT= 4 CREDITS

University of Pune

Syllabus for Masters of Computer Application

For Academic Year 2012-2013

Semester I					
Sr. No.	Subject Code	Subject Title	Internal	External	Credits
1	IT11	Computer Organization	30	70	4
2	IT12	C Programming	30	70	4
3	IT13	Software Engineering	30	70	4
4	BM11	Principles and Practices of Management and Organizational Behavior	30	70	4
5	BM12	Business Process Domains with Cost and Financial Accounting	70		3
6	MT11	Discrete Mathematics	30	70	4
7	IT11P	Mini project using C	70		2
8	SS1L	Soft Skill - Word Power, Business English	30		1
9	BM12L	Business Process Domains with Cost and Financial Accounting	30		1
Total			350	350	27

Semester II					
Sr. No.	Subject Code	Subject Title	Internal	External	Credits
1	IT21	Object Oriented Programming with C++	30	70	4
2	IT22	Database Management System	30	70	4
3	IT23	Operating system Concepts	30	70	4
4	BM21	Management Information System and Business Intelligence	30	70	4
5	IT24	Enterprise Resource Planning	30	70	4
6	BM22	Soft Skills	70		2
7	IT21L	Mini Project using C++	50		2
8	IT22L	Mini Project based on RDBMS Concept	50		2
9	SS2L	Soft Skill - Group Discussion	30		1
Total			350	350	27

Semester III					
Sr. No.	Subject Code	Subject Title	Internal	External	Credits
1	IT31	Web Technologies	30	70	4
2	IT32	Data Communication And Computer Networks	30	70	4
3	IT33	Data Structure using C++	30	70	4
4	IT34	Advanced Database management System	30	70	4
5	IT35	Object Oriented Analysis And Design	30	70	4
6	MT31	Research Methodology and Tools	70		2
7	IT31P	Mini Project based on Web Technology	50		2
8	IT31L	Mini Project based on Data Structure concept	50		2
9	SS3L	Soft Skill - Technical Writing	30		1
Total			350	350	27

Semester IV					
Sr. No.	Subject Code	Subject Title	Internal	External	Credits
1	IT41	Java Programming	30	70	4
2	IT42	Mobile Computing	30	70	4
3	IT43	Information Security And Audit	30	70	4
4	IT44	Design And Analysis of Algorithm		70	3
5	MT41	Optimization Technique	30	70	4
6	EC41	Elective - I	70		2
7	IT41L	Java Lab	50		2
8	IT41P	Mini Project Using Mobile Computing	50		2
9	SS4L	Soft Skill – Presentation Skill	30		1
10	EC41L	Business Scenario – Elective Lab	30		1
Total			350	350	27

Semester V					
Sr. No.	Subject Code	Subject Title	Internal	External	Credits
1	IT51	Software Testing And Quality Assurance	30	70	4
2	IT52	Software Project Management	30	70	4
3	IT53	Emerging Trends in Information Technology	30	70	4
4	IT54	Advanced Development Technology		70	3
5	IT55	Advanced Internet Technology	30	70	4
6	EC51	Elective - II	70		2
7	IT51P	Mini project using AIT And ADT	50		2
8	IT51L	Case Tools Lab	50		2
9	SS5L	Soft Skill – Interview Skill	30		1
10	EC51L	Advance Technology – Elective Lab	30		1
Total			350	350	27

Semester VI					
Sr. No.	Subject Code	Subject Title	Internal	External	Credits
1	IT61P	Project	250	250	25

Note : Elective subject choice is based on Cafeteria approach which encourages and allows students to choose elective subjects from across specializations. The list below offers wide ranging choice for students to opt for courses based on their aptitude and their career goals.

Elective Group Code	Elective Group	Course Code	Course title
EC01	Business Intelligence	EC0101	Data Warehousing and BIG DATA
		EC0102	Data Mining
		EC0103	Business Intelligence Tools
		EC0104	Applications of Business Intelligence
EC02	Cloud Computing	EC0201	Virtualization
		EC0202	Cloud Computing Concepts
		EC0203	Cloud Solutions
		EC0204	Microsoft Azure Platform
EC03	Data Analysis	EC0301	Introduction to Statistics
		EC0302	Introduction to MS-Excel

		EC0303	Data Analysis using MS-Excel
		EC0304	Introduction to SPSS
EC04	Embedded Systems	EC0401	Introduction to Electronics
		EC0402	Embedded System Design and Implementation
		EC0403	Communication in Embedded Systems
		EC0404	Wireless Communication
EC05	Game Programming	EC0501	Introduction to Computer Graphics
		EC0502	Game Programming using Scratch
		EC0503	Game Programming using Flash
		EC0504	Game Programming using VC++
EC06	High Performance Computing	EC0601	Introduction to Parallel Processing
		EC0602	Programming with FORTRAN
		EC0603	Numerical Methods
		EC0604	Supercomputing in India
EC07	Information Security	EC0701	Ethical Hacking
		EC0702	Applications Information Security
		EC0703	Network Security
		EC0704	Digital Forensics
EC08	Linux Environment	EC0801	Linux Desktop Environment
		EC0802	Shell Programming
		EC0803	Linux System Administration
		EC0804	Linux Network Administration
EC09	Mobile Computing	EC0901	HTML5
		EC0902	JavaScript Programming
		EC0903	Mobile Computing Technologies
		EC0904	Android
EC10	Multimedia Computing	EC1001	Introduction to Multimedia Computing
		EC1002	Adobe Photoshop
		EC1003	Adobe Flash
		EC1004	Management of Digital Audio and Video
EC11	Net-Centric Computing	EC1101	HTML5
		EC1102	JavaScript Programming
		EC1103	AJAX Programming
		EC1104	Web Services
EC12	System Programming	EC1201	System Programming using C Language
		EC1202	System and Device Driver Programming
		EC1203	Embedded and Real-Time Operating Systems
		EC1204	System Programming using VC++
EC13	Mainframe Computing	EC1301	IBM Mainframe
		EC1302	COBOL
		EC1303	DB2
		EC1304	AS/400
EC14	Information Systems	EC1401	Enterprise Resource Planning
		EC1402	E-Commerce
		EC1403	Recommender System
		EC1404	Knowledge Management
EC15	Advanced Operating Systems	EC1501	Embedded Operating System
		EC1502	Real Time Operating System
		EC1503	Distributed Operating System
		EC1504	Mobile Operating System
EC16	Advanced Wireless Communication	EC1601	Wireless Networks and Mobile Systems
		EC1602	Mobile Ad-hoc Networks
		EC1603	Secure Wireless Communications

		EC1604	Programming Mobile Devices
EC17	Open Source Technologies	EC1701	Linux Operating System
		EC1702	Perl Scripting
		EC1703	PHP
		EC1704	Ruby
EC18	Distributed Computing	EC1801	GUI Programming in Java
		EC1802	Networking in Java
		EC1803	Developing Web Applications in Java
		EC1804	Java Web Services
EC19	Advanced Computer Networks	EC1901	Advanced Networking
		EC1902	Wireless Networks & Communication
		EC1903	Network Security
		EC1904	Network Hacking

Semester – 1

Semester I				
Sr. No.	Subject Code	Subject Title	Internal	External
1	IT11	Computer Organization	30	70
<p>Objective: To give basic knowledge of microprocessor, its architecture, components, and their organization. This will introduce the hardware and upcoming processor architecture and its evolution with change in working style.</p>				

Sr. No	Topic Details	Nos. of Session	%	Reference Books
1	Introduction to Digital Computer 1.1 Concept of Digital Computer 1.2 Types of Software – System software / 1.3 Application software / Utility Software. 1.4 Compilers, Interpreters, Assemblers, Linker, 1.5 Loader	3	7.5	1,4,5,7
2	Data Representation and Boolean Algebra 2.1 Binary, Octal, Hexadecimal and their inter-conversion 2.2 1's and 2's complement. 2.3 Binary Arithmetic. & Number Systems – BCD, EBCDIC, ASCII, De-Morgan's Theorem, Duality Theorem, K-Map, Sum of product, Product of Sum, Algebra Rules, Laws, Logic Circuits, NOT,AND, OR, NAND, NOR, XOR, XNOR, Gated diagrams	6	15	2,5,7,14
3	Combinational Circuits & Sequential Circuits 3.1 Half / Full Adder 3.2 Decoder / Encoder 3.3 Multiplexer / Demultiplexer, 3.4 Flip Flops - SR, D, JK, Master – Slave, Edge Triggered D flipflop with timing diagram 3.5 Shift Registers (Any one type) 3.6 Introduction to Counters, Synchronous & Asynchronous counter, Binary counter, mod-10 counter	6	15	6,14
4	Memory System 4.1 Memory Hierarchy 4.2 Primary Memory – DRAM, SDRAM, 4.3 DDR, RDRAM. ROM, PROM, EPROM, 4.4 EEPROM 4.5 Cache memory Structure 4.6 DMA, DMA interfacing with processor	3	7.5	2
5	CPU Organization 5.1 CPU Building Blocks 5.2 CPU Registers, System bus Characteristics, Interface basics with interface block diagram, concept of local	10	25	2, 3, 8, 12, 13

	bus with name of different local buses (only types) 5.3 Addressing Modes 5.4 Interrupt Concept, Interrupt types 5.5 Instruction and Execution cycle 5.6 Hardwired and Micro Program control 5.7 RISC vs. CISC 5.8 Pipelining – Data Path, Time Space Diagram, Hazards			
6	Processor Architecture 6.1 Components of Microprocessor, 6.2 16-Bit (80286) Architecture 6.3 32-Bit (80486) Architecture 6.4 Super scalar Concept 6.5 Pentium Processor Architecture 6.6 Itanium Processor architecture 6.7 64-Bit (Pentium Dual-Core) Architecture	9	22.5	9,15
7	Multi-Processor Organization 7.1 Parallel Processing 7.2 Concept and Block Diagram 7.3 Types (SISD,SIMD,MIMD,MISD) 7.4 Future Directions for Parallel Processors 7.5 Performance of Processors	3	7.5	2,8,9,10
	TOTAL	40	100	

Text Books and Reference Books:

1. Computer Organization & Architecture Carpinell, Pearson
2. Computer System Architecture Morris Man, Pearson, 3rd Edition.
3. Ad. Computer Architecture Kaithwang, Tata McGraw-Hill.
4. Digital Computer Electronics Malvino, Tata McGraw-Hill,4th Edition
5. Micro Computer Systems Yu Cheng Liu & Glann Gibson
6. Digital Electronics By Bartee, Mc-Graw-Hill
7. Introduction to Digital Computer Design V. Rajaraman & Radhakrishnan, PHI
8. Computer Organization and Architecture W. Stalling, Pearson, 8th Edition
9. Intel Micro Processors Barry Brey, Pearson, 7th Edition
10. Computer Organization & Design Pal Chaudhary,PHI, 3rd Edition
11. Microprocessor Architecture Ramesh Gaonkar, Penram International Publishing, 6th Edition.
12. Computer Architecture & Organization J.P. Hayes, McGraw-Hill,3rd Edition
13. Computer Organization Hemchar, Tata McGraw-Hill,5th Edition
14. Digital Logic and Computer Design Morris Mano
15. An Introduction to Intel Family of Processors -James Antonolcos,Pearson,3rd Edition

Semester I				
Sr. No.	Subject Code	Subject Title	Internal	External
2	IT12	C Programming	30	70
Objective: This is the first programming language subject student will learn. This subject will teach them programming logic, use of programming instructions, syntax and program structure. This subject will also create foundation for student to learn other complex programming languages like C++, Java etc.				

Sr. No	Topic Details	Nos. of Sessions	%	Referenc e Books
1	An Overview of C 1.1 A Brief History of C 1.2 Features & characteristics of C 1.3 Structure of a 'C' Program 1.4 Program Development Life Cycle 1.5 Compiler Vs Interpreters 1.6 Compilation & Execution of C Program On Dos & Unix	2	5	1,2,3
2	Variables, Data Types, Operator & Expression 2.1 Character Set 2.2 C Tokens Keywords & Identifiers Constants Integer, Floating Point, Character, String, Enumeration 2.3 Backslash characters / Escape sequences 2.4 Data Types in C 2.5 Variables 2.6 Declaration & Definition 2.7 User-Defined Type declarations 2.8 Operators & Expressions Arithmetic, Relational, Logical, Increment Decrement , Bit wise, Assignment, Conditional 2.9 Type conversions in Expressions 2.10 Implicit Type Conversion 2.11 Explicit Type Conversions 2.12 Precedence & Associability of Operators.	3	8	1,2,3
3	Built in I/O Functions 3.1 Introduction 3.2 Console Input & Output functions 3.3 Formatted Input & Output (scanf/printf) 3.4 sprintf & sscanf	2	7	1,2,3

4	Control Statements 4.1 Introduction 4.2 Selection Statements If, Nested if, if....else, else if Ladder ternary operator, switch, Nested switch, conditional expression 4.3 Iterative Statements while loop, do-while loop, for loop 4.4 Jump Statements Goto & label, break & continue, exit() function 4.5 Compound Statements 4.6 Null Statements	4	7	1,2,3
5	Array & String 5.1 Single Dimension Arrays 5.2 Declaration, Initialization, Accessing array 5.3 Elements, Memory Representation 5.4 Multidimensional Arrays 5.5 Declaration, Initialization, Accessing array 5.6 Elements, Memory Representation 5.7 String (character array) 5.8 Declaration, Initialization 5.9 String Manipulation Functions	3	7	1,2,3
6	Pointers 6.1 Introduction 6.2 Memory Organization 6.3 Basics of Pointer 6.4 Application of Pointer 6.5 Pointer Expressions Declaration of Pointer, Initializing Pointer, De-referencing Pointer Void Pointer Pointer Arithmetic 6.6 Precedence of &, * operators 6.7 Pointer to Pointer 6.8 Constant Pointer 6.9 Dynamic Memory Allocation 6.10 sizeof(), malloc(), calloc(), realloc(), free() 6.11 Pointers and Arrays 6.12 Pointers and character string 6.13 Array of pointers	5	8	1,2,3
7	Function 7.1 Introduction 7.2 Types of functions 7.3 Declaration & Definition 7.4 Arguments & local variables 7.5 Parameter passing 7.6 Call by value & Call by reference 7.7 Passing arrays, strings to functions 7.8 Pointers to functions	5	9	1,2,3,8

	7.9 Recursion			
8	Storage Classes & Scope 8.1 Meaning of Terms 8.2 Scope - Block scope & file scope 8.3 Storage Classes Automatic Storage, Extern Storage, Static Storage, Register Storage	2	6	1,2,3
9	Structure, Union, Enumeration & typedef 9.1 Structures Declaration and Initializing Structure, Accessing Structure members, Structure Assignments, Array of Structures, Nested structure, Passing Structure to function, Structure Pointer, typedef keyword 9.2 Unions Declaration and Initializing Union, 9.3 Accessing union members, 9.4 Difference between Structure & Union 9.5 Enumerated data type	3	8	1,2,3,4
10	C Preprocessor 10.1 Introduction 10.2 Preprocessor Directive Macro Substitution, File Inclusion directive, Conditional Compilation directives	1	6	1,2,3
11	File handling 11.1 Introduction 11.2 Defining & Opening a File 11.3 Closing a File 11.4 Input/Output Operations on Files 11.5 Error Handling During I/O Operation 11.6 Random Access To Files	3	10	1,2,3
12	Bitwise Operators 12.1 Introduction Bitwise AND, OR, Exclusive OR, Bitwise SHIFT Operators 12.2 Applications Masking, Internal Representation of Date 12.3 Bit Fields	2	8	1,2,3
13	Graphics In C 13.1 Introduction 13.2 Drawing Object in C Line, Circle, Rectangle, Ellipse 13.3 Changing Foreground & Background 13.4 Filling Object by Color	4	8	
14	Command Line Arguments	1	3	1,2,3
	TOTAL	40	100	

Text Books and References:

1. C: The Complete Reference: Herbert Schildt, Tata Mc-Graw Hill, 6th Edition
2. Magnifying C : PHI : Arpita Gopal
3. Let us C Solutions: Y.P. Kanetkar, BPB,10th Edition
4. Spirit Of "C": Moolish Cooper, JAICO.
5. Programming in C : S. Kochan, CBS.
6. C Programming Language: Kernighan & Ritchie, PHI,2nd Edition
7. Programming in C: R. Hutchison.
8. Graphics Under C: Y. Kanetkar, BPB.
9. Programming in ANSI C, E. Balgurusamy, Tata Mc-Graw Hill,5th Edition

Semester I				
Sr. No.	Subject Code	Subject Title	Internal	External
3	IT13	Software Engineering	30	70

Sr.No	Topic Details	Nos. of Sessions	%	Reference Books
1	Overview of systems Analysis and design 1.1 Basic System Development Life Cycle 1.2 Different approaches and models for System Development: Waterfall Prototyping Spiral (including WIN-WIN Spiral) RAD 1.3 Group Based Approach: JAD 1.4 Role & Skills of system Analyst	4	10	1,5,6,9
2	Software Requirements Specification Techniques 2.1 Requirements Anticipation 2.2 Requirements Investigation Fact finding methods 2.3 Requirements Specifications <ul style="list-style-type: none"> • Software requirement Specification (SRS) • Structure and contents of the requirements Specification • types of requirements - functional and non-functional • Quality criteria, • requirements definition, • IEEE standard SRS format, • Fundamental problems in defining requirements Case studies on SRS should be covered	8	18	1,2,10
3	Information requirement Analysis 3.1 Decision Analysis Tools Decision Tree,	9	22	

	Decision Table, Structured English 3.2 Functional Decomposition Diagram 3.3 Process modeling with Data Flow Diagrams 3.4 Entity Relationship Diagram: Identify Entity & Relationships 3.5 Data dictionary Case Studies on Decision analysis tools FDDs, DFDs should be covered			1,5,6,8,12
4	Designing of Input, Output and Program 4.1 Design of input & Control Objectives of Input Design, Data Capture Guidelines Design of Source Document, Input Validations 4.2 Design of output Objectives of Output Design Types Of Output 4.3 User Interface design: Elements of good design, Design issues Features of modern GUI, Menus, Scroll bars, windows, buttons, icons, panels, error messages etc. 4.4 Design of program Specification 4.5 Code Design Case studies should be covered on the Topic	6	18	1,4,8
5	Maintenance 5.1 Types of Maintenance and maintenance cost 5.2 Introduction to legacy systems 5.3 Reverse Engineering 5.4 Role of documentation in maintenance and types of documentation	4	10	1,3,8,10
6	CASE TOOLS 6.1 Introduction to CASE tools, 6.2 Types of CASE tools Project Management Tools. Analysis tools, Design tools, Programming tools, Prototyping tools, Maintenance tools, 6.3 Advantages and disadvantages of CASE TOOLS	4	10	1,4,5,9
7	Current trends in Software Engineering 7.1 Software Engineering for projects & products. 7.2 Introduction to Web Engineering and Agile process	5	12	1,8,9
	TOTAL	40	100	

References

1. Software Engineering by Pressman, TMH,7th Ed.
2. System Analysis and Design by Jalote,Narosa Pub, 3rd Ed
3. Software Engineering by Sommerville,Pearson,8th Ed
4. Software Engineering by W S Jawadekar,TMH.
5. System Analysis & Design methods by Whiten, Bentley,TMH,7th Ed.
6. System Analysis & Design by Elias Awad, Galgotia Pub,
7. Object Oriented Modeling & Design James Rumbaugh, PHI
8. Analysis & Design of Information System James Senn, TMH, 2nd Ed.
9. Analysis & Design of Information System V. Rajaraman,PHI,3rd Ed.
10. Software Engineering Concepts Richard Fairley,TMH.
11. Software Engineering Concept and cases By A. Renavilkar

Semester I				
Sr. No.	Subject Code	Subject Title	Internal	External
4	BM11	Principles and Practices of Management and Organizational Behavior	30	70
Objective: The basic management concepts and use of management principles in the organization will be introduced to student through this elaborative subject.				

Sr. No	Topic Details	Nos. of Sessions	%	Reference Books
1	Management 1.1 The need, scope 1.2 Meaning and Definition 1.3 The process of Management 1.4 Managerial levels/Hierarchy 1.5 Managerial functions Planning Organizing Staffing Directing	4	10	1,2,3,4
	Controlling 1.6 Managerial skills Technical Conceptual Human Resource 1.7 Types of managers Functional Specialize Generalize 1.8 Line and staff managers			

2	Evolution of Management Thought 2.1 Historical perspective 2.2 Classical Theories Taylor Fayol 2.3 Behavioral HR Approach Behavioral Science and Approach 2.4 Management Science Approach 2.5 System approach-with reference to management, organization and MIS 2.6 Contingency approach	4	8	1,2,3,4
3	Managerial Decision Making 1.1 Introduction 1.2 Decision making environment Open Systems Closed system Decision making under certainty Decision making under uncertainty Decision making under risk 1.3 Decision Types /models Structured decisions Unstructured decisions Programmable decisions Non programmable Decisions Classical Model Administrative model 1.4 Decision making tools Autocratic Participative Consultative 1.5 Decision Making Tools 1.6 Herbert Simson's Model 1.7 Principle of Rationality / Bounded Rationality	4	10	1,2,3,4
4	Organization 4.1 Introduction -definition 4.2 Need for Organization 4.3 Process of Organizing 4.4 Organizational structure Functional organization Product Organization Territorial Organization	4	10	5,6,7,8
5	Organizational Behavior 5.1 Definition / Concepts 5.2 Need /importance/ relevance 5.3 An overview	2	8	5,6,7,8
6	Individual Behavior and Understanding Self 6.1 Ego State 6.2 Transactional Analysis	4	10	5,6,7,8

	6.2 Johari Window			
7	Group and Group Dynamics	4	44	5,6,7,8
8	Team Building	4		
9	Leadership	3		
10	Conflict Management	4		
11	Motivation : Concept, Theory X, Y and Z	3		
	TOTAL	40	100	

Important Note: The topics in Units 3,4,5 and 6 should be covered with the help of at-least one exercise each. All topics in Organizational Behavior should be covered with the help of role plays, case studies, simulation, games etc.

Books Recommended:

- | | |
|--|--|
| 1. Principles and Practices of Management | Shejwalkar |
| 2. Essential of management 7th edition | Koontz H & Weirich H TMH |
| 3. Management Today Principles And Practices | Burton & Thakur |
| 4. Mgmt. Principles and Functions | Ivancevich & Gibson, Donnelly |
| 5. Organizational behavior | Stepheb Robbins Pearson 13 th edition |
| 6. Organizational behavior | Keith Davis |
| 7. Organizational behavior | Fred Luthans TMH 10 th edition |
| 8. Organizational behavior | Dr. Ashwatthapa THI 7 th edition |

Semester I				
Sr. No.	Subject Code	Subject Title	Internal	External
5	BM12	Business Process Domains with Cost and Financial Accounting	70	
Objectives:				
1. The processes and practices in business and their applications are taught in subject. The advance business applications like CRM and SCM are also introduced to student.				
2. The financial aspect of business and management will be taught to student through this subject. This will benefit student in understanding and analyzing financial statements of a business.				

PART I: Business Process Domain				
Sr. No	Topic Details	Nos. of Session	%	Reference Books
1	Sales & Distribution 3.1 Sales Budgeting – Market Segments / Customers / Products 3.2 Sales Analysis (While explaining this application consider an organization manufacturing multiple products with sales outlets spread across the country) 3.3 Retail Marketing- New trends - Growth	3	15	1,2,3,4
2	Human Resource 4.1 Employee Database 4.2 Recruitment – Techniques 4.3 Employee Appraisal – Performance, efficiency Leave Accounting and Payroll – Salary calculation and reporting, Income Tax calculation and reporting, Loan Accounting, PF and gratuity, Bonus, Ex-Gratia, Incentive, Super-annuation, Arrears Calculation	3	15	1,2,3,4

	4.4 E-HR Software: Introduction			
3	Banking and e-Commerce Savings Bank Accounting - Real time, ATM and E-Banking	3	15	1,2,3,4
4	6.1 Supply Chain Management(SCM) - Introduction, Concept, Scope and advantages 6.2 Customer Relationship management (CRM) - Introduction, Concept, Scope and advantages 6.3 Forecasting : Demand forecasting and Planning	3	15	1,2,3,4
	Note: Group based activities are expected for all above topics Business Process Domain: 40 Marks			
PART II : Cost and Financial Accounting				
Sr. No	Topic Details	Nos. of Session	%	Reference Books
5	Financial Accounting 1.1. Double Entry Accounting system, Concepts and conventions in accounting, Accounting process, Depreciation 1.2. Journalisation – Rules for Journalisation, posting in a Ledger, subsidiary books, preparation of Trial balance 1.3. Final Accounts – Preparation of Trading and profit and loss, Account and Balance sheet of a Proprietary Firm	5 5 5	20	2,3,4 2,3,4 2,3,4
6	Cost Accounting 1.1 Scope and Objectives of Cost Accounting – Classification and elements of cost, Advantages of Cost Accounting, Comparison between cost accounting and financial accounting. 1.2 Techniques of Cost Accounting a) Marginal costing, Break-even chart, cost, volume profit analysis b) Standard costing advantages, Variance analysis c) Budgetary Control -Types of budgets and Flexible Budget Vs Fixed Budget, Preparation of Simple cash budget & Flexible budgets 1.3 Concept of Management Accounting – Objectives of Management Accounting, Comparison with Cost accounting	3 5 4 4 1	20	1,2,3 1,2,3 1,2,3
	Notes: Financial accounting: 30 marks Cost accounting : 30 marks, (equal weightage to be given for theory and practical problems)			

Part I : 40 Marks & Part II : 30 Marks

Recommended Books:

PART I : Cost and Financial Accounting

- | | |
|-----------------------------------|--|
| 1. Cost and Management accounting | Satish Inamdar, Everest Pub, 18 th Ed. |
| 2. Management Accounting | A.P. Rao, Everest Pub. |
| 3. Management Accounting | Dr. Sanjay Patankar |
| 4. Management Accounting | Khan and Jain, TMH. |
| 5. Management Accounting | Dr. Mahesh Kulkarni, Career Pub, 3 rd Ed. |

PART II: Business Process Domain

1. Personnel Management
2. Engineering MIS for Strategic Business Process
3. Business Applications
4. Business India, India Today Magazines.

C B Mammoria, Himalaya, 29th Ed.
 Arpita Gopal Excel Books
 Dr. Milind Oka, Everest Pub

Semester I				
Sr. No.	Subject Code	Subject Title	Internal	External
6	MT11	Discrete Mathematics	30	70
<p>Objective: This is the first mathematics subject which revises the knowledge acquired previously by the student. Logic, Relations and Functions, Algebraic structures, combinatorics will be introduced in this course.</p>				

Sr. No	Topic details	Nos. of Sessions	%	Reference Books
1	<p>Mathematical logic</p> <p>1.1 Propositions (Statements)</p> <p>1.2 Logical connectivity's, NOT , AND ,OR ,\Rightarrow ,\Leftrightarrow</p> <p>1.3 Compound statements form, truth tables, tautology, implications and equivalence of statements forms logical identities</p> <p>1.4 Normal forms: disjunctive normal form and simplification. Conjunctive normal form, logical implications, valid arguments, methods of proof. Theory of inference of statement calculus, predicate calculus, qualifiers free and bound variables, theory of inference of predicate calculus.</p>	10	25	1 to 7
2	<p>Relations and functions:</p> <p>2.1 Relation defined as ordered n-tuple</p> <p>2.2 Unary, binary, ternary, n-ary</p> <p>2.3 Restrict to binary relations</p> <p>2.4 Complement of a relation, converse</p> <p>2.5 Relation , compositions, matrix</p> <p>2.6 representation and its properties</p> <p>2.7 Graphical representation of relation –</p> <p>2.8 Digraphs ,Properties of binary relation –</p> <p>2.9 Reflexive, irreflexive, symmetric, Asymmetric, transitive Equivalence, equivalence classes, transitive closure– Warshall's algorithm.</p> <p>2.10 Functions : definitions and only bijection</p>	7	17	1 to 6

3	Permutations & Combinations 3.1 Addition principle, multiplication principle, 3.2 Bijection principle, r-permutations of n elements, 3.3 r-combination of n elements, binomial coefficients, 3.4 circular permutations, permutations with repetitions, 3.5 Multinomial theorem, combinations with repetitions, 3.6 Distribution of objects- 3.7 Distinct objects in distinct cells 3.8 Indistinguishable objects in distinct Cells	10	21	1 to 7
4	Number of non-negative integer solutions of linear equations with conditions ,Binomial identities	4	8	1 to 6,7
5	Principle of Inclusion & Exclusion Formula Derangement- restrictions on relative positions	4	8	1 to 7
6	Algebraic structures: 6.1 Operations on sets-Unary, binary, ternary 6.2 definitions of algebraic systems 6.3 (Restrict to binary operations) 6.4 Properties – closure, idempotent, associative, 6.5 communicative, associative, commutative, 6.6 identity, inverse Semi group, Monoid, , abelian group, permutation group, multiplicative abelian 6.7 group, cyclic group 6.8 Subgroups: Cosets, right cosets, left cosets, 6.9 normal subgroups,[For cosets only definitions, No derivations and proofs] , 6.10 Group codes: In group codes only properties without derivations and problems on following subtopics should be covered . 6.11 Weight and Hamming distance, minimum distance of code , generation of codes using parity checks – even parity, odd parity , parity check matrix – Hamming code, for detection and correction errors , Problems on encoding function n decoding functions Application of residue –arithmetic to computers group codes	5	21	1 to 7

Reference

No.

1	Discrete Mathematical Structure
2	Discrete Mathematics
3	Discrete Mathematical Structure
4	Discrete Mathematical Structure
5	Discrete Mathematical Structure
6	Discrete Mathematical Structure
7	Probability and Combinatorics

Book Name

Author

By Kolman,PHI,6 th Ed.
By C.L.Liu,TMH,3 rd Ed
By Rosen,TMH,6 th Ed
By R.K. Sharma
Shankar Rao
By Boxwala,Modak,And Andhar
Deepak Apte

Semester I				
Sr. No.	Subject Code	Subject Title	Internal	External
7	IT11P	Mini project using C	70	
<p>Objective : To make practice of developing a good web application using the techniques students have learnt during the semester, a small project will be done by the student as an assignment.</p> <p>Students are expected to spend 6 hours per week. At the end of semester the students are expected to understand how Information Systems work.</p>				

Semester I				
Sr. No.	Subject Code	Subject Title	Internal	External
8	*SS1L	Soft Skill – Word Power, Business English	30	
<p>Objective : To improve the vocabulary of English and comfort ability with business English. Use of language lab is also encouraged and lot of hearing practice, reading and understanding exposure should be given to the students.</p> <p>After completion of 1st year students can appear for Cambridge English exam.</p>				

Semester I				
Sr. No.	Subject Code	Subject Title	Internal	External
9	BM12L	Business Process Domains with Cost and Financial Accounting	30	
<p>Objective : Students are expected to undertake domain analysis of various business domains and think in terms of analysis and development of information systems for them. Packages like tally needs to be studied in detail to understand accounting process of any standard organization.</p>				

Semester – II

Semester II				
Sr. No.	Subject Code	Subject Title	Internal	External
1	IT21	Object Oriented Programming with C++	30	70
Objectives: By the end of the course students will be able to write C++ programs using more esoteric language features, utilize OO techniques to design C++ programs, use the standard C++ library, exploit advanced C++ techniques				

Sr. No	Topic Details	Nos. of Sessions	%	Reference Books
1	Principle of OOP's 1.1 Introduction 1.2 Procedural Vs Object Oriented Programming 1.3 Classes, Object, Data Abstraction, 1.4 Encapsulation, Inheritance, Polymorphism 1.5 Dynamic Binding, Message Passing 1.6 Object Oriented Languages 1.7 Object Based languages	2	5	3
2	Basics of C++ 2.1 A Brief History of C & C++ 2.2 C Vs C++ 2.3 A Simple C++ Program 2.4 Application of C++ 2.5 Structure & Class 2.6 Compiling & Linking	1	3	1,3
3	Expression 3.1 Tokens, Keywords, Identifiers & Constants, 3.2 Basic Data Types, User-Defined Data Types, 3.3 Symbolic Constant, Type Compatibility, 3.4 Reference Variables, Operator in C++, 3.5 Scope Resolution Operator, 3.6 Member De-referencing Operators, 3.7 Memory Management Operators, 3.8 Manipulators, Type Cast Operator	2	6	1,3
4	Functions In C++ 4.1 The Main Function, Function Prototyping 4.2 Call by Reference, Call by Address, 4.3 Call by Value, Return by Reference 4.4 Inline Function, Default Arguments 4.5 Const Arguments, Function Overloading,	2	9	1,2,3

	4.6 Friend Function			
5	Classes & Objects 5.1 A Sample C++ Program with class 5.2 Access specifiers 5.3 Defining Member Functions 5.4 Making an Outside Function Inline 5.5 Nesting of Member Functions 5.6 Private Member Functions 5.7 Arrays within a Class 5.8 Memory Allocation for Objects 5.9 Static Data Members, Static Member 5.10 Functions, Arrays of Objects2 5.11 Object as Function Argument4s 5.12 Friend Functions, Returning Objects, 5.13 Const member functions 5.14 Pointer to Members, Local Classes 5.15 Object composition & delegation	4	9	1,3
6	Constructor & Destructor 6.1 Constructor 6.2 Parameterized Constructor 6.3 Multiple Constructor in a Class 6.4 Constructors with Default Arguments 6.5 Dynamic Initialization of Objects 6.6 Copy Constructor 6.7 Dynamic Constructor 6.8 Const Object 6.9 Destructor	2	8	1,3
7	Operator Overloading & Type Conversion 7.1 Defining operator Overloading 7.2 Overloading Unary Operator 7.3 Overloading Binary Operator 7.4 Overloading Binary Operator Using Friend function 7.5 Manipulating of String Using Operators 7.6 Type Conversion 7.7 Rules for Overloading Operators	4	6	1,3
8	Inheritance 8.1 Defining Derived Classes 8.2 Single Inheritance 8.3 Making a Private Member Inheritable 8.4 Multilevel Inheritance 8.5 Hierarchical Inheritance 8.6 Multiple Inheritance, Hybrid Inheritance 8.7 Virtual Base Classes, Abstract Classes 8.8 Constructor in Derived Classes 8.9 Nesting of Classes	4	7	1,3
9	Pointer, Virtual Function & Polymorphism 9.1 Introduction 9.2 Pointer to Object, This pointer	3	6	1,3

	9.3 Pointer to Derived Class, 9.4 Virtual Function, 9.5 Pure Virtual Function, 9.6 Early Vs Late Binding			
10	The C++ I/O System Basics 10.1 C++ Streams, C++ Stream Classes 10.2 Unformatted I/O Operation 10.3 Formatted I/O Operation 10.4 Managing Output with Manipulators	1	6	1,3
11	Working with Files 11.1 Introduction 11.2 Classes for File Stream Operation 11.3 Opening & Closing Files 11.4 Detection of End of File 11.5 More about Open(): File modes 11.6 File pointer & manipulator 11.7 Sequential Input & output Operation 11.8 Updating a File : Random Access 11.9 Command Line Arguments	4	8	1,3
12	Template 12.1 Generic Function, 12.2 A function with Generic Data Types, 12.3 Explicitly Overloading a Generic Function, 12.4 Overloading a Function Template, 12.5 Using Standard Parameter with Template Functions, 12.6 Generic Function Restriction, 12.7 Applying Generic Function : Generic Sort, 12.8 Generic Classes, 12.9 An Example with Two Generic Data Types 12.10 Using Non-Type Arguments with Generic Class, 12.11 Using Default Arguments With Template Classes, 12.12 Explicit Class Specification, 12.13 The typename & export keywords	3	8	1,3
13	Exception handling 13.1 Exception Handling Fundamentals 13.2 The try Block, the catch Exception Handler 13.3 The throw Statements 13.4 The try/throw/catch sequence 13.5 Exception Specification 13.6 Unexpected Exception 13.7 Catch – All Exception Handlers 13.8 Throwing an exception from handler 13.9 Uncaught Exception	3	8	1,3
14	Introduction to Standard Template Library 14.1 STL Programming Model, Sequence 14.2 Container Adapter, Integrator 14.3 Algorithms, Predicates, Allocators	2	6	1,6,3
15	Namespace	1	2	1,6,3

	15.1 Introducing Namespaces 15.2 Referring to Members of a Namespace 15.3 The using namespace Statement 15.4 Defining A Namespaces 15.5 Nested Namespaces 15.6 Unnamed Namespaces 15.7 Namespace Aliases			
16	New Style Casts & RTTI 16.1 New-Style Casts, dynamic_cast, static_cast, reinterpret_cast 16.2 const_cast, Runtime Type Information 16.3 (RTTI), A Simple Application of Run-Time 16.4 Type ID, Ttypeid Can be Applied to Template Classes	2	3	1,6,3

Reference Books :

1. C++: The Complete Reference Herbert Schildt, TMH, 5th Ed.
2. Let us C++ Kanetkar, BPB, 2nd Ed
3. Object Oriented Programming with C++ E. Balagurusamy, TMH, 4th Ed.
4. C++ Primer Stanley Lippman & Lajoi, Pearson, 3rd Ed.
5. C++ Programming Language Bjarne Stroustrup, Pearson, 3rd Ed.
6. C++ Programming Bible Al Stevens & Clayton Walnum, Wiley Pub.

Note: Recommended to use VC++ IDE to teach Topic no 14,15, and 16

Semester II				
Sr. No.	Subject Code	Subject Title	Internal	External
2	IT22	Database Management System	30	70
<p>Objective : The concepts related to database, database models, SQL and database operations are covered in this subject. This creates a strong foundation for application database design. Also the students are made aware of the connection between DBMS and the subjects like Data structures- tree, graphs ,Operating system – File Storage , Discrete Mathematics – Relational Operations, Software Engineering – DFD.</p>				

Sr. No	Topic Details	Nos. of Session	%	Reference books
1	Basic concepts 1.1 Database and Need for DBMS 1.2 Characteristics of DBMS 1.3 Database Users 1.4 3-tier architecture of DBMS (its advantages over 2-tier) 1.5 Views of data-schemas and instances 1.6 Data Independence	2	10	1,2,3,6,9

2.	Data Models 2.1 Introduction to various data models – 2.2 Record based & Object based 2.3 Cardinality Ratio & Relationships 2.4 Representation of entities, attributes, relationship attributes, relationship set 2.5 Generalization, aggregation 2.6 Structure of relational Database and different types of keys 2.7 Structure of non-SQL database	5	15	1,2,5,6,9
3.	Relational Model 3.1 Codd's rules 3.2 Relational data model & relational algebra Relational model concept Relational model constraints Relational Algebra 3.3 Relational database language 3.4 Data definition in SQL, Views and 3.5 Queries in SQL, Specifying constraints and Indexes in SQL, Specifying constraints management systems, Oracle / Ingres/ SQL Server / My SQL	5	20	1,2,5,6,9,10,11
4	Relational Database design 4.1 Database Design – ER to Relational 4.2 Functional dependencies 4.3 Normalization Normal forms based on primary keys (1 NF, 2 NF, 3 NF, BCNF, 4 NF, 5 NF) 4.4 Loss less joins and dependency preserving decomposition	7	20	2,6,9,11
5	Transaction And Concurrency control 5.1 Concept of transaction, ACID properties 5.2 Serializability 5.3 States of transaction, 5.4 Concurrency control 5.5 Locking techniques 5.6 Time stamp based protocols 5.7 Granularity of data items 5.8 Deadlock	5	15	2,6,11
6	Storage and File Structure 6.1 Overview of physical storage media 6.2 RAID 6.3 Tertiary storage 6.4 Storage access 6.5 File organization 6.6 Organization of records in files 6.7 Data dictionary storage	5	5	1,2,5,6
7	Crash Recovery and Backup 7.1 Failure classifications 7.2 storage structure 7.3 Recovery & Atomicity	6		

	7.4 Log base recovery 7.5 Recovery with concurrent transactions 7.6 Failure with loss of Non-Volatile storage 7.7 Database backup & recovery from catastrophic failure 7.8 Remote Backup System		10	2,6
8	Security and privacy 8.1 Database security issues 8.2 Discretionary access control based on grant & revoking privilege 8.3 Mandatory access control and role based access control for multilevel security 8.4 Encryption & public key infrastructures	4	5	6
9	Non- SQL Database	1		

Reference books:

- | | |
|---|--|
| 1. Introduction to database systems | C.J.Date, Pearson. |
| 2. Database system concept | Korth, TMH,5 th Ed. |
| 3. Principles of Database Management | James Martin, PHI. |
| 4. Engineering MIS for Strategic Business Processes | Arpita Gopal Excel Books |
| 5. Computer Database organization | James Martin, PHI,3 rd Ed. |
| 6. Fundamentals of Database Systems | Elmasri Navathe, Pearson,5 th ed. |
| 7. Object-oriented modeling and design | Rumbaugh and Blaha, PHI. |
| 8. Object-oriented analysis and design | Grady Booch,Pearson,3 rd Ed. |
| 9. Database Management Systems | Bipin Desai, Galgotia Pub. |
| 10. Database system practical Approach to design, implementation & management | Connolly & Begg, Pearson,4 th Ed. |
| 11. Database Management systems Hill,3 rd Ed. | Ramakrishnan & Gehrke, McGraw-Hill,3 rd Ed. |

Note:

1. PL/SQL to be covered as lab sessions
2. Oracle Lab will be covered as Lab demo sessions.
3. Relational Calculus need not be covered in depth.
4. Case studies on ER diagram, Normalization and SQL should be covered

Semester II				
Sr. No.	Subject Code	Subject Title	Internal	External
3	IT23	Operating system Concepts	30	70
Objective : The core structure, functions and design principles of operating system will be introduced with this subject.				

Sr. No	Topic Details	Nos. of Sessions	%	Reference Books
1	Introduction 1.1 OS Definition, features and functionalities 1.2 Logical View , User View, 1.3 Concept of System Calls & System Programs (Only concept) 1.4 Concept of OS structure 1.5 Concept of Virtual Machine	3	7.5	5,2
2	Process Management 2.1 Process Concept 2.2 Process Control Block 2.3 Process operations : Create, Kill, suspend, resume, wakeup, 2.4 Interprocess Communication, IPC types 2.5 IPC in Client-Server, RTOS	4	11	2
3	CPU Scheduling 3.1 Scheduling Concept 3.2 Scheduling Criteria 3.3 Scheduling algorithms 3.4 Numerical exercise based on algorithms 3.5 Scheduling Evaluation 3.6 Simulation Concept	6	16	2
4	Process Synchronization & Deadlock 4.1 Synchronization concept 4.2 Synchronization Requirement 4.3 Critical Section Problem & Solutions 4.4 Monitors 4.5 Deadlock concepts 4.6 Deadlock prevention & avoidance with single instance and multiple instances of resources 4.7 Deadlock Detection with single instance and multiple instances of resources 4.8 Numerical exercise based on Deadlock 4.9 Deadlock Recovery	8	20	2
5	Memory Management 5.1 Concept 5.2 Memory Management Techniques 5.3 Contiguous & Non Contiguous allocation 5.4 Logical & Physical Memory 5.5 Conversion of Logical to Physical address 5.6 MFT and MVT with search algorithms 5.7 Numerical exercise based on search algorithms 5.8 Paging, Segmentation 5.9 Numerical exercise based on logical to physical address conversion using Paging and segmentation. 5.10 Segment with paging 5.11 Virtual Memory Concept 5.12 Demand paging Page Replacement algorithm with numerical exercises Allocation of Frames	7	17.5	5,2

	5.13 Thrashing			
6	File management 6.1 File Structure 6.2 Protection 6.3 FILE system Implementation 6.4 Directory structure 6.5 Free Space Management 6.6 Allocation Methods 6.7 Efficiency & Performance 6.8 Recovery	3	3.5	1,2,4
7	Disk Management 7.1 Disk Structure 7.2 Disk Scheduling algorithm 7.3 Numerical exercise based on Disk algorithms 7.4 Disk management 7.5 Swap Space concept and Management 7.6 RAID structure 7.7 Disk performance issues	4	12	2
8	Distributed Operating System 8.1 Difference Between Distributed & Centralized OS 8.2 Advantages of Distributed OS 8.3 Types of Distributed OS 8.4 Concept of Global OS 8.5 NOS Architecture	3	7.5	1,2,3
9	Case study of window OS, Non-window OS Introduction to Mobile OS with its different types (Android concept features can be covered here)	2	5	Internet sources

Reference Books :

1. Operating System : Achyut Godbole, TMH, 2nd Ed.
2. Operating System : Galvin, Wiley, 8th Ed.
3. System Programming & OS : D.M. Dhamdhare, TMH, 2nd Ed.
4. Red Hat Bible Core Fedora Linux : Christopher Negus (Wiley Pub.)
5. Operating System : Andrew Tanenbaum, PHI, 3rd Ed.

Semester II				
Sr. No.	Subject Code	Subject Title	Internal	External
4	BM21	Management Information System and Business Intelligence	30	70
Objective: This subject will teach the student foundations of Management Information System along with exposure to modern business information systems.				

Sr. No	Topic Details	Nos. of Session	%	Reference Books
1.	System and Information Concepts 1.1 General Model 1.2 Types of systems 1.3 Subsystems 1.4 Feedback control 1.5 Systems approach to organization 1.6 Law of requisite variety 1.7 Control by exception 1.8 Information Concepts 1.9 Types of Information 1.10 Quality of Information 1.11 Value of Information 1.12 Mini cases related to Feedback Control	5	10	1,2,4,7
2.	Management Information System 2.1 Definitions 2.2 Role of MIS 2.3 MIS in Academics 2.4 Structure of MIS based on management activity and functions 2.5 System and Information concepts to MIS	5	10	1,2,3,4
3.	Decision Making Systems, Modeling and Analysis 3.1 Decision Making Definition and Concept 3.2 Phases of Decision Making Process 3.3 Modeling Process 3.4 Static and Dynamic Models 3.5 Sensitivity Analysis 3.6 Heuristic programming 3.7 Simulation	6	15	1,2,4
4.	Decision Support System 4.1 DSS Definition 4.2 Characteristics & Capabilities of DSS 4.3 DSS Application 4.4 Case Study	5	10	3,5,7
5.	Expert System 5.1 Basic concepts of Expert System 5.2 Structure of Expert System 5.3 How Expert System works 5.4 Expert System Application 5.5 Comparison of Conventional & Expert System 5.6 Case Study	6	10	3,4,7
6.	Executive Information and Support Systems 6.1 Enterprise & Executive Information System Concept and Definition 6.2 Enterprise & Executive Support System Concept and Definition 6.3 Information needs of Executives 6.4 Characteristics and benefits of EIS 6.5 Comparing and Integrating EIS and DSS.	5	10	1,3,4,6

7.	Business Intelligence 7.1 Definition of Problem (Corporate problems & Issues) 7.2 Concept of data mart, data warehousing and data mining , data visualization and presentation 7.3 Designing physical database 7.4 Deploying and supporting DW/BI system 7.5 BI Architecture – spread sheets, concept of dashboard, OLAP, decision engineering, LIS 7.6 BI Tools – concept of dashboard 7.7 BI Application in various domains 7.8 BI Analytics (discriminant analysis and logistic regression, cluster analysis, principle component analysis) 7.9 Hands on training on data mining software XLMiner	8	35	3,6 Reference websites
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References:

1. Management Information System - Gordan Devis, Margrethe H. Oison, TMH, 3rd Ed.
2. Information Systems for Modern Management - Robert Murdick, Joel e. Ross, PHI, 3rd Ed.
3. Decision Support & Intelligent System - Efraim Turban, Pearson, 8th Ed.
4. Management Information System - Waman S. Jawadekar, TMH, 4th Ed.
5. Analysis and Design of Information System - V. Rajaraman, PHI, 2nd Ed.
6. Business Intelligence: Practices, Technologies, and Management- Rajiv Sabherwal, Irma Becerra-Fernandez
7. Management Information systems- Dr. Shubhalaxmi Joshi, Smita Vaze, Himalaya Pub.

Websites:

1. <http://www.amazon.com/Data-Mining-Business-Intelligence-Applications>
2. www.ibm.com/insights/in
3. www.sas.com

Open source BI Tools -

- <http://www.pentaho.com/>
<https://www.jaspersoft.com/>

Semester II				
Sr. No.	Subject Code	Subject Title	Internal	External
5	IT24	Enterprise Resource Planning	30	70
Objective : To learn ERP systems its structure, modules, benefits, implementation and post implementation issues thru real-life cases.				

Sr No.	Topic Details	Nos. of Session	%	Reference Books
1	Enterprise Resource Planning 1.1 Introduction 1.2 What Is ERP? 1.3 Need of ERP. 1.4 Advantage of ERP 1.5 Growth of ERP	4	10	1
2	ERP and related technologies 2.1 Business Process Re-Engineering (BPR) 2.2 Management Information System (MIS) 2.3 Decision Support System (DSS) 2.4 Executive Support System (ESS) 2.5 Data Warehousing, Data Mining 2.6 On-Line Analytical Processing (OLAP) 2.7 Supply Chain Management 2.8 Customer Relationship Management	20	35	2
3	ERP Modules and Vendors 3.1 Finance 3.2 Production Planning, Control and Management 3.3 Sales and Distribution 3.4 Human Resource Management 3.5 Inventory Control System 3.6 Quality Management 3.7 ERP market, Comparison of Current ERP Packages and Vendors, like; SAP, Oracle, PeopleSoft, BAAN etc. 3.8 Disadvantages of non-ERP sys. Importance of ERP vise versa In-house applications 3.9 Benefits of integration 3.10 Standardization of data code	6	20	2
4	ERP Implementation Life Cycle 4.1 Evaluation and selection of ERP package 4.2 Project planning, Implementation, 4.3 Team Training and Testing 4.4 End User Training and Going Live 4.5 Post Evaluation and Maintenance 4.6 Role of organization management & vendor	5	15	3
5	ERP Case Studies 5.1 Post Implementation review of ERP packages 5.2 in manufacturing, Services and Others Organizations, 5.3 Customization of ERP for different types of Industries.	5	20	3

Reference:

1. Enterprise Resource Planning : Alexis Leon, TMH, 2nd Ed.
2. ERP Ware: ERP Implementation Framework : V.K. Garg & N.K. Venkita Krishnan, PHI.
3. ERP Concepts & Planning : V.K. Garg & N.K. Venkita Krishna, PHI, 2nd Ed.

Colleges are encouraged to invite the ERP vendors and demonstrate Programming languages used for developing and customization of ERP and also study the Post implementation changes in the organization.

Semester II				
Sr. No.	Subject Code	Subject Title	Internal	External
6	BM22	Soft Skills	70	
Objectives: <ol style="list-style-type: none"> 1. To encourage the all round development of students by focusing on soft skills. 2. To make student aware about the importance, the role and the content of soft skills through instruction, knowledge acquisition, and practice. 3. To develop and nurture the soft skills that help develop student as a team member, leader, and all round professional in long run have been identified and listed here for references. As the time professional in long run have been identified and listed here for references the time allotment for the soft skill laboratory as small and the fact that the skills are nurtured over years, students are encouraged to follow these skills as self study and self driven process. GuideLine: List of Reference Books is mentioned Topicwise at the end of Soft Skills Syllabus.				

Sr. No	Topic Details	Nos. Of Sessions	%	References
1	1.1 Self Development and Assessment 1.2 Self-Assessment 1.3 Self-Awareness, 1.4 Perception and Attitudes 1.5 Values and Belief System 1.6 Personal Goal Setting 1.7 Career Planning, 1.8 Self-Esteem, 1.9 Building of Self-Confidence	10	15	
2	2.1 Components of communication, Principles of communication barriers, listening skills Verbal Communication 2.2 Includes Planning 2.3 Preparation 2.4 Delivery, Feedback and Assessment of activities like Public speaking Group Discussion Oral Presentation skills, Perfect Interview Listening and observation skills, Body language 2.5 Use of Presentation graphics, 2.6 Use of Presentation aids, Study of communication.	10	25	

3	3.1 Written Communication 3.2 Technical Writing-Technical Reports 3.3 Project Proposals, 3.4 Brochures, 3.5 Newsletters, 3.6 Technical Articles 3.7 Technical Manuals 3.8 Official/Business Correspondence Business letters Memos 3.9 Progress report, Minutes of meeting, Event reporting, Use of style, Grammar and Vocabulary for effective technical writing, 3.10 Use of: Tools, Guidelines for technical writing, Publishing	12	25	
4	4.1 Ethics and Etiquettes 4.2 Business Ethics 4.3 Etiquettes in social as well as Office settings 4.4 Email etiquettes 4.5 Telephone Etiquettes 4.6 Engineering ethics and ethics as an IT professional, Civic Sense.	3	15	
5	5.1 Other Skills 5.2 Managing time 5.3 Meditation 5.4 Understanding roles of Engineer and their Responsibility 5.5 Exposure to work environment And culture in today's job Places 5.6 Improving Personal Memory, Study skills that include Rapid reading, Notes taking, Complex problem solving, creativity.	5	20	

Guidelines for term-work: Marks 50 List of Possible Assignments:

1. Write a personal essay and or resume or statement of purpose which may include:
 - Who am I (family background, past achievements, past activities of significance)
 - Strength and weakness (how to tackle them) (SWOT analysis)
 - Personal Short-term Goals, long-term goals and action plan to achieve them
 - Self-assessment on soft-skills
2. Student could review and present to a group from the following ideas
 - Book review
 - Biographical Sketch
 - Any topic such as an inspirational story/personal values/beliefs/current topic
 - Ethics and etiquettes and social responsibilities as professional.
3. Student will present to a group from the following ideas

- Multimedia based oral presentation on any topic of choice (Business/Technical)
 - Public speaking exercise in the form of debate or elocution on any topic of Choice
4. Student will undergo two activities related to verbal/non-verbal skills from Following
 - Appearing for mock personal interviews
 - Participating in group discussion on current affairs/Social Issue/ethics and etiquettes
 - Participating in games, role-playing exercises to highlight nonverbal skills.
 5. Student will submit one technical document from the following:
 - Project proposal
 - Product brochure
 - Literature survey on any one topic
 - User Manual
 - Technical Help
 6. Student will submit one business document from the following
 - A representative official correspondence
 - Minutes of meeting
 - Work progress report
 7. Students will participate in one or two activities from following:
 - Team games for team building
 - Situational games fro role playing as leaders, members -Organizing mock events - Conducting meetings
 8. Faculty may arrange one or more sessions from following :
 - Yoga and mediation
 - Stress management, relaxation exercises and fitness exercises -Time management and personal planning sessions -Improving memory skills -Improving leadership skills - Improving English conversation skills -Reading comprehension skills & notes taking skills
 9. Students' own SWOT Analysis

Students are expected to keep a personal record of any six activities that they conduct in the soft skill laboratory in the form of a journal. All students need note to do the same assignments. Institute having a freedom within the framework to customize set of activities to be followed.

Assessment Guidelines for term-work assessment

- | | |
|--|----------|
| 1. Written Communications | 20 marks |
| <ul style="list-style-type: none"> - Students could submit for example - Personal resume, essay - Technical document or business document | |
| 2. Spoken communication | 20 marks |
| <ul style="list-style-type: none"> - One elocution event of say 8-10 minutes individually - One group discussion or group presentation event | |
| 3. Overall participation in soft skills based lab activities | 10 marks |
| <ul style="list-style-type: none"> - Attendance and enthusiasm - Participation and contribution in event management, organizing - Group games, group exercises, interpersonal skills observed | |

- Quality of journal for soft skills laboratory indicating personal progress, participation.
4. Guidelines for batch wise Time management for laboratory sessions
(Two hour session at a time)
 - Batches could be of size 25 to 30 students.
 - Written communication exercises could be done for whole batch at same time.
(3 Sessions)
 - Spoken communications exercises can be done with around 10-15 students covered in one two hour slot so total need for exercises.
(2 sessions)
 5. Group discussions could be done for groups of 5-8 students at a time for half so total need for two group discussions for each student of the batch will be required.
(2 sessions)
 6. Sessions could be organized for trainers to give directions, knowledge, experience sharing or common viewing of training material on Video etc.
(4 sessions)
 7. Group exercises for team building, role playing and interaction with professional.
(3 sessions)

References for students for self-improvement by self-study

Topic 1: Any good book like

1. You Can Win - Shiv Khera - Macmillan Books - 2003 Revised Edition
2. 7 Habits of Highly effective people - Stephen Covey, Pocket Books
3. Business Communication? Asha Kaul, PHI
4. Business Communication - M. Balasubramanyam

Topic 2 and 3:

1. John Collin, "Perfect Presentation", Video Arts MARSHAL
2. Jenny Rogers " Effective Interviews", Video Arts MARSHAL
3. Raman Sharma, " Technical Communications", OXFORD
4. Sharon Gerson, Steven Gerson "Technical writing process and product", Pearson Education Asia, LPE third edition.
5. R. Sharma, K. Mohan, Business correspondence and report writing", TAG McGraw Hill ISBN 0-07-044555-9
6. Video for technical education catalog, National education and Information Films Ltd. Mumbai.
7. Management training and development catalog, National education and Information Films Ltd. Mumbai.
8. XEBEC, "Presentation Book 1,2,3", Tata McGraw-Hill, 2000,ISBN 0-40221-3

Topic 4 and 5:

1. Tim Hindle, "Reducing Stress", Essential Manager series Dk Publishing
2. Sheila Cameron, "Business student Handbook", Pitman Publishing
3. Dr. R. L. Bhatia, " Managing time for competitive edge"

4. Lorayne Lucas "Memory Book"
5. Robert Heller, "Effective leadership", Essential Manager series Dk Publishing
6. Newstrom Keith Davis, " Organizational Behavior", Tata McGraw-Hill, 0-07-460358-2

It is proposed that expert from industry be invited to conduct lectures and workshops to understand the industry soft-skill requirement.

Semester II				
Sr. No.	Subject Code	Subject Title	Internal	External
7	IT21L	Mini Project using C++	50	
<p>Objective : This project work provides hands-on for OOP and C++ language learnt in theory session.</p> <p>C++ Programming concepts on class, inheritance, abstraction, encapsulation, dynamic binding, polymorphism, I/O systems, exception handling should be covered</p>				

Semester II				
Sr. No.	Subject Code	Subject Title	Internal	External
8	IT22L	Mini Project based on DBMS concept	50	
<p>Objective : This project work will enhance database handling, data manipulation and data processing skills through SQL & PL/SQL, which will help them in developing data centric computer applications.</p>				

Sr. No.	Topic Details
1	Overview of RDBMS, Oracle introduction
2	Introduction of SQL DDL, DML, DTL Basic Data Types Char, varchar/varchar2, long, number, Fixed & floating point Date, CLOB, BLOB
3	Table Constraint definition Commands to create table
4	Commands for table handling Alter table, Drop table, Insert records
5	Commands for record handling Update, Delete Select with operators like arithmetic, comparison, logical Query Expression operators Ordering the records with orderby Grouping the records
6	SQL functions Date, Numeric, Character, conversion Group functions avg, max, min, sum, count
7	Set operations Union, Union all, intersect, minus
8	Join concept Simple, equi, non equi, self, outer join

9	Query & sub queries
10	Synonym introduction, object type Create, synonym as alias for table & view, drop
11	Sequence Introduction, alter sequence, drop
12	View Intro, create, update, drop
13	Index Introduction, create
14	Primary introduction to DBA User create, granting privileges (Grant, Revoke, Commit, Rollback, Savepoint)
15	Report writer using SQL Title, Btitle, skip, pause, column, SQL, Break on, computer sum
16	Introduction of PL/SQL Advantages of PL/SQL Support of SQL Executing PL/SQL
17	PL/SQL character set & Data Types Character, row, rowed, Boolean, binary integer, number Variable, constant
18	PL/SQL blocks Attribute % type, %rowtype, operators, function comparison numeric, character, date Control structure Condition - if Interactive- loop, for, while Sequential - goto
19	Composite data types Record- declaration, refer, record assignment Table- Declaration, table attributes (Count, delete, exists, first, last, next, prior)
20	Database Triggers Definition, syntax, parts of triggers Types of triggers, enabling & disabling triggers
21	Sub programs Definition Features Cursors
22	Procedures Definition, creating, Parameter
23	Function Definition & implementation
	Total sessions: 40

Recommended Books:

- | | |
|---|--|
| 1. Understanding ORACLE | Perry J. & Later J., BPB Pub. |
| 2. Understanding SQL | Martin Gruber, BPB publication |
| 3. SQL | Scott Urman |
| 4. ORACLE PL/SQL Programming | Scott Urman |
| 5. SQL, PL/SQL the programming language of Oracle | Ivan Bayross, BPB Pub, 4 th Ed. |

Lab Exercises

Exercise1

1. Create table Salespeople with fields snum, sname, city, commission
2. Orders table with field's onum, odate, snum, amt
3. Customers table with field's cnum, cname, city, rating, snum

Exercise 2

1. Add at least 10 records
2. Display all the records with all sales peoples information.
3. Display the details of fields sname, commission
4. Display the odate, snum, onum, amt from orders table.
5. Display snum from orders table without duplications.
6. Display name & city of salesman where city is "Pune
7. Display all details of customer where rating is 100.
8. Display all details from customer table where salespersons number is 1001.
9. Display the numbers of sales persons, with orders currently in the orders table without any repeats.
10. Display all customers where rating is more than 200
11. Display all customers where city is 'Mumbai' rating is more than 100.
12. Display all customers where city is either 'Pune' or 'Mumbai'
13. List all customers not having city 'Pune' or rating more than 100
14. List all orders between order dates 10/03/05 to 30/3/05
15. Display all orders more that 1000 amt.
16. Display names & cities of all salespeople in 'Pune' with a commission above
17. Display all customers excluding those, with rating less than equal to 100, unless they are located in 'Nagar'
18. Display all sales persons names starting with character 'G'
19. Display all sales persons names starting with character 'G', the 4th character is 'A' & the rest of characters will be any.
20. Find all records from customers table where city is not known i.e. NULL.
21. Display all the customer's names begins with a letter A to G.
22. Assume each salesperson has a 12% commission on order amt. Display orderno, snum, commission for that order.

Exercise 3

1. Display all the customers' records, arranged on name.
2. Display all customers records arranged on rating in desc. Order.
3. Display all sales persons records arranged on snum
4. Display the count for total number of customers in customers table.
5. Display the count of snum in order table without duplication of snum.
6. Display the counts of all orders for Feb05
7. Display the count of different non-NULL city values in the customer's table.
8. Display the maximum outstanding amount as blnc+amt
9. Display the minimum rating within customers table.
10. Display average of amt.
11. Display sales persons number wise maximum amt from order table.
12. Display the largest order taken by each salesperson on each date.
13. Display the details of maximum orders above 3000.
14. Display details of orders order number & date wise
15. Display customer's highest ratings in each city.
16. Write a query that totals the orders for each day & places the results in descending order.

Exercise 4

1. Add a column curr_bal in orders table for current balance
2. Increase commission of all sales persons by 200.
3. Delete all orders where odate is less than 5-2-05

Exercise 5

1. Display names of all customers matched with the salespeople serving them.
2. Find all orders by customers not located in same cities as their Salespersons.
3. Display each order number followed by the name of customer who made it.
4. Calculate the amount of salespersons commissions on each order by a customer with a rating above 100.
5. Display the pairs of salespeople who are living in the same city. Exclude combinations of sales people with themselves as well as duplicate rows with the order reversed.
6. Display the names & cities of all customers with same rating as Hoffman

Exercise 6

1. Write a query that uses a sub-query to obtain all orders for the customer named 'Gopal'. Assume you do not know the customer number.
2. Write a query that produces the names & ratings of all customers who have above-average orders.
3. Write a query that selects the total amt in orders for each salesperson for whom this total is greater than the amount of the largest order in table.

Exercise 7

1. Create a union of two queries that shows the names, cities & ratings of all customers. Those with a rating of 200 or greater will also have ratings "high rating", while the others will have the words "low rating".
2. Write a command that produces the name & number of each salesperson & each customer with more than one current order. Put results in alphabetical order.

Exercise 8

1. Create an index that would permit each salesperson to retrieve his or her orders grouped by date quickly.
2. Create a view that shows all of the customers who have highest ratings.
3. Create a view that shows number of salespeople in each city.

Exercise 9

1. Write a PL/SQL block of code that first inserts a record in an 'emp' table. Update the salary by Rs. 2000. then check to see that the total salary does not exceed 20000. if so, undo the updates made to the salaries.
2. HRD manager has decided to raise the salary of employees by 0.15. Write a PL/SQL block to accept the employee number & update the salary of that emp. Display message based on the existence of record in employee table.
3. When any such raise in salary, a record for the same is maintained in emp_raise table. It includes the employee no, the date of raise & the actual raise.
4. Create a stored function to perform item_id check operation. Which accepts a item_id & returns a flag as per the id exist or not.
5. Application using database triggers -
Create a transparent audit system for a table Client_master. The system must keep track of the records that are being deleted or updated. When the record is deleted or modified the original record details & date of operation are stored in audit table & then the delete & update is allowed to go.

Semester II

Sr. No.	Subject Code	Subject Title	Internal	External
9	SS2L	Soft Skill – Group Discussion	30	

Objectives: This course enables students to understand web page site planning, management and maintenance. The course explains the concepts of developing advanced HTML pages with the help of frames, scripting languages, and evolving technologies like DHTML, and XML.

Semester – III

Semester III				
Sr. No.	Subject Code	Subject Title	Internal	External
1	IT31	Web Technologies	30	70
<p>Course Objectives: This course enables students to understand web page site planning, management and maintenance. The course explains the concepts of developing advanced HTML pages with the help of frames, scripting languages, and evolving technologies & scripting like DHTML, jQuery, AJAX and XML.</p>				

Sr. No	Chapter Details	Nos. of Sessions	Weightage %	Reference Books
1	<p>HTML & CSS</p> <p>1.1 WWW, W3C, Common HTML Tags, Types of HTML tags, Text formatting tags, List tags, Image Mapping, Tables, Frames, Forms</p> <p>1.2 Concept of style sheet, Types of Style sheet</p> <p>1.3 Inline Style Sheet, External Style sheet and examples on it</p> <p>1.4 Embedded Style Sheet and Examples</p> <p>1.5 Text formatting properties, Border Properties in CSS and examples</p> <p>1.6 <div> and tag, use of it, Color property in CSS</p> <p>1.7 Use of Classes in CSS, more Examples on CSS</p>	4	15	1, 3, 11, 12
2	<p>2. Javascript</p> <p>2.1 Concept of script, Types of Scripts, Introduction to javascript</p> <p>2.2 Variables, identifiers constants in javascript and examples of each.</p> <p>2.3 Operators in javascripts, various types of javascript operators</p> <p>2.4 Examples on javascript operators,</p> <p>2.5 Control and looping structure, examples</p> <p>2.6 examples on control and looping structures (if, if...else, for, while, do while, switch, etc....)</p> <p>2.7 Concept of array, how to use it in javascript, types of an array, examples</p> <p>2.8 methods of an array, examples on it.</p> <p>2.9 Event handling in javascript with examples</p> <p>2.10 Math and date object and examples on it.</p> <p>2.11 String object and examples on it, and some predefined functions</p>	8	25	2, 3, 11, 12

	<p>2.12 DOM concept in javascript, DOM objects</p> <p>2.13 Window navigator, History object and its methods,</p> <p>2.14 Location object with methods and examples</p> <p>2.15 Validations in javascript , some examples on it.</p> <p>2.16 Some form validation programs.</p>			
3	<p>jQuery& AJAX</p> <p>3.1 Introduction to jQuery, Syntax Overview</p> <p>3.2 Anatomy of a jQuery Script, Creating first jQuery script</p> <p>3.3 Traversing the DOM, Selecting Elements with jQuery,</p> <p>3.4 Refining & Filtering Selections, Selecting Form Elements</p> <p>3.5 Working with Selections - Chaining, Getters & Setters</p> <p>3.6 CSS, Styling, & Dimensions</p> <p>3.7 Manipulating Elements - Getting and Setting Information about Elements, Moving, Copying, and Removing Elements, Creating New Elements</p> <p>3.8 Manipulating Attributes, Utility Methods</p> <p>3.9 Events - Connecting Event to Elements, Namespacing Events, Event handling, Triggering Event handlers, Event Delegation</p> <p>3.10 Animating effects - animate(), click(), hover(), toggle()</p> <p>3.11 Plugins - Create a basic plugin, Finding & Evaluating Plugins, Writing Plugins, Tabs, Panels and Panes examples</p> <p>3.12 jQuery UI and Forms</p> <p>3.13 AJAX Overview, jQuery's AJAX related methods, Ajax and Forms, Ajax Events</p>	10	20	4, 5
4	<p>Apache HTTP Server</p> <p>4.1 Concept of Web Server, Obtaining and Installing Apache Http Server on Windows and Linux</p> <p>4.2 Editing httpd.conf configuration file, Configuration directives in httpd.conf - ServerRoot, PidFile, ServerName,</p> <p>4.3 Add site to /etc/hosts file, DocumentRoot, ErrorLog, Listen, Directory, Files, Location, Redirect, Virtual Hosts, Modules</p> <p>4.4 Creating .htaccess, .htpasswd file, Configuring httpd.conf to allow authentication via .htaccess</p> <p>4.5 Secure Web server - Editing ssl.conf configuration file, Create SSL certificate, Certificate Authority (CA), server key, Certificate Signing Request (CSR),</p>	10	20	6, 7
5	XML	8	20	8, 9, 10, 11

5.1	Concept of XML, features of XML			
5.2	Writing XML elements, attributes, etc.			
5.3	XML with CSS, programs on it.			
5.4	XML with DSO, programs on it.			
5.5	XML Namespace, XML DTD, programs on it.			
5.6	XML schemas, writing simple sheet using XSLT			
5.7	SAX Parser, DOM Parser			
5.8	Introduction to SOAP, Examples on XML			

Reference Books:

1. Complete reference HTML, TMH, 4th Ed.
2. JavaScript Bible, Wiley Pub.
3. HTML, DHTML, JavaScript, Perl & CGI Ivan Bayross, BPB Pub, 3rd Ed.
4. Learning jQuery - Jonathan Chaffer, Karl Swedberg
5. Professional Ajax, 2nd Edition Wrox Press
6. Apache Server 2.0: The Complete Reference - Ryan B. Bloom, TMH Pub.
7. Apache HTTP Server Reference Manual - for Apache version 2.2.17 - Apache Software Foundation
8. Internet Technology at work Hofstetter fred, TMH.
9. Beginning XML Wrox Press
10. XML how to program Deitel & Deitel, Pearson Pub.
11. Programming the World Wide Web Robert W. Sebesta, Pearson, 4th Ed.
12. Web enabled commercial application development using HTML, DHTML, JavaScript, PERL-CGI, BPB Pub, 3rd Ed.

Reference Sites:

1. <http://www.w3schools.com>
2. <http://www.apache.org>

Note: Any editor like front page or Visual Interdev will be taught to the students. For HTML as well as ASP, It will be taught for practical purpose only and will not be considered for the exams.

Semester III				
Sr. No.	Subject Code	Subject Title	Internal	External
2	IT32	Data Communication And Computer Networks	30	70
<p>Objective : Various computer networks, technologies behind networks and application protocols, e-mail and communication protocols along with introduction to advance network technologies like LTE, Cloud computing, Grid computing will be introduced to the students through this subject.</p>				

Sr. No	Topic Details	Nos. of Sessions	%	Reference Books
1	Data Communication Networks and Reference Models 1.1 Components, Data Representation, Data Flow 1.2 Network Criteria, Network Models, Categories of Networks, 1.3 Connection oriented N/Ws 1.4 Connectionless N/Ws, Wireless LAN, Gigabit, 1.5 Interconnection of Networks: Internetwork. 1.6 Protocol Layering, OSI model 1.7 TCP/IP Model, OSI vs. 1.8 TCP/IP	5	12.5	1,2,4
2	Physical communication: 2.1 Hardware Architecture 2.2 Topologies, Media: guided and unguided, Devices, Transmission Techniques 2.3 Twisted Pair, Coaxial Cable, Fiber optics, Wireless Transmission Switching 2.4 Circuit Switching, Message Switching, 2.5 Packet Switching	3	7.5	1,2,5
3	Link Layer Communication 3.1 Error detection and correction techniques, framing, flow and error control, HDLC, P2P protocol.	4	10	1,2
4	IP Addressing & Routing 4.1 Internet Protocol, IP packet format, Addressing: Physical Addresses, Logical Addresses, 4.2 Port Addresses, Specific Addresses. 4.3 IP addresses – Network part and Host Part 4.4 Network Masks, Network addresses and 4.5 Broadcast addresses, Address Classes, 4.6 Loop back address, 4.7 Routing: Types of routing protocol, Border Gateway Protocol (BGP), Routing Information Protocol(RIP), Open Shortest Path First(OSPF). 4.8 IP routing concepts, 4.9 Routing Tables, Stream & Packets 4.10 TCP does? TCP – a reliable pipe, 4.11 TCP connection – Multiple conversations, Port Numbers	6	15	1,2,4
5	IPv6 5.1 Introduction, packet format, addressing scheme, security, applications and limitations of IPv6. IPv4 Vs IPv6.	3	7.5	2
6	Domain Network Services (DNS) 6.1 Domain Names, Authoritative Hosts, 6.2 Delegating Authority, Resource Records, 6.3 SOA records, DNS protocol, DHCP & Scope 6.4 Resolution	3	7.5	1,2
7	Network Applications (HTTP, Email, etc) 7.1 Hyper Text Transfer Protocol (HTTP) 7.2 HTTP communications - HTTP request,	10	25	2

	7.3 Request Headers, Responses, Status Code, 7.4 Error Status Code 7.5 Email- Sending & Receiving Emails, Email 7.6 Addressing, Message Structure 7.7 MIME–Multipurpose Internet Mail Extensions 7.8 SMTP–Simple Mail Transfer Protocol with 7.9 examples 7.10 Mail Exchangers – Delivering a message, 7.11 Mail Boxes 7.12 POP – Post Office Protocol 7.13 IMAP – Internet Message Access Protocol 7.14 FTP – File Transfer Protocol 7.15 Telnet – Remote Communication Protocol 7.16 Proxy Server, Proxy Web Servers			
8	Network Security 8.1 Threat: Active attack, Passive Attack, Cryptography: Symmetric and Asymmetric key cryptography, Security services, Digital signature, IPsec, SSL, VPN, Firewall: Packet filter, application gateway, Unicode.	4	10	3,7,1
9	Advance Network Technologies 9.1 WiFi-IEEE standards- 802.3,802.4,802.5,802.11, 802.11x, WiMax, LTE, Cloud Computing, Grid computing, HSPA, IPTV, FTTH, GPON	2	5	1,2

Reference:

- | | |
|---|--|
| 1. Computer Networks | Andrew S. Tanenbaum, Pearson, 5 th Ed |
| 2. Data Communications and Networking | Behrouz A. Forouzan , TMH, 4 th Ed. |
| 3. Cryptography and Network Security | Atul Kahate , TMH, 2 nd Ed. |
| 4. Network Essential Notes | GSW MCSE Study Notes |
| 5. Internetworking Technology Handbook | CISCO System |
| 6. Computer Networks and Internets with | |
| 7. Internet Applications | Douglas E. Comer |
| 8. Cryptography and Network Security | William Stalling |

Semester III				
Sr. No.	Subject Code	Subject Title	Internal	External
3	IT33	Data Structure using C++	30	70
Objective : The basic algorithms related to handling data like stack, lists, queue, trees and graphs are introduced in this subject. The implementation of these algorithms will be taught using previously learned C programming language.				

Sr. No	Topic Details	Nos. of Sessions	%	Reference Books
1	1.1 Introduction 1.2 Data Definition 1.3 Data Object 1.4 Data Types Built-in Data Type Derived Data Type 1.5 Data Structure 1.6 Implementation of Data Structure	2	5	1,2,3
2	Array 2.1 Array as Data Structure 2.2 Storage Representation of Arrays 2.3 Applications of Arrays 2.4 Polynomial Representation Using Arrays Addition of Two Polynomial Multiplication of Two Polynomial 2.5 Sparse Matrices Addition of Sparse Matrices Transpose of a Sparse Matrix	5	12.5	1,2,3
3	Linked List 3.1 Introduction 3.2 Drawback of Sequential Storage 3.3 Concept of Linked List 3.4 Implementation of Linked List 3.5 Operation of Linked List Creating a List Displaying a List Inserting an element in the List 3.6 Deleting an element 3.7 Other Operation & Applications Reversing a Linked List 3.8 Concatenation of Two Lists 3.9 Representation of Polynomial 3.10 Circular Linked List & Operation 3.11 Doubly Linked List & Operation 3.12 Doubly Circular Linked List & Operation 3.13 Difference between an array and Linked list 3.14 Generalized Linked List 3.15 Header Linked List	8	20	1,2,3
4	Stack 3.1 Introduction 3.2 Definition 3.3 Operation on Stack 3.4 Static & Dynamic Implementation of a Stack 3.5 Application of Stack 3.6 Recursion 3.7 Infix, Prefix & Postfix expression 3.8 Matching Parentheses in an 3.9 Expression	5	12.5	1,2,3
5	Queue	5	12.5	1,2,3

	5.1 Introduction 5.2 Definition of a Queue 5.3 Operation on a Queue 5.4 Static & Dynamic Implementation of Queue 5.5 Types of Queue Circular Queue Priority Queue 5.6 DEQueue 5.7 Application of Queue 5.8 Job Scheduling Reversing Stack using Queue			
6	Tree 6.1 Tree Terminology 6.2 Binary Tree 6.3 Binary Tree Representation 6.4 Binary Search Tree (BST) Creating a BST Binary Search Tree Traversal Preorder Traversal Inorder Traversal Postorder Traversal	5	12.5	1,2,3
7	Binary Threaded Tree 7.1 AVL tree 7.2 B tree introduction to B tree insertion in B tree deletion from B tree introduction to B+, B* tree 7.3 Expression Tree 7.4 Threaded Binary Tree	5	12.5	1,2,3
8	Graph 8.1 Introduction 8.2 Graph Representation Adjacency Matrix Adjacency List 8.3 Graph Traversals Depth First Search Breadth First Search 8.4 Applications of Graph	5	12.5	1,2,3

Reference Books:

- | | | |
|---|---|-------------------------------------|
| 1 | Data Structures Using C and C++ | Langsam Y, PHI, 2 nd Ed. |
| 2 | The Essence of Data Structures using C++ | Brownesy, Kan |
| 3 | Magnifying Data Structures | Arpita Gopal |
| 4 | Data Structures Using C ++ | Malik D S |
| 5 | Data Structures in C ++ | Kutty N.S., Padhye P.Y. |
| 6 | Practical Approach to Data Structures | Hanumanthappa |
| 7 | Data Structure Using C++ | Kasiviswanath N. |
| 8 | Principles of Data Structures Using C and C++ | Das Vinu V. |

9	Data Structure and Algorithms in C++	Joshi Brijendra Kumar
10	Data Structures and Algorithms in C++	Drozdek Adam
11	Data Structures Using C++	Malik D S, CENGAGE Learning Pub.
12	Data Structures with C++: Schaums Outlines	Hubbard John
13	Data Structures: A pseudocode approach with C++	Gilberg R.F., Forouzan B.A.,Cengage
14	Data Structure Using C ++	Jayalakshmi
15	Data Structures Using C and C++ (Tenenbaum)	Tenenbaum, Pearson Pub.
16	Data Structure through C++	Y.P. Kanetkar, BPB,2 nd Ed.
17	Fundamental of DS using C++	Horowitz Sahani, Galgotia pub.
18	DS using C++	Abhyankar

Semester III				
Sr. No.	Subject Code	Subject Title	Internal	External
4	IT34	Advanced Database management System	30	70
<p>Objective: To study the further database techniques beyond which covered in the second year, and thus to acquaint the students with some relatively advanced issues. At the end of the course students should be able to: gain an awareness of the basic issues in objected oriented data models, learn about the Web-DBMS integration technology and XML for Internet database applications, familiarize with the data-warehousing and data-mining techniques and other advanced topics.</p>				

Sr. No	Topic Details	Nos. of Session	%	Reference books
1.	<p>Advance Database Management System – Concepts & Architectures</p> <p>1.1 Centralised</p> <p>1.2 Client-Server</p> <p>1.3 Server system</p> <p style="padding-left: 20px;">Transaction servers</p> <p style="padding-left: 20px;">Data servers</p> <p style="padding-left: 20px;">Cloud based servers</p> <p>1.4 Parallel</p> <p>1.5 Distributed</p> <p>1.6 Web based system</p> <p style="padding-left: 20px;">Web architecture (2 tier , 3 tier, N-tier Architecture)</p> <p style="padding-left: 20px;">Web services – SOAP</p>	4	5	1,4,7
2	<p>Parallel Databases</p> <p>2.1 Introduction</p> <p>2.2 I/O parallelism</p> <p>2.3 Inter-query and Intra-query parallelism,</p> <p>2.4 Inter-operational and Intra-operational parallelism</p> <p>2.5 Design of parallel systems</p>	5	15	1,4

	2.6 Parallelism on Multicore processors			
3	Distributed Databases 3.1 Introduction, 3.2 Homogeneous and Heterogeneous Databases 3.3 Distributed data storage, 3.4 Distributed transactions 3.5 Commit protocols 3.6 Concurrency control 3.7 Availability 3.8 Cloud based databases, 3.9 Directory systems	5	15	1,4
4.	Specialty Databases & Applications 4.1 Object based Databases – OR & OO <ul style="list-style-type: none"> - Overview of Object- Oriented concepts & characteristics - Database design for OODBMS - Objects, OIDs and reference types - Database design for ORDBMS - Comparing RDBMS, OODBMS & ORDBMS 4.2 Temporal databases 4.3 Spatial data & Geographic database 4.4 Multimedia data 4.5 Mobility & Personal databases	8	25	1, 4, 5, 6, 7
5.	Data Warehousing 5.1 Introduction to Data warehousing 5.2 Architecture 5.3 Warehouse schemas, 5.4 Dimensional data modeling- star, snowflake schemas, fact constellation 5.5 OLAP and data cubes 5.6 Operations on cubes 5.7 Data preprocessing -need for 5.8 preprocessing, data cleaning, data integration & transformation, data reduction	5	15	1, 2,4,6,7
6.	Knowledge Base Systems & Data Mining 6.1 Data mining as a part Knowledge Discovery process Introduction to machine learning & data mining 6.2 Association rules 6.3 Market-basket Model, support & confidence Apriori Algorithm Sampling Algorithm Frequent-pattern Tree Algorithm Partition Algorithm Other types of Association rules 6.4 Classification Decision tree induction Bayesian classifiers 6.5 Clustering k-means Algorithm	8	15	1,2,6

	6.6 Approaches to other data mining problems Discovery of sequential patterns Discovery of patterns in time series Regression Neural Networks Genetic Algorithms Text mining Data-visualization 6.7 Applications of Data Mining			
7.	Data exchange through XML 7.1 Structure of XML data 7.2 XML schema 7.3 XML Document & Databases schema Storing & Extracting XML document 7.4 XML Querying XML data XPath XQuery 7.5 Application Program Interface to XML 7.6 XML Applications	5	10	1,6

Reference Books

1. Database system concepts', 6th Edition –Abraham Silberschatz, Henry Korth, S, Sudarshan, (McGraw Hill International)
2. Data Mining: Concepts and systems - Jiawei nan, Micheline Kamber, (MorganKaufmann publishers)
3. Database systems : "Design implementation and management"- Rob Coronel, 4thEdition, (Thomson Learning Press)
4. Database Management Systems - Raghu Ramkrishnan, Johannes Gehrke Second Edition, (McGraw Hill International)
5. Database Management System - Alexis Leao, Mathews Leon, (leon press)
6. Fundamentals of Database Systems - Remez Elmasri , Shamkant Navathe,Pearson,5th Ed
7. Database Systems – a Practical approach to design , implementation & Management - Thomes M. Colnolly, Carolyn E. Begg, Pearson 4th Ed.

Semester III				
Sr. No.	Subject Code	Subject Title	Internal	External
5	IT35	Object Oriented Analysis And Design	30	70
Objectives: <ol style="list-style-type: none"> 1. After completing this course students will be able to: 2. Understand the issues involved in implementing an object-oriented design 3. Analyze requirements and produce an initial design 4. Develop the design to the point where it is ready for implementation 5. Design components to maximize their reuse 6. Learn to use the essential modeling elements in the most recent release of the Unified Modeling Language - UML 2.0 				

Sr. No	Topic Details	Nos. of Sessions	%	Reference Books
1	Introduction 1.1 Two views of software Developments: SSAD and OOAD. Why Object –Orientation? The Object Paradigm 1.2 Object and classes 1.3 Abstraction and encapsulation 1.4 Methods and Message 1.5 Interfaces, Inheritance and Polymorphism 1.6 Access Control – 1.7 The Business case for OO Developments	5	12	1,2,3,4,5
2	Object Oriented Methodologies 2.1 Some of the object Oriented Methodology:- 2.2 Object Oriented Design -Booch 2.3 Object Modeling Techniques - Rumbaugh 2.4 Object – Oriented Analysis - Cood Yourdon 2.5 Object – Oriented Software engineering – Ivar Jacobson Unified Approach 2.6 Diagramming and Notational Techniques using the UML 2.7 UML Notation 2.8 {Analysis Diagramming Techniques.} == Introduction to all (ten) Diagram 2.9 { Design Diagramming Techniques} 2.10 Generalization / Specialization. 2.11 Aggregation and composition 2.12 Association , Cardinality, Navigability, Icons, relationships and adornments.	6	14	3,4,5,6,7,8
3	Object-Oriented Systems Development Process 3.1 Rational Unified Process 3.2 Four Major phases:- Inception , Elaboration, Construction, Transition Requirements Engineering 3.3 Problem analysis. 3.4 Understanding Stockholders need Type of requirements. 3.5 Use-case Model: Writing Requirements	4	14	3,4,5
4	Analysis 4.1 Behavioral Analysis 4.2 Domain Analysis or Business Object Analysis 4.3 Use-case Driven Object Oriented analysis 4.4 The UML approach. Develop use-case Model Use-case Description Documentation Activity Diagram 4.5 Identify the classes. Introduction to different approaches for identifying classes	8	15	3,4,5

	<p>“Noun Phrase” approach “Conman Class Pattern” approach “CRC” approach Usecase Driven Approach. 4.6 Containment and Composition 4.7 Aggregation 4.8 Inheritance, SubTypes and IS-A Hierarchies. 4.9 Association and Link Relationships. 4.10 Diagramming System Events.</p>			
5	<p>Design Phases 5.1 Translating Analysis Concept into Design. 5.2 Optimizing classes and Objects: The Multi-tiered Architecture View 5.3 Mapping System functions to objects. 5.4 Object-to-Object Visibility. 5.5 Collaboration Diagram 5.6 Sequential Diagram 5.7 Specification Class Diagram 5.8 Specifying Object Interfaces. 5.9 Designing the Data Access layer. 5.10 Design User Interface layer 5.11 Designing System Interfaces, Controls and Security.</p>	6	15	3,4,5,10
6	<p>Design Refinement 6.1 Designing for Extensibility 6.2 Design for reusability. 6.3 Portioning class space 6.4 Checking Completeness and correctness.</p>	3	8	10
7	<p>Persistent Object and Database Issues 7.1 The Cood Data Management Domain. 7.2 Object Persistence 7.3 Object-oriented Database Management System 7.4 Object- Oriented verses Relational Database. 7.5 Mapping object to Relational Data structure.</p>	3	8	4,5,10
8	<p>Testing of Object oriented applications 8.1 Introduction to Testing Strategies. 8.2 Impact of Object Orientation on Testing. 8.3 Testing Business Process. 8.4 Design Matrix 8.5 Discovering reusable pattern.</p>	3	8	4,5
9	<p>Patterns 9.1 Benefits of patterns. 9.2 Using patterns During Analysis. 9.3 Using Pattern During Design</p>	2	6	6

References

1. Object Oriented Analysis and Design with Applications by Grady Booch., Benjamin / Cummings , 1994., Pearson Pub.
2. Object – Oriented Modeling and Design by J Rumbaugh, M Blaha, W . Premerlani ,PHI Pub.
3. Magnifying Object Oriented Analysis and Design by Arpita Gopal and Netra Patil : PHI Publication
4. Principles of Object- Oriented Software Development - Anton Eliens , Addison Wesley.
5. Object Oriented System Development - Ali Bahrami McGRAW-HILL International Edition.
6. Object-Oriented Software Engineering - Ivar Jacobson Pearson Education INC
7. Applying UML And Pattern by Craig Larman Pearson Education INC
8. UML Distilled Martin Fowler - Pearson Education INC
9. The Unified Modeling Language User Guide -Grady Booch, James Rumbaugh, Ivar Jacobson- Pearson Education INC
10. The Unified Modeling Language Reference Guide -Grady Booch, James Rumbaugh, Ivar Jacobson-Pearson Education INC
11. Design Object- Oriented Software - Rebecea Wrifs- Brock. Brian Wilkerson, Lauren Wiener
12. Object Oriented Analysis and Design- Bennett , Simon McGraw Hill.
13. Designing Flexible Object Oriented System with UML - Charless Richter, Techmedia
14. Instant UML – Muller – Apress LP
15. UML Instant – Thomas A Pendar – Wiley Publication
16. UML in Nutshell ,O'reilly Pub.

Semester III				
Sr. No.	Subject Code	Subject Title	Internal	External
6	MT31	Research Methodology and Tools	70	
Objective : Research is a tool which helps the manager to identify, understand and solve management problems. Research improves the decision making ability of the manager. The objective of the subject is to create scientific attitude towards solving a management problem and impart knowledge about tools available for carrying out research.				

Sr. No	Topic Details	Nos. of Session	%	Reference Books
1	Introduction and overview	1 Lecture	8	
2	The nature of Computer Science(CS) research; what is research?	3 Lectures	8	
3	Literature searches, information gathering	1 Lecture 1 Practical	8	
4	Reading and understanding research papers	2 Lectures 1 Tutorial	6	

5	Technical writing, referencing, bibliographies	4 Lectures, 1 Tutorial, 5 Practicals	8	
6	Presentation skills, written and oral	2 Lectures	7	
7	Choosing or proposing a project	2 Lectures	6	
8	Project planning, tools and techniques for planning	2 Lectures, 1 Practical	10	
9	Project conduct, time management, risk management, team working	2 Lectures	9	
10	Commercial and economic considerations in IT research and IT industry	3 Lectures, 1 practical	8	
11	Review of legal, ethical, social and professional (LSEP) issues including data protection and standards	2 Lectures	8	
12	Research Methods in Computer Science and Engineering (introduction)	2 Lectures	5	
13	Research Methods (for Software Engineering)	2 Lectures	5	
14	Measured-based research methods in Computer Engineering	2 Lectures	4	

Note: Use of SPSS, MATLAB-Statistical Tool Box, etc. for additional knowledge is recommended.

1. Christian W. Dawson: Projects in Computing and Information Systems (A Student's Guide). Addison Wesley, 2005.
Justin Zobel: Writing for Computer Science. Springer, 2004
2. Research Methodology Methods And Techniques C.R. Kothari, New Age International Pub, 2nd Ed
3. Research Methodology Concepts And Cases Deepak Chawla, Neena Sondhi, Vikas Pub.
4. Business Research Methods By William G. Zikmund, Thomson South-Western, CENGAGE Learning.

Semester III				
Sr. No.	Subject Code	Subject Title	Internal	External
7	IT31P	Mini Project based on Web Technology	50	
<p>Objective: To make practice of developing a good web application using the techniques and scripting students have learnt, they have to do a mini project as an assignment.</p> <ul style="list-style-type: none"> - Students are expected to develop dynamic web projects, based on HTML, DHTML, JavaScript / VBScript and ASP. Documentation need not be stressed in this mini project. - The marks of project will be based on following: <ul style="list-style-type: none"> - Screens, Forms, Validations: 30 marks - Database handling, creating dynamic pages: 20 marks 				

Semester III				
Sr. No.	Subject Code	Subject Title	Internal	External
8	IT31L	Mini Project Based on Data Structure Concept	50	
<p>Objective: The practical implementation of data structure will be done by students through this lab work, which will built efficient programming skills in students.</p>				

IT31 (internal) Lab Assignments (Recommended)

1. Addition and Multiplication of Two Polynomials.
2. Addition and Transpose of Sparse Matrices.
3. Singly Linked List: Create, Display, Insertion, Deletion, Search, Reverse
4. Singly Circular Linked List: Create, Display, Insertion, Deletion, Search,
5. Doubly Linked List: Create, Display, Insertion, Deletion, Search, Reverse
6. Stack Implementation
7. Stack Application: Inter conversion of Infix, Prefix & Postfix
8. Stack Application: Palindrome & Matching Parenthesis.
9. Queue Implementation
10. Queue Application: Job Scheduling.
11. Binary Search Tree Implementation: Creation, Insertion, Deletion, Copy, Mirror, Traversal (Preorder, Post order, In order).
12. Graph Application: Depth First Search, Breadth First Search, And Shortest Path Algorithm.

Semester III				
Sr. No.	Subject Code	Subject Title	Internal	External
9	*SS3L	Soft Skill – Technical Writing	30	

Semester – IV

Semester IV				
Sr. No.	Subject Code	Subject Title	Internal	External
1	IT41	Java Programming	30	70
Objective: To enable the students to understand the core principles of the Java Language and use visual tools to produce well designed, effective applications and applets.				

Sr. No	Topic Details	Nos. of Sessions	%	Reference Books
1	Introduction to Core Java Introduction 1.1 Features of JAVA 1.2 JDK Environment & Tools (javac, java, appletviewer, javadoc, jdb) Object Oriented concepts with respect to Java Difference between C++ & JAVA Java Programming Fundamentals Structure of java program, data types, variables, Operators, Keywords, Naming conventions, Decision making statements, Iterative statements, Type casting, Arrays (One dimensional & Multidimensional) String (String Arrays, String Methods, StringBuffer) 1.3 Creating classes & objects 1.4 Constructors (with all types) 1.5 Garbage collection & finalize() method. 1.6 Implementation of Inheritance Single, Multilevel, Hierarchical, Use of super keyword, super constructor, this keyword 1.7 Implementation of polymorphism Method overloading, Method overriding 1.8 Nested & inner classes 1.9 Modifiers & Access control (Default, public, private, protected, private protected) 1.10 Final variables, Methods & classes 1.11 Abstract methods & classes 1.12 Interfaces 1.13 Packages Packages concept, Creating user defined package, Java built in packages (Java.lang, java.util) 1.14 Exception Handling Exception types, Using try catch, Multiple catch, Nested try, throw, throws, finally, user defined exceptions	6	20	1,2,3,7

2	Applet As Java Applications 2.1 Introduction 2.2 Applet Life Cycle 2.3 Applets specific methods & Related HTML references 2.4 An Applet Skeleton 2.5 The HTML APPLET Tag with all attributes. 2.6 Creating an Applet 2.7 Displaying it using Web Browser, appletviewer.exe 2.8 Passing parameters to applet 2.9 Advantages and Disadvantages of Applet Vs Applications	2	8	1,2,7
3	Abstract Windows Toolkit 3.1 Components and Graphics 3.2 Containers, Frames and Panels 3.3 Layout Managers 3.4 Border layout, Flow layout, Grid layout, Card layout 3.5 AWT all components Event delegation Model Event source and handler Event categories, Listeners, interfaces Anonymous classes, Adapter Classes Swing Libraries Model view Controller design pattern Different layout, menus dialog boxes, text input	5	8	1,2,7
4	Java Input Output 4.1 Java IO package 4.2 Byte/Character Stream 4.3 Buffered reader / writer 4.4 File reader / writer 4.5 Print writer 4.6 File Sequential / Random	4	8	1,2,7,8
5	Java Collection Framework 5.1 Collections Overview 5.2 The Collection Interfaces Collection Interface, List Interface, Set Interface, SortedSet Interface The Collection Classes ArrayList Class, LinkedList Class, HashSet Class, TreeSet Class Accessing a Collection via an Iterator 5.3 The Map Interfaces Map Interface, SortedMap Interface The Map Classes HashMap, TreeMap 5.4 The Legacy Interfaces Enumeration Interface The Legacy Classes 5.5 Vector , Stack Hashtable	5	10	3,6,7
6	JDBC 6.1 Java database connectivity, JDBC Architecture, JDBC API,	4	12	6

	6.2 Types of JDBC drivers 6.3 Steps to create JDBC Application 6.4 Writing first JDBC applications 6.5 Types of statement objects (Statement, PreparedStatement and CallableStatement) 6.6 Types of resultset, ResultSetMetadata 6.7 Inserting and updating records 6.8 JDBC and AWT 6.9 Connection pooling			
7	Multithreading 7.1 Multithreading concepts 7.2 Thread Life cycle 7.3 Creating multithreaded application (Using Thread Class & Using Runnable Interface) 7.4 Thread priorities 7.5 Thread synchronization 7.6 Inter thread communication	4	10	1,2,7,8
8	Networking with Java 8.1 Networking basics Sockets, port Proxy servers Internet addressing 7 URL 8.2 java.net – networking classes and interfaces 8.3 Implementing TCP/IP based Server and Client 8.4 Datagrams – Datagram packet, Datagram server and client 8.5 URL connections	4	8	7,8
9	RMI 9.1 Introduction & Architecture of RMI 9.2 Stubs & skeleton 9.3 Java rmi classes and interfaces 9.4 Writing simple RMI application 9.5 Parameter passing in remote methods (marshalling and unmarshalling)	4	10	6,8
10	Java Beans 9.1 Java Beans Introduction, design pattern 9.2 Writing simple bean 9.3 Beans persistence & introspection	2	6	6

Reference Books:

1. Core Java 2 Volume - I Cay S Horstmann, Fary Cornell, Sun Microsystems Press, 8th Ed.
2. Core Java 2 Volume - II Cay S Horstmann, Fary Cornell, Sun Microsystems Press, 8th Ed.
3. Programming with Java, A Primer E.Balguruswami, McGraw-Hill, 4th Ed.
4. Inside Servlets Dustine R Callway, Pearson Pub.
5. Developing Java Servlets James Goodwill, Techmedia, 2nd Ed.
6. Complete Reference- J2EE Jim Keogh, TMH.
7. Java 2 Complete Reference Patric Naughton, Herbert Schildt, TMH, 7th Ed.
8. Beginning Java Networking Chad Darby, John Griffin & others

Semester IV				
Sr. No.	Subject Code	Subject Title	Internal	External
2	IT42	Mobile Computing	30	70
Objective : To introduce network, system, techniques and applications in Mobile Wireless Computing.				

S.No	Topic Details	No of Sessions	%	Reference Books
1.	Introduction to Mobile Communications and Computing Mobile Computing (MC): Introduction to MC, applications, limitations, and architecture. Cellular Overview Cellular networks, Cellular concept, location management, Handoffs	2	4	1,7
2.	Wireless LANs and Application overview 2.1 WLAN 2.2 Wireless applications 2.3 Mac issues(Hidden and exposed terminals, Near and far terminals), 2.4 Mobile IP 2.5 Mobile ad-hoc networks(MANET) 2.6 TCP Issues 2.7 Disconnected operations 2.8 Data broadcasting 2.9 Mobile agents	4	5	1
3.	3.1 GSM <ul style="list-style-type: none"> • Air-interface, channel structure, timing, • Mobile Services (Bearer, Tele-and-supplementary services) • System Architecture <ul style="list-style-type: none"> - Radio subsystem - Network and switching subsystem - Operation subsystem • Protocols <ul style="list-style-type: none"> 3.1 Localization and calling 3.2 Handover 3.3 Value Added Services <ul style="list-style-type: none"> - SMS - Cell Broadcast Service - MMS - Location Services 3.2 WAP <ul style="list-style-type: none"> • Architecture 	5	8	1

	<ul style="list-style-type: none"> • Protocol stack • Application environment, - application demo 			
4	Access Technologies Blue Tooth, GPRS, 802.11, CDMA 3 Mobile Phone Technologies (1G, 2G, 2.5G, 3G)	3	3	3,7
5	Database Issues 5.1 Hoarding techniques 5.2 Caching invalidation mechanisms 5.3 Client server computing with adaptation, 5.4 Power-aware and context-aware computing, 5.5 Transactional models, query processing, recovery, and quality of service issues.	2	6	8
6	Platform/Operating Systems for application development 6.1 Palm OS 6.2 Windows CE 6.3 Embedded Linux 6.4 J2ME (Introduction) 6.5 Symbian (Introduction)	2	8	1
7	Android application development 7.1 Overview of Android 7.2 Devices running android 7.3 Why Develop for Android 7.4 Features of android 7.5 Architecture of Android, Libraries 7.6 Software development kit	3	8	4,5
8	Designing the user interface. 8.1 Introducing views and view groups, 8.2 Introducing layouts, Creating new views, 8.3 Creating and using Menus	2	8	4,5
9	Starting with Application Coding 9.1 Introducing Intents 9.2 Introducing Adapters 9.3 Using Internet Resources 9.4 Introducing Dialogs 9.5 Capturing Date and Time 9.6 Validating and Handling Input data	3	10	4,5
10	Accessing Location Based Services Application 10.1 Selecting Location Provider 10.2 Finding your location. 10.3 Creating map based activities	2	6	4
11	Data Storage, retrieval and Sharing 11.1 File system in android 11.2 Internal and external storage 11.3 Saving and loading files 11.4 File Management tools	3	10	4,5

12	Introduction to SQLite 12.1 Creating SQLite database, 12.2 Editing Tasks with SQLite 12.3 Cursors and content values 12.4 Working with Android database.	3	10	4
13	Peer to peer to communication 13.1 Accessing Telephony Hardware 13.2 Introducing Android Instant Messaging 13.3 GTalk Service : Using, binding & Making connection 13.4 Managing chat Sessions 13.5 Sending and receiving Data messages 13.6 Introducing SMS 13.7 Using, sending & Listening SMS Messages	3	7	4
14	Accessing Android Hardware 14.1 Audio, Video and Using the camera. 14.2 Introducing Sensor Manager 14.3 Android Telephony 14.4 Using Bluetooth 14.5 Manage network and Wi-Fi connections	2	5	4,5
15	Publishing Android Application to Market	1	2	6

References:

1. Mobile Communications J. Schiller, Addition Wesley Publication
2. GSM System Engineering A.Mehrotra, Addition Wesley Publication
3. Understanding WAP M. Heijden, M. Taylor, Artech House Publication
4. Professional Android™ Application Development Wrox Publications, Reto Meier
5. Hello Android, Introducing Google's Mobile Development Platform, Ed Burnette, Pragmatic Programmers, ISBN: 978-1-93435-617-3
6. Sams teach yourself Android application development, Lauren Dercy and Shande Conder, Sams publishing
7. Mobile Computing: Asoke K Talukdar, Roopa R. Yavagal, TataMcGrawHill
8. Hansmann, Merk, Nicklous, Stober, "Principles of Mobile Computing", Springer, second edition

Semester IV				
Sr. No.	Subject Code	Subject Title	Internal	External
3	IT43	Information Security And Audit	30	70
<p>Objective: To create awareness about the values of Information and how the Information security practices are meticulously implemented in IT companies worldwide.</p> <p>Prerequisites: Fundamentals of computers and Networking technologies, Internet concepts and applications, Database concepts, Exposure to programming languages.</p>				

Sr. No	Topic Details	Nos. of Session	%	Reference Books
1	Introduction to Information Security: 1.1 History and evaluation of Information security CIA triangle 1.2 Components of IS, Control in IT environment, Information security Management system, components of ISMS and conceptual framework 1.3 Steps for developing ISMS.	4	10	1,2,7
2	Need of Information security: 2.1 Threats to information security, Risk to Information systems 2.2 Information security in organization, Introduction to cyber crimes and attacks 2.3 Information security policy, policy definition and security life cycle.	5	10	3,6,10
3	Information Security Policy and Standards: 3.1 Security principles 3.2 Types of Information security policies- Administrative and Technical 3.3 A structure and framework of comprehensive security policy, policy infrastructure, policy design life cycle and design processes, PDCA model, 3.4 Security policy standards and practices - BS7799, ISO/IEC 17799, ISO 27001. Auditing tools such as ISO 27001 ISMS TOOL KIT, NGS AUDITOR, Windows password auditor, ISO IES 27002 2005 IS AUDIT TOOL	8	17	1,2,4,10,11 Websites 3,4,5
4	Domains of IT security- 4.1 user/accepted usage/ access, data access, physical access 4.2 Internet access, e-mail, digital signature, outsourcing, software development and acquisition, hardware acquisition 4.3 Network and telecom, BCP and DRP, security organization structure. 4.4 Domains related security based case studies.	10	30	1,2,3,4,5,7,11
5	IT Governance 5.1 What is IT Governance, good governance, objectives and dimensions, foundation, structure, processes 5.2 IT governance framework- COBIT, ITIL, ISO 17799, IT governance maturity model .	4	10	7,8,9
6	6.1 Auditing concepts ISA need, concept, standards, performance, steps, 6.2 Techniques, methodologies, around and through	4	10	8,9,10

	computer, Controls – Concept objectives, types, risk.			
7	Controls 7.1 Input, process, validation, output, logical access, physical access 7.2 Database, network, environment, BCP, Evidence collection, evaluation and Reporting methodologies.	4	10	3,4,8,9
8	Ethical hacking	1	3	

Reference Books:

1. Information security policies, procedures and standards by Thomas Pettier.
2. Information security Management Hand book- 5th Edition-HAROLD F. TIPTON
3. Computer security by Alfred Basta, Wolf Halton
4. Information security policies- Thomas R.Peltier, Peltier R. Peltier
5. Electronic Signature law by L Padmavathi
6. Network Security by Ankit Fadia
7. Security Plus study guide by Michael Cross, Norrris Johnson
8. Information systems control and Audit by Ron Weber, Pearson Pub.
9. IS control journals from ISACA
10. Information Systems Security: Security Management, Metrics, Frameworks And Best Practices (With Cd) : Nina Gobole
11. Information Security policies made easy version 10: Charles Cresson Wood

Reference websites:

12. www.searchsecurity.techtarget.com
13. www.secure-byte.com
14. www.security-internal-audit.com
15. www.ngssecure.com/services
16. www.pcisecuritystandards.org

Semester IV				
Sr. No.	Subject Code	Subject Title	Internal	External
4	IT44	Design And Analysis of Algorithm		70
Objective : To understand and learn advance algorithms and methods used in computer science to create strong logic and problem solving approach in student..				

Sr. No	Topic Details	Nos. of Sessions	%	Reference Books
1	Introduction 1.1 Algorithm, analysis 1.2 Time complexity and space complexity 1.3 O-notation, Omega notation and Theta notation, 1.4 Heaps and Heap sort, Sets and disjoint set, union and find algorithms. 1.5 Sorting in linear time. 1.6 Tower of Hanoi	5	12.5	1,2
2	2.1 Heaps and Heap sort 2.2 Sets and disjoint set 2.3 Union and find algorithms. 2.4 Sorting in linear time.	4	10	1,2,3
3	Divide And Conquer 3.1 Divide and Conquer 3.2 General Strategy 3.3 Exponentiation. Binary Search 3.4 Quick Sort 3.5 Merge Sort	4	10	1,2,3
4	Greedy Method 4.1 General Strategy, Knapsack problem 4.2 Job sequencing with Deadlines 4.3 Optimal merge patterns 4.4 Minimal Spanning Trees 4.5 Dijkstra's algorithm.	7	17.5	1,2
5	Dynamic Programming 5.1 General Strategy 5.2 Multistage graphs 5.3 OBST, 0/1 Knapsack 5.4 Traveling Salesperson Problem 5.5 Flow Shop Scheduling	6	15	1,2
6	Backtracking 6.1 Backtracking: General Strategy 6.2 N- Queen's problem 6.3 Graph Coloring 6.4 Hamiltonian Cycles, 0/1 Knapsack	6	15	1,2
7	Branch and Bound 7.1 General Strategy, 0/1 Knapsack 7.2 Traveling Salesperson Problem	5	12.5	1,2
8	NP-HARD AND NP-COMPLETE PROBLEMS Basic concepts, of NP-Hard And NP-Complete Problems (Only concepts should be covered)	3	7.5	1,2
<p>Internal marks for DAA should be based on the following programs which can be solved and implemented using any language</p> <ul style="list-style-type: none"> ○ Towers of Hanoi in Topic - I ○ N-Queens problem in Topic -VI ○ Knapsack problem in Topic - IV, V, VI & VII 				

Reference Books

1. Bressard, "Fundamental of Algorithm." PHI
2. Horowitz/Sahani, "Fundamentals of computer Algorithms", Galgotia.
3. Magnifying Data Structures, Arpita Gopal : PHI Publications
4. Thomas H Cormen and Charles E.L Leiserson, "Introduction to Algorithm" PHI
5. A. V. Aho and J.D. Ullman, "Design and Analysis of Algorithms", Addison Wesley

Semester IV				
Sr. No.	Subject Code	Subject Title	Internal	External
5	MT41	Optimization Technique	30	70
Objective: To introduce the linear programming and related optimization theories to solve real life /simulated problems.				

Sr. No	Topic details	Nos. of Sessions	%	Reference Books
1	Linear Programming 1.1 Various definitions, statements of basic theorems and properties, Advantages, 1.2 Limitations and Application areas of Linear Programming 1.3 Linear Programming – The Graphical method – Graphical Solution methods of Linear Programming problem, 1.4 Problems, Phase II of the Simplex Method, 1.5 Primal and Dual Simplex Method, 1.6 Big –M method. 1.7 Transportation Problem and its solution, 1.8 Assignment Problem and its solutions by Hungarian Method	10	27	4,8,6,9
2	Sequential model and related Problems Processing n jobs through A) 1 machine and B) 2 machines	6	15	1 to 6
3	Queuing Theory 3.1 Characteristics of Queuing Models 3.2 Transient and Steady states of the System 3.3 Model – I [(M/M/1) : (FCFS / ∞ /∞)] 3.4 Model II – Generalization of Model 3.5 [(M/M/1) : (FCFS / ∞ / ∞)] (Birth-Death Process) 3.6 Miscellaneous Problems	7	17	2,5
4	Replacement Theory 4.1 Replacement of items that deteriorates. When money value is consider & Problems	4	9	3,1

	4.2 Replacement of items that fails suddenly 4.3 Individuals and Group Replacement- Miscellaneous Problems			
5	INVENTORY THEORY 5.1 Inventory Model Building 5.2 Single item deterministic Model 5.3 Inventory Control Models without strategies 5.4 Inventory Control Models with shortages	5	11	5,8
6	PERT & CPM 6.1 Basic differences between PERT and CPM. 6.2 Arrow Networks, time estimates, Earliest expected time Latest – allowable occurrences time Forward Pass Computation Backward Pass Computation 6.3 Representation in Tabular Form 6.4 Critical Path 6.5 Probability of meeting scheduled date of completion, 6.6 Calculation on CPM network. 6.7 Various floats for activities 6.8 Critical path updating projects. 6.9 Operation time cost trade off Curve project 6.10 Time cost – trade off Curve- 6.11 Selection of schedule based on Cost Analysis, Crashing the network	8	21	4,6,7,8,9

References :

Reference No.	Book Name	Author
1	Introduction to Operation Research : A Computer Oriented Algorithm Approach	By Filet B. E.
2	Fundamentals of Queuing Theory	By Gross D. and Ilaris C.M.
3	Introduction to Operation Research	By Hiller F. and Lieberman G. J., TMH,8 th Ed.
4	Operations Research	By Kanti swarup, Gupta P.K. and ManMohan, S.Chand And Sons, 15 th Ed.
5	Mathematical Programming technique	By Kambo N.S., East-West Press.
6	Optimization Methods in Operations Research and System Analysis	By Mital K.V.,New Age Pub., 3 rd Ed
7	The Critical Path Method	By Saffer L.R., Fitter J.B. and Meyer W.L.
8	Operation Research	By J.K. Sharma, McMillon,4 th Ed.
9	Operation Research	By Taha H.A.,PHI,7 th Ed.

Semester IV				
Sr. No.	Subject Code	Subject Title	Internal	External
6	EC41	Elective - I	70	

Semester IV				
Sr. No.	Subject Code	Subject Title	Internal	External
7	IT41L	Mini Project based on Java	50	
<p>Objective: This project work will provide hands on practice to student to enhance their Java Programming Skills. Java concepts such as Interfaces, Packages, Exception Handling, Applet, multithreading, Abstract Windows Toolkit, Java Input Output, Networking, JDBC, RMI, Java Beans can be included.</p>				

Semester IV				
Sr. No.	Subject Code	Subject Title	Internal	External
8	IT41P	Mini Project Using Mobile Computing	50	

1. XHTML, ChTML Web Site Development
2. Setup WAP2 between Access point and Laptop
3. Bluetooth link between Laptop and Mobile Phone, File Transfer, Application Install,
4. Security Setting
5. Mobile Device Simulator
6. Mobile Handset Programming
7. Design of Touch Screen User Interface

Semester IV				
Sr. No.	Subject Code	Subject Title	Internal	External
9	SS4L	Soft Skill – Presentation Skill	30	

Semester IV				
Sr. No.	Subject Code	Subject Title	Internal	External
10	EC41L	Elective – I Lab	30	

Semester – V

Semester V				
Sr. No.	Subject Code	Subject Title	Internal	External
1	IT51	Software Testing And Quality Assurance	30	70
Objective: To enable student to learn Software Testing and Quality Assurance good practices with the help of various software testing techniques, Strategies, tools and case studies.				

Sr. No	Topic Details	Nos. of Sessions	%	Reference Books
1	Software Quality Assurance Fundamentals 1.1 Definition of Quality, QA, QC, SQA 1.2 SQA Planning & Standards 1.3 SQA Activities 1.4 Building blocks of SQA 1.5 Quality factors 1.6 Software Quality Metrics 1.7 Process Improvement- Process and Product Quality - CMM, Six Sigma	6	15	1,2,7
2	Software Reliability 2.1 Reliability Measures 2.2 Reliability models	2	5	1
3	Software Verification & Validation Activities 2.1 Verification & Validation Concepts 2.2 Verification & Validation Planning 2.3 Software inspections 2.4 Automated static Analysis 2.5 Clean room Software Development 2.6 Case Study : Software Inspection Checklist preparation	3	7	1,2,7
4	Software Testing Fundamentals 4.1 Definition & Objectives 4.2 Types of software bugs 4.3 Bug life cycle 4.4 Testing lifecycle 4.5 Test Plan 4.6 Test Cases – Definition, Test Case Designing 4.7 Case Studies on Test Plan & Test Case	7	18	1,4,5

5	Black Box & White Box Testing 5.1 Functional Testing (Black Box) Equivalence partitioning, BVA, Cause- 5.2 Effect graphing, Syntax testing 5.3 Structural Testing (White Box) Coverage testing, Statement coverage, 5.4 Branch & decision coverage, Path coverage 5.5 Domain Testing 5.6 Non functional testing techniques: Localization, Internationalization Testing 5.7 Black box vs. White Box	5	12	1,5,6
6	Different types of Testing 6.1 Unit Testing 6.2 Integration Testing 6.3 System Testing – Performance, Load, Stress, Security, Recoverability, compatibility testing 6.4 Regression Testing 6.5 Installation Testing 6.6 Usability Testing 6.7 Acceptance Testing- Alpha testing & Beta testing 6.8 Static vs. Dynamic testing 6.9 Testers workbench 6.10 Manual vs. Automatic testing	6	15	1,3,4,5,7
7	Static & Dynamic Testing 7.1 Static Testing Techniques 7.2 Review types: Informal Review, Technical or peer review, Walkthrough and Review Meeting 7.3 Review Reporting & Record keeping, Review guidelines 7.4 Data flow analysis 7.5 Control flow analysis 7.6 Cyclometric Analysis 7.7 Case Study : Cyclometric Complexity	6	15	1,5,6
8	Testing specialized Systems and Applications 8.1 Testing object oriented software 8.2 Testing Web based Applications 8.3 Computer Aided Software testing tools (CAST) (only type & their purpose should be covered)	5	13	3,4

Reference Books:

1. Software Engineering R. Pressmen – TMH,7th Ed.
2. Software Engineering Sommerville, Pearson,8th Ed
3. Introducing Software Testing Louise Tamres
4. Effective Methods for software Testing William Perry, Wiley Pub,3rd Ed.
5. Software Testing in Real World Edward Kit, Pearson Pub.
6. Software Testing Techniques Boris Beizer, dreamTech pub,2nd Ed.
7. Software Testing By Ron Patton, TechMedia Pub.

Websites:

1. www.effectivesoft.com
2. www.sei.cmu.edu
3. www.softwareerisk.com
4. www.iist.org

Semester V				
Sr. No.	Subject Code	Subject Title	Internal	External
2	IT52	Software Project Management	30	70
Objective: To learn process of software project management, cost estimation, use of project management tools, configuration management, user roles and software teams.				

Sr. No	Topic Details	Nos. of Sessions	%	Reference Books
1	Project Management Framework 1.1 Project Management Overview 1.2 Project Organization 1.3 Project Communication and Documentation 1.4 PMLC 1.5 Risk Management <ul style="list-style-type: none"> • Identification of Risks • Risk Analysis • Risk Planning and Monitoring 	8	18	2,3,6,9
2	Software Project Estimation 2.1 Overview of Project Estimation 2.2 Method of Estimations (With Case Studies) COCOMO-I COCOMO-II DELPHI Cost Estimation 2.3 NPV, ROI, Payback models 2.4 Function Point Analysis (Case Study) 2.5 Rayleigh Curve	13	25	2,3,6,7,8,10
3	Project Management Tools 3.1 CPM & PERT – Case study on Network Diagram 3.2 Project Management through Microsoft Project (Ms-Project) <ul style="list-style-type: none"> • Introduction • Gantt Chart 	6	16	6,5,6

4	Change (Configuration) Management 4.1 Change Management Plan 4.2 Change Management Process 4.3 Versioning and Version control 4.4 Defect Management 4.5 Release Management Process 4.6 Configuration Management Tools	6	15	2,3,4,5
5	Software Team Management 5.1 Team structure 5.2 Team Types 5.3 Team Management and Communication 5.4 Group Behavior 5.5 Leadership and Motivation 5.6 Performance Management	4	13	4,9
6	Role of user in Project Management 6.1 User role in Project Management 6.2 User role in PMLC 6.3 User role in System Implementation	3	13	4,9

References:

Sr.No.	Book	Author
1	Software Project Management	Edwin Bennatan
2	Software Engineering	Roger S. Pressman, McGraw-Hill, 7 th Ed.
3	Software Engineering Concepts	Richard Fairly, TMH.
4	Software Project Management	S. A. Kelkar, PHI Pub.
5	Software Engineering	IAN Sommerville, Pearson, 8 th Ed.
6	System Analysis and Design Methods	Whitten, Bently and Dittman, TMH, 7 th Ed.
7	Software Engineering	K.K. Aggrawal
8	Information Technology Project Management	Kathy Schwalbe
9	Software Project Management	Pravin Muley,
10	Operation Research	V K Kapoor, S. Chand And Sons, 8 th Ed.

Semester V				
Sr. No.	Subject Code	Subject Title	Internal	External
3	IT53	Emerging Trends in Information Technology	30	70
Objective: To make students aware with the changes in technologies, applications and systems around us.				

Sr. No	Topic Details	Nos. of Session	%	Reference Books
1	Social Networking: Definition, Overview of Social Networking Sites, Types of Social Networking Sites: General purpose, Niche Advantages of Social Networking Sites, Drawbacks of Social Networking Sites, Features And Need of Social Networking, Security Issues with Social Networking Sites, Examples	8	20	
2	Cloud Computing: Definition, Cloud Architecture, Cloud Storage, Cloud Types: The NIST Model, The Cloud Cube Model, Deployment Models, Service Models Cloud Computing Service Models: 1. Infrastructure as a Service(IaaS) 2.Platform as a Service(PaaS) 3. Software as a Service(SaaS) Benefits of Cloud Computing Disadvantages of Cloud Computing Cloud Security	8	20	2,6
3	Enterprise Content Management: ECM Introduction, Definition, Process, Types of Content, Examples Content Management System(CMS) Overview and examples, Electronic Document Management(EDM) : introduction, Need, Examples	6	20	5
4	e-Learning: Definition, Introduction, Types of e-Learning: 1.Learner-led e-Learning 2.facilitated e-Learning 3.Instructor-led e-Learning 4. Embedded e-Learning Telemonitoring And e-Coaching e-Learning Models: 1. WBT 2.CBT	8	20	1

	3.LMS 4.LCMS 5.Virtual School Systems e-Learning Tools And Technologies: E-Mail,Online Discussion, Chat and Instant Messaging,Voting,Whiteboard, Application Sharing,Conferencing, Online Meeting Tools Standards for e-Learning Case Study			
5	e/m-Commerce: e-Commerce definition, Models of e-Commerce, Electronic Payment Systems: Credit/Debit Cards, Smart Cards, Paypal, e-Billing,e-Micropayments Point Of Sales System(POS): Meaning, Uses m-Commerce: Overview of mobile-Commerce, Attributes of m-Commerce, Drivers of m-Commerce, m-Commerce Security issues, Mobile ATM(ICICI Bank Case Study) Applications of m-Commerce: 1.Mobile Financial Applications, m-wallet 2.Mobile Shopping 3.Advertising And Content provision Case-Study	10	20	3,4

References:

Sr. No.	Book	Author
1.	E-Learning Tools and Technologies	William Hortan, Katherine Hortan,Wiley Pub.
2.	Cloud Computing Bible	Barrie Sosinsky,Wiley India pub
3.	E-Commerce	C.S.V. Murthy,Himalaya Pub.
4.	E-World (Excel Publications)	Arpita Gopal and Chandrani Singh
5.	Electronic Commerce A Managerial Perspective	Efraim Turban, Pearson Pub.
6.	Decision Support Systems and Intelligent Systems	Efraim Turban, Jay Aronson, Pearson,7 th Ed
7.	Cloud computing	Michael Miller, Pearson Pub.
8.	Internet (Use of Search Engines Google & yahoo etc)	

Semester V				
Sr. No.	Subject Code	Subject Title	Internal	External
4	IT54	Advanced Development Technology		70
Objective: To teach student application development technology currently available.				
GUIDELINES FOR SUBJECT: Prefer .NET Framework 4.0 and Visual Studio 2010				

Sr. No	Topic Details	Nos. of Session	%	Reference Books
1	Creating Web Forms Applications 1.1 Creating an ASP.NET Web Application Project 1.2 Responding to Events 1.3 Where Does Processing Occur? 1.4 Namespace Fundamentals 1.5 Maintaining State Information	4	12	
2	Creating a User Interface 2.1 Using Controls 2.2 Validating Data 2.3 Navigating Between Forms 2.4 Navigation between Pages	5	10	
3	Data Binding 3.1 Bind Data to the UI 3.2 Transform and Filter Data	3	8	
4	Storing and Retrieving Data with ADO.NET 4.1 Accessing Data with ADO.NET 4.2 Using Data Sets on Web Forms 4.3 Processing Transactions	7	12	
5	Catching and Correcting Errors 5.1 Using Exception Handling 5.2 Using Error Pages 5.3 Logging Exceptions	4	10	
6	Web Services 6.1 Creating Web Services 6.2 Discovering Web Services 6.3 Instantiating and Invoking Web Services	4	10	
7	Testing Web Applications 7.1 Creating Tests 7.2 Running Tests 7.3 Debugging	3	10	
8	Building and Deploying Web Applications 8.1 Building a Web Application 8.2 Deploying a Web Application 8.3 Creating an Installation Program	4	12	
9	Maintaining Security 9.1 Authenticating and Authorizing Users 9.2 Using Windows Authentication 9.3 Using Forms Authentication	4	8	

10	Use of Ajax on the web forms 10.1 Introduction to Ajax Controls 10.2 Using Ajax controls on web forms	2	8	
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Reference Books :

1. Microsoft ASP.NET 4.0 Step by Step - George Shepherd, Microsoft Press
2. Mastering ASP.Net - BPB Publication
3. ASP.net – The Complete Reference- Tata McGraw Hill
4. ASP.NET Programming – Murach

IT55-Advanced Internet Technology

Semester V				
Sr. No.	Subject Code	Subject Title	Internal	External
5	IT55	Advanced Internet Technology	30	70
Objective: To provide extension to web development skills acquired in 3 rd semester. Struts, Servlets, Java Beans, JSP and PHP are introduced for student to enhance their skills.				

Sr. No	Chapter Details	Nos. of Session	%	Reference Books
1	Internet Basics, PERL & CGI 1.1 HTTP request and response, cookies basics, HTTP /1.1, 1.2 CGI architecture 1.3 Intro PERL with Features, Working with Strings and Arrays, File Handling, Pattern matching & formatting, Creating and using subroutines, 1.4 Using PERL for CGI scripting Note: Apache Http server is used at server side	6	5	1,2,3
2	Apache Tomcat Server 2.1 Obtaining and Installing Apache Tomcat, 2.2 Tomcat Directory Structure - bin, conf, logs, server, work, temp, webapps, 2.3 Web Application Directory Structure, Deploying HTML and JSP Pages, 2.4 Configuring Tomcat - Editing server.xml, 2.5 Deploying Web Applications - Deployment Descriptors, web.xml configuration file 2.6 Tomcat Manager - Deploying and Managing	6	10	9

	<p>Web Application using the Tomcat Manager, Creating a WAR File</p> <p>2.7 Configuring Tomcat to Connect to a Database</p> <p>2.8 Configuring Security on Tomcat, Granting Permissions to Java Apps</p>			
3	<p>Servlets</p> <p>3.1 Introduction</p> <p>3.2 Servlet vs CGI, Servlet API Overview</p> <p>3.3 Servlet Life Cycle</p> <p>3.4 Coding: Writing & running simple servlet</p> <p>3.5 Generic servlet, HttpServlet, ServletConfig, ServletContext</p> <p>3.6 Writing servlet to handle Get & Post methods, reading use request data</p> <p>3.7 Session tracking in servlets,</p> <p>3.8 Servlets & JDBC.</p> <p>3.9 Writing threadsafe servlet</p> <p>Note: Apache Tomcat server is used at server side.</p>	7	25	4,5
4	<p>JSP</p> <p>4.1 Why JSP?</p> <p>4.2 JSP Directives</p> <p>4.3 Writing simple JSP page, Scripting Elements</p> <p>4.4 Default Objects in JSP, JSP Actions</p> <p>4.5 Managing Sessions using JSP</p> <p>4.6 JSP with beans, JSP & Databases</p> <p>4.7 Error Handling in JSP</p> <p>4.8 Introduction to custom tag</p> <p>Note: Apache Tomcat server is used at server side.</p>	7	20	6,7,8
5	<p>Spring-Hibernate Fraemwork</p> <p>5.1 Overview of the Spring Framework</p> <p>5.2 Inversion of Control / Dependency Injection Concepts</p> <p>5.3 Aspect Oriented Programming</p> <p>5.4 Spring MVC Architecture</p> <p>5.5 Bean Factory and Application Context, Attaching and Populating beans, Injecting data through setters and constructors</p> <p>5.6 Listening on events, Publishing events, Spring MVC Layering</p> <p>5.7 DispatcherServlet, Writing a Controller, DAO, Models, Services, Spring Configuration File</p> <p>5.8 Error handling Strategy</p> <p>5.9 JDBC with Spring - Working with the HSQLDB Database</p> <p>5.10 Hibernate with Spring, Benefits of using Spring with Hibernate, Working with Hibernate objects,</p> <p>5.11 Hibernate configuration in Spring</p> <p>5.12 Hibernate Sessions, Hibernate Query</p>	14	25	10, 11

	<p>Language, Executing Queries</p> <p>5.13 DAO Persistence ORM, Hibernate Mapping</p> <p>5.14 Integrating Spring MVC with Hibernate in web application</p>			
6	<p>PHP</p> <p>6.1 Obtaining, Installing and Configuring PHP</p> <p>6.2 Introduction PHP and the Web Server Architecture Model, Overview of PHP Capabilities</p> <p>6.3 CGI vs. Shared Object Model PHP HTML Embedding Tags and Syntax</p> <p>6.4 Simple PHP Script Example</p> <p>6.5 PHP and HTTP Environment Variables</p> <p>6.6 PHP Language Core Variables, Constants and Data Types, and Operators</p> <p>6.7 Decision Making , Flow Control and Loops</p> <p>6.8 Working with Arrays</p> <p>6.9 Working with Strings and functions Outputting Data,</p> <p>6.10 Include and Require Statements</p> <p>6.11 File and Directory Access Operations</p> <p>6.12 Error Handling and Reporting Considerations</p> <p>6.13 Processing HTML Form Input from the User</p> <p>6.14 Creating a Dynamic HTML Form with PHP</p> <p>6.15 Login and Authenticating Users</p> <p>6.16 Using GET, POST, SESSION, and COOKIE variables</p> <p>6.17 Session Management and Variables</p> <p>6.18 Working with Cookies,</p> <p>6.19 Sending Email</p> <p>6.20 Introduction to Object-oriented PHP: Classes and Constructors</p> <p>6.21 Database Operations with PHP Built-in Database Functions, Connecting to a MySQL(or Any Other Database), Creating Database, Dropping Database, Selecting a Database, Building and Sending the Query to Database Engine, Retrieving , Updating and Inserting Data</p> <p>Note: Apache Http server is used at server side</p>	10	15	12, 13, 14

References:

1. Teach Yourself PERL in 21 days Pearson Education.
2. Programming the World Wide Web Robert W. Sebesta
3. Web enabled commercial application development using HTML, DHTML, JavaScript, PERL-CGI Ivan Bayross.

4. Inside Servlets Dustine R. Callway
5. Developing Java Servlets James Goodwill
6. Professional JSP Wrox press
7. Complete reference JSP
8. Java Server Programming Vol-I Wrox press
9. Professional Apache Tomcat – Wrox Press
10. Agile Java Development with Spring, Hibernate and Eclipse by Anil Hemrajani
11. Professional Java Development with the Spring Framework - Wrox Press
12. Beginning PHP5
13. Complete Ref. PHP
14. Beginning PHP, Apache, MySql web development

Reference Sites:

<http://www.springsource.org/india>

<http://www.apache.org>

Semester V				
Sr. No.	Subject Code	Subject Title	Internal	External
6	EC51	Elective - II	70	

Semester V				
Sr. No.	Subject Code	Subject Title	Internal	External
7	IT51P	Mini project using AIT And ADT	50	

Objective : The objective of this mini project is to gear up student for preparation of final project in Semester-VI.

The objective of this mini project is to gear up student for preparation of final project in Semester-VI. Student will select individually Commercial or Technical project based on Application Development Technologies learnt in Semester IV. Each student will have to prepare proper documentation consisting of SRS, Modeling Techniques, Development Strategies and Implementation and Testing Strategies. Student may use any Design Methodologies such as SSAD, OOAD and UML etc. This is a documentation project only. The project work will be presented by student using Power Point Presentation Tool to the panel of internal teachers appointed by the Director of the concerned Institute/College. The Institute may appoint external expert from industry or academics if it feels so. The students will be assessed internally by such panel for this project.

Semester V				
Sr. No.	Subject Code	Subject Title	Internal	External
8	IT51L	Case Tools Lab	50	

Objective : To make student accustom with various automated tools used for Software Design and Development, Testing, Project Management etc.

1. Use of diagramming tools for system analysis
Preparing Data Flow Diagrams & Entity Relationship Diagrams
2. Use of Tools
To design User Interfaces

Report generation
(Using VB /Oracle Developer)

3. MS - project
Its use in project scheduling
4. Use of any Automated Testing Tools
5. Win Runner
 - a) Record Context Sensitive b)Record Analog c)Database check point d)Bit map Check Point e) Synchronization point
6. S/W Configuration Management Tools
 - a) Source Code Control System (SCCS)
 - b) make in UNIX

Note: Student has to check there own developed software through win runner

Semester V				
Sr. No.	Subject Code	Subject Title	Internal	External
9	SS5L	Soft Skill – Interview Skill	30	

Semester V			
Subject Code	Subject Title	Internal	External
EC51L	Elective – II Lab	30	

Semester – VI

Project Evaluation Phases Recommended

Phase	Description	Internal	External	TimeLine
1	SRS Document	50	50	3 rd Week
2	Design document	50	50	7 th Week
3	Executable/User Interface	50	50	12 th Week
4	Test plan and Documentation	50	50	16 th Week
5	Project Viva/Presentation	50	50	20 th Week

General Instruction Regarding Preparation of Project Report For MCA-III - SEM-VI

TYPING

1. The typing shall be standard 12 pts in double spaced using black ink only
2. Margins must be Left 2 inches Right 1.5 inches Top 2 inches Bottom 1.5 inches
3. Paper A4 size Bond Paper

COPIES

Two hard-bound copies
(Black Rexine with Golden Embossing as per format displayed herewith)
One original and one clean Xerox Copy.

FORMAT FOR TITLE PAGE AND FOR EMBOSSING

PROJECT REPORT
ON
NAME OF THE SYSTEM NAME
OF THE COMPANY

BY
NAME OF STUDENT

UNIVERSITY OF PUNE
MASTER IN COMPUTER APPLICATION
INSTITUTE
PUNE-4110..
20012-20015

The Guidelines regarding the documentation and scope of project are mentioned here below:

MCA-III SEM-VI (COMMERCIAL SYSTEM PROJECTS)

Project Report should be submitted in following format for Commercial Application Projects viz. Payroll, Sales, Purchase, Inventory, Book Shop, Examination system etc. Where VB, Access, Oracle, ASP and Java is used.

2 Blank Pages at beginning Title Page

Certificate from Company

Certificate from Guide

Acknowledgement

Index with printed Page Numbers

Chapter 1 : INTRODUCTION

- 1.1 Company Profile
- 1.2 Existing System and Need for System
- 1.3 Scope of Work
- 1.4 Operating Environment - Hardware and Software

Chapter 2 : PROPOSED SYSTEM

- 2.1 Proposed System
- 2.2 Objectives of System
- 2.3 User Requirements

Chapter 3 : ANALYSIS & DESIGN

- 3.1 Data Flow Diagram (DFD)
- 3.2 Functional Decomposition Diagram (FDD)
- 3.3 Entity Relationship Diagram (ERD)
- 3.4 Data Dictionary
- 3.5 Table Design
- 3.6 Code Design
- 3.7 Menu Tree
- 3.8 Menu Screens
- 3.9 Input Screens
- 3.10 Report Formats
- 3.11 Test Procedures and Implementation

Chapter 4 : USER MANUAL

- 4.1 User Manual
- 4.2 Operations Manual / Menu Explanation
- 4.3 Forms and Report Specifications

Drawbacks and Limitations Proposed

Enhancements Conclusion

Bibliography ANNEXURES:

ANNEXURE 1 : INPUT FORMS WITH DATA

Project report should be submitted in following format for project using OOAD, Embedded System, WAP and other technologies and Web Deployed Systems where C, C++, J2EE, .NET, OOAD and JAVA, SDK's, API's are used.

MCA-III SEM VI * TECHNICAL PROJECTS *******

2 Blank Pages at beginning Title

Page

Certificate from Company

Certificate from Guide

Acknowledgement

Index with printed Page Numbers

CHAPTER 1 : INTRODUCTION

- 1.1 Company Profile
- 1.2 Existing System and Need for System
- 1.3 Scope of Work
- 1.4 Operating Environment - Hardware and Software
- 1.5 Detail Description of Technology Used

CHAPTER 2 : PROPOSED SYSTEM

- 2.1 Proposed System
- 2.2 Objectives of System
- 2.3 User Requirements

CHAPTER 3 : ANALYSIS & DESIGN

- 3.1 Object Diagram
- 3.2 Class Diagram
- 3.3 Use Case Diagrams
- 3.4 Module Hierarchy Diagram
- 3.5 Component Diagram
- 3.6 Deployment Diagram (in case of Web Deployment)
- 3.7 Module Specifications
- 3.8 Interface Diagram (in case of WAP and Embedded Systems)
- 3.9 Web Site Map Diagram (in case of Web Site)
- 3.10 User Interface Design (Screens etc.)
- 3.11 Table specifications (in case back end is a database)
- 3.12 Test Procedures and Implementation

CHAPTER 4 : USER MANUAL

- 4.1 User Manual
- 4.2 Operations Manual / Menu Explanation
- 4.3 Program Specifications / Flow Charts

Drawbacks and Limitations

Proposed Enhancements

Conclusion

Bibliography

ANNEXURES:

ANNEXURE 1 : USER INTERFACE SCREENS

ANNEXURE 2 : OUTPUT REPORTS WITH DATA (if any)

ANNEXURE 3 : SAMPLE PROGRAM CODE (which will prove sufficient development is done by the student)

2 Blank Pages at the end.

Recommended Certifications (MCA ++)

End of Semester – 1

- **Business English – University of Cambridge**
<http://www.cambridgeesol.org/index.html>
- **Certified Software Development Associate**
(IEEE computer society certification)
<http://www.computer.org/portal/web/certification/csda>
- **QAI global Institute (Certification by Roger Pressman)**
Certified software Business Analyst
Certified Associate Business Analyst
http://www.qaiglobalservices.com/qaiglobalinstitute/BA_Prep/csba.asp

End of Semester – II

- **Relevant Oracle Certifications**
<http://education.oracle.com>
- **Red-Hat**
Red Hat Certified System Administrator (RHCSA)
<http://www.redhat.com/certification/rhct/>
Red Hat Certified Engineer (RHCE)
<http://www.redhat.com/training/certifications/rhce/>
- **Microsoft certifications (MCSE)**
<http://www.microsoft.com/learning/en/us/certification/cert-overview.aspx>

End of Semester – III

- **CCNA/CCNP Wireless Certification**
http://www.cisco.com/web/learning/le3/le2/le0/le9/learning_certification_type_home.html
- **IBM-Rational Certifications**
http://www-03.ibm.com/certify/certs/rl_index.shtml
- **IBM Business Analytics: Cognos and SPSS**
http://www-03.ibm.com/certify/certs/ba_index.shtml
- **Sun Solaris Certifications**

Sun Certified System Administrator (SCSA) Sun Certified Network Administrator (SCNA)
End of Semester – IV <ul style="list-style-type: none"> • Java Certifications (SCJP/SCSA/SCNA) http://java.sun.com/new2java/articles/certification.html http://www.whizlabs.com/scja/scja.html • .Net Certifications http://www.microsoft.com/learning/en/us/certification/mcsd.aspx • Testing Certifications Certified Associate in Software Testing (CAST) http://softwarecertifications.org/qai_cast.htm (certified Information System Auditor (may not be for the students -) http://www.isaca.org/Certification/CISA-Certified-Information-Systems-Auditor/Pages/default.aspx • PMI Certifications
End of Semester - V <ul style="list-style-type: none"> • The Foundation Certificate in IT Service Management (ITIL V3 Foundation Certification) http://www.itilfoundation.org/
Other useful links for certification exams http://www.certificationguru.co.in/ www.softwarecertifications.org http://www.whizlabs.com/scjp/scjp.html

Reference Websites / Useful e-learning sites for all subjects

1. Free lectures on computer science subjects from : IISc Bangalore, IIT Bombay, IIT Delhi, IIT Kanpur, IIT Kharagpur, IIT Madras, MIT Computer, Portland Community College, Stanford, The University of New South Wales, UC Berkeley ,University of Washington, Harvard
<http://freevideolectures.com/>
2. Other e-learning sites:
<http://nptel.iitm.ac.in>
www.youtube.com

Semester I		
Subject Code	Subject Title	Useful Websites
IT11	Computer Organization	www.intel.com www.intel.in
IT12	C Programming	http://www.lysator.liu.se/c/bwk-tutor.html (Brian W. Kernighan)
IT13	Software Engineering	http://www.research.ibm.com/softeng/
BM11	Principles and Practices of Management And Organizational Behavior	
BM12	Business Process Domains with Cost And Financial Accounting	
MT11	Discrete Mathematics	

Semester II		
Subject Code	Subject Title	Useful Websites
IT21	Object Oriented Programming with C++	www.cplusplus.com
IT22	Database Management System	www.oracle.com
IT23	Operating system Concepts	http://windows.microsoft.com http://www.linux.org/ http://www.redhat.com/
BM21	Management Support System And Business Intelligence	http://www.ibm.com/in/en/
IT24	Enterprise Resource Planning	http://www.sap.com/
BM22	Soft Skills	

Semester III		
Subject Code	Subject Title	Useful Websites
IT31	Web Supporting Technologies	www.w3schools.com www.devguru.com
IT32	Data Communication And Computer Networks	http://www.cisco.com/web/learning/le21/learning_events_home.html
IT33	Data Structure using C++	
IT34	Advanced Database management System	www.oracle.com www.nosqldatabases.com http://www.ibm.com/in/en/
IT35	Object Oriented Analysis And Design	http://www-01.ibm.com/software/in/rational/
MT31	Research Methodology and Tools	http://www-01.ibm.com/software/in/analytics/sps/

Semester IV		
Subject Code	Subject Title	Useful Websites
IT41	Java Programming	http://www.java.com http://www.oracle.com

IT42	Mobile Computing	
IT43	Information Security And Audit	http://www.isaca.org
IT44	Design And Analysis of Algorithm	
MT41	Optimization Technique	

Semester V		
Subject Code	Subject Title	Useful Websites
IT51	Software Testing And Quality Assurance	http://www.learnqtp.com
IT52	Software project Management	http://www.pmi.org.in/
IT53	Emerging Trends in Information Technology	
IT54	Advanced Development Technology	http://www.php.net/ http://www.javascriptkit.com www.w3schools.com http://www.rspa.com http://struts.apache.org/ www.springsource.com/
IT55	Advanced Internet Technology	www.w3schools.com

Internal [30] Marks Breakup	
Unit Test Marks	5
Prelim Marks	5
Assignment	5
Presentations/Case-Study/Group Activity	10
Attendance	5
Total Marks	30

Practical[50] Marks Breakup	
Practical Hands on	40
Viva-voce	5
Assignments	5
Total Marks	50

Mini Project[50] Marks Breakup	
SRS/ Synopsis	10
Diagrams	10
Database	10
Forms	10
Project Report/Viva/Final Presentation	10
Total Marks	50

Savitribai Phule Pune University, Pune

Faculty of Commerce and Management

Master of Computer Applications (MCA)

Syllabus

(2020-2022)

Preamble:

1. The name of the programme shall be Masters of Computer Applications (M.C.A)
2. The revised MCA Curriculum 2020 builds on the implementation of the Choice Based Credit System (CBCS) and Grading System initiated in the AY 2015. The curriculum takes the MCA programme to the next level in terms of implementing Outcome Based Education along with the Choice Based Credit System (CBCS) and Grading System.
3. The Institutes should organize placement programme for M.C.A. students by interacting with Industries and software consultancy.
4. At the end of each semester, appearing for various certifications is possible for each student enabling them to make their resume rich.
5. With the rapidly changing scenario industry and academia should identify possible areas of collaboration and work together. Institute's placement cell should focus on identifying industrial expectations and institutional preparation for meeting industrial needs.

Introduction:

1. Definition: Outcome Based Education:

1.1 Outcome Based Education (OBE) Approach: Outcomes are about performance, and this implies:

- 1.1.1** There must be a performer – the student (learner), not only the teacher
- 1.1.2** There must be something performable (thus demonstrable or assessable) to perform
- 1.1.3** The focus is on the performance, not the activity or task to be performed

1.2 Programme Educational Objectives (PEOs): Programme educational objectives are broad statements that describe the career and professional accomplishments that the programme is preparing graduates to achieve. Programme Educational Objectives are a set of broad future focused learner's performance outcomes that explicitly identify what learners will be able to do with what they have learned, and what they will be like after they leave institution and are living full and productive lives. Thus, PEOs are what the programme is preparing graduates for in their career and professional life (to attain within a few years after graduation).

- 1.3 Programme Outcomes (POs):** Programme Outcomes are a set of narrow statements that describes what students (learners) of the programme are expected to know and be able to perform or attain by the time of graduation.
- 1.4 Course Outcomes (COs):** Course Outcomes are narrower statements that describe what students are expected to know and be able to do at the end of each course. These relate to the skills, knowledge, and behavior that students acquire in their matriculation through the course.
- 1.5 Learning Outcomes:** A learning outcome is what a student CAN DO because of a learning experience. It describes a specific task that he/she can perform at a given level of competence under a certain situation. The three broad types of learning outcomes are: a) Disciplinary knowledge and skills b) Generic skills c) Attitudes and values
- 1.6 Teaching and Learning Activities (TLAs):** The set of pedagogical tools and techniques or the teaching and learning activities that aim to help students to attain the intended learning outcomes and engage them in these learning activities through the teaching process.
- 1.7 Assessment and Evaluation:** Assessment is one or more processes, carried out by the institution, that identify, collect, and prepare data to evaluate the achievement of programme educational objectives and programme outcomes. Evaluation is one or more processes, done by the evaluation team, for interpreting the data and evidence accumulated through assessment practices. Evaluation
- 1.8** determines the extent to which programme educational objectives or programme outcomes are being achieved, and results in decisions and actions to improve the programme.

2. MCA Programme Focus:

The basic objective of the Master of Computer Applications (MCA) is to provide a steady stream of necessary knowledge, skills and foundation for acquiring a wide range of rewarding careers into rapidly expanding world of Information Technology

2.1 Programme Educational Objectives: PEOs are defined by institution. Following are the guidelines for defining PEOs

- 2.1.1** PEOs should be assessable and realistic within the context of the committed resources.
- 2.1.2** The PEOs should be consistent with the mission of the institution.
- 2.1.3** All the stakeholders should participate in the process of framing PEOs.
- 2.1.4** The number of PEOs should be manageable.
- 2.1.5** It should be based on the needs of the stakeholders.
- 2.1.6** It should be achievable by the programme.
- 2.1.7** It should be specific to the programme and not too broad.
- 2.1.8** It should not be too narrow and similar to the POs.

2.2 MCA Programme Outcomes (POs): At the end of the MCA programme the learner will possess the following Program Outcome:

PO1: Apply knowledge of computing fundamentals, computing specialization, mathematics, and domain knowledge appropriate for the computing specialization to the abstraction and conceptualization of computing models from defined problems and requirements.

PO2: Identify, formulate, research literature, and solve *complex* Computing problems reaching substantiated conclusions using fundamental principles of Mathematics, Computing sciences, and relevant domain disciplines.

PO3: Design and evaluate solutions for complex computing problems, and design and evaluate systems, components, or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.

PO4: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions.

PO5: Create, select, adapt and apply appropriate techniques, resources, and modern computing tools to complex computing activities, with an understanding of the limitations.

PO6: Understand and commit to professional ethics and cyber regulations, responsibilities, and norms of professional computing practice.

PO7: Recognize the need, and have the ability, to engage in independent learning for continual development as a Computing professional.

PO8: Demonstrate knowledge and understanding of computing and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO9: Communicate effectively with the computing community, and with society at large, about complex computing activities by being able to comprehend and write effective reports, design documentation, make effective presentations, and give and understand clear instructions.

PO10: Understand and assess societal, environmental, health, safety, legal, and cultural issues within local and global contexts, and the consequential responsibilities relevant to professional computing practice.

PO11: Function effectively as an individual and as a member or leader in diverse teams and in multidisciplinary environments.

PO12: Identify a timely opportunity and using innovation to pursue that opportunity to create value and wealth for the betterment of the individual and society at large.

3. Admission Details:

3.1 Eligibility for Admission: The eligibility criteria for admission for the MCA course will be as decided by the All Indian Council of Technical Education (AICTE), New Delhi and Directorate of Technical Education (DTE), Government of Maharashtra. It will be published on their respective websites time to time.

3.2 Reservation of Seat: The percentage of seat reserved for candidates belonging to backward classes only from Maharashtra State in all the Government Aided, Un-aided Institutions/Colleges and University Departments is as per the norms given by Government of Maharashtra, time to time.

3.3 Selection Basis: The selection would be done as per the guidelines given by the Director of Technical Education, Maharashtra State, time to time.

4. Lecture-Practical/Project-Tutorial (L-P-T)

A course shall have either or all the three components, i.e. a course may have only lecture component, or only practical/project component or a combination of any two/three components

4.1 Lecture(L): Classroom sessions delivered by faculty in an interactive mode. It should be conducted as per the scheme of lectures indicated in respective course.

4.2 Practical/Project(P): Practical / Project Work consisting of Hands-on experience /Field Studies / Case studies that equip students to acquire the much-required skill component. Besides separate Practical/Project course, three courses in each semester include few practical assignments and it will be evaluated under internal evaluation

4.3 Tutorial(T): Session consisting of participatory discussion/ self-study/ desk work/ brief seminar presentations by students and such other novel methods that make a student to absorb and assimilate more effectively the contents delivered in the Lecture sessions

4.4 A Mini project is an assignment that the student needs to complete at the end of every semester in order to strengthen the understanding of fundamentals through effective application of the courses learnt. The details guidelines have been given in the course structure.

4.5 The Project Work to be conducted in the FINAL Semester and evaluated at the end of the semester. The detail guidelines have been in the respective course structure.

4.6 The teaching / learning as well as evaluation are to be interpreted in a broader perspective as follows:

- i) Teaching – Learning Processes: Classroom sessions, Group Exercises, Seminars, Small Group Projects, Self-study, etc.
- ii) Evaluation: Tutorials, Class Tests, Presentations, Field work, Assignments, competency-based Activity, Research papers, Term papers, etc.

The MCA programme is a combination of:

- a. Three-Credit Courses (75 Marks each): 3 Credits each
- b. Two-Credit Courses (50 Marks each): 2 Credits each
- c. One-Credit Courses (25 Marks each) : 1 Credits each

Following are the session details per credit for each of L-P-T model

- 1) Every ONE-hour session per week of Lecture(L) amounts to 1 credit per semester,
- 2) Minimum of TWO hours per week of Practical(P) amounts to 1 credit per semester,
- 3) Minimum of ONE hours per week of Tutorial(T) amounts to 1 credit per semester

5. Open Courses (OC):

Institute has to offer two open courses of 1 credit each per semester to the students from Semester I to Semester III. The motive behind keeping an open course is to make students aware of current/upcoming trends in Information Technology and other domains. Full autonomy is given to the Institute to plan and execute the open courses. It is expected to extend the autonomy to the student

also. Care must be taken to consider credit points and necessary contact hours assigned to it while finalizing any open course for the given semester. In each semester total 2 credits are reserved for open courses.

Suggestive List of OPEN Courses

FOR SEMESTER I		FOR SEMESTER II		FOR SEMESTER III	
1	Data Privacy and Protection	1	Software Agent	1	Speech Recognition
2	Linux system administration	2	Aptitude building -1	2	Sentiment Analysis
3	social media listening	3	Basics of Tableau	3	R Programming
4	Research Methodology	4	Fraud detection	4	Gesture recognition
5	Applied Statistical Methods	5	Ruby Basics	5	Aptitude building-2
6	Digital Marketing	6	LaTeX	6	Digital Image processing
7	G-Suite	7	Big data Analytics	7	Network Security
8	Joomla	8	Game Programming in Unity	8	big data Technologies
9	e-trading	9	Block Chain Technology	9	AWS Fundamentals
10	Scratch and MIT App Inventor Programming	10	Business Intelligence - be specific	10	Edge Computing
11	Random Forest using MS Excel	11	Design Thinking & Problem-solving skills		
12	WordPress	12	Green Computing		
13	MS-OFFICE	13	IoT		
14	Code ignitor				

6. Extra Reading and Certification:

Each Chapter in the course is added with the extra reading part which gives extra pointer to gain In-depth knowledge apart from basic knowledge imparted in the syllabus. Learners should be encouraged to complete this extra reading portion as regular practice. Also, each course (Where ever applicable) includes suggested certification which help learners to enrich themselves as per industry demands and requirements.

7. Evaluation and Assessment:

In total 112 credits represent the workload of a year for MCA program.

Semester	Credit	IE	UE
Semester I	28	350	350
Semester II	28	350	350
Semester III	28	350	350
Semester IV	28	350	350
Total	112	1400	1400
			2800

The final total assessment of the candidate is made in terms of an internal (concurrent) evaluation and an external (university) examination for each course. In total the internal (concurrent) to external (university) marks ratio is maintained 50:50.

In general

- 1) For each course, 25 will be based on evaluation and 50 marks for semester end examination conducted by University, unless otherwise stated.
- 2) The internal evaluation of 25 marks further divided into Written Examination (Assignments/Unit test/written examination etc.), Practicals and Tutorials. The details have been specified in each course.
- 3) There will be one Practical course and one Mini Project course in each semester with 75 marks allotted for internal evaluation and 50 marks allotted for University examination. External assessment will be done by university appointed examiner. During external examination, examiner should ask the programs/practical ONLY from the work book of the students.
- 4) The internal marks will be communicated to the University at the end of each semester, but before the semester-end examinations. These marks will be considered for the declaration of the results.

Guidelines to conduct Mini-Project evaluation for Semester I, Semester II and Semester III of MCA – 2020 pattern

For Internal Evaluation

1. Internal evaluation will be of 75 Marks. It will be distributed as follows

Description	Marks
Project Report	35
Viva	15
Working Demo	25
Total	75

2. Project Report (including Project Diary) should be evaluated only during INTERNAL evaluation. Textual chapters should be given 10 marks while diagrams, test cases/validations, screen designs should be evaluated for 20 marks and 5 Marks should be given for Project Diary. Thus, totaling up to 35 marks.

For External Evaluation

1. Evaluation will be conducted by one Internal (Appointed by Institute) and one External examiner (Appointed by university).
2. External evaluation will be of 50 Marks. It will be distributed as follows

Description	Marks
Viva	15
Working Demo	35
Total	50

For Internal Evaluation and External Evaluation

1. VIVA should be conducted based on project domain and technologies used for developing the project. Every team member's individual contribution to the project may vary. Hence VIVA should be based on individual contribution pertaining to the project.
2. Working Demo is given maximum weightage to make sure that each group submits executable version of their project.
3. Examiners should evaluate efforts and contribution of every individual in the team (in case of group project).
4. Examiner may review code of the project while evaluating its working demo and modules.

Examination: Examinations shall be conducted at the end of the semester i.e. during November and in April/May. However supplementary examinations will also be held in November and April/May.

Concurrent Evaluation: A continuous assessment system in semester system (also known as internal assessment/comprehensive assessment) is spread through the duration of course and is done by the teacher teaching the course. The continuous assessment provides a feedback on teaching learning process. The feedback after being analyzed is passed on to the concerned student for implementation and subsequent improvement. As a part of concurrent evaluation, the learners shall be evaluated on a continuous basis by the Institute to ensure that student learning takes place in a graded manner. Concurrent evaluation components should be designed in such a way that the faculty can monitor the student learning & development and intervene wherever required. The faculty must share the outcome of each concurrent evaluation component with the students, soon after the evaluation, and guide the students for betterment. Individual faculty member shall have the flexibility to design the concurrent evaluation components in a manner so as to give a balanced assessment of student capabilities across Knowledge, Skills & Attitude (KSA) dimensions based on variety of assessment tools.

Suggested components for Concurrent Evaluation (CE) are:

1. Case Study / Situation Analysis – (Group Activity or Individual Activity)
2. Class Test
3. Open Book Test
4. Field Visit / Study tour and report of the same
5. Small Group Project & Internal Viva-Voce
6. Learning Diary
7. Scrap Book
8. Group Discussion
9. Role Play / Story Telling
10. Individual Term Paper / Thematic Presentation
11. Written Home Assignment
12. Industry Analysis – (Group Activity or Individual Activity)
13. Literature Review / Book Review
14. Model Development / Simulation Exercises – (Group Activity or Individual Activity)
15. In-depth Viva
16. Quiz

Institute can decide the type, method and frequency of Concurrent Evaluation for each course and execute accordingly. Detailed record of the Concurrent Evaluation shall be maintained by the Institute. The same shall be made available to the University, on demand.

8. Choice based Credit System (CBCS) and Grading:

The detail document about Choice based Credit System for PG Programme is available on university website. The Grading methodology is also available on university website. University reserves rights to revise CBCS and grading system time to time.

9. Medium of Instruction:

The medium of Instruction will be English.

10. Clarification of Syllabus:

It may be necessary to clarify certain points regarding the course. The BOS should meet to study and clarify any difficulties from the Institutes, as and when required.

11. Revision of Syllabus:

As the computer technology is changing very fast, revision of the syllabus should be considered every 2 years.

12. Attendance:

The student must meet the requirement of 75% attendance per semester per course for grant of the term. The Director shall have the right to withhold the student from appearing for examination of a specific course if the above requirement is not fulfilled. Since the emphasis is on continuous learning and concurrent evaluation, it is expected that the student's study all-round the semester. Therefore, there shall not be any preparatory leave before the University examinations.

13. ATKT Rules:

The ATKT rules mention in CBCS handbook (available on university website) is application to MCA Programme.

14. Maximum Duration for completion of the Programme:

The candidates shall complete the MCA Programme WITHIN 5 YEARS from the date of admission, by earning the requisite credits. The student will be finally declared as failed if she/he does not pass in all credits within a total period of four years. After that, such students will have to seek fresh admission as per the admission rules prevailing at that time.

15. Structure of the Programme and detail syllabus of each course:

Semester I					
Sr. No.	Course Title	Course Code	CP	EXT	INT
1	Java Programming	IT11	3	50	25
2	Data Structure and Algorithms	IT12	3	50	25
3	Object Oriented Software Engineering	IT13	3	50	25
4	Operating System Concepts	IT14	3	50	25
5	Network Technologies	IT15	3	50	25
6	Open Course 1	OC11	1		25
7	Open Course 2	OC12	1		25
* Practicals					
8	Practical	IT11L	5	50	75
9	Mini Project	ITC11	5	50	75
Soft Skills					
10	Soft Skills - I	SS11	1		25
			28	350	350

Semester II					
Sr. No.	Course Title	Course Code	CP	EXT	INT
1	Python Programming	IT21	3	50	25
2	Software Project Management	IT22	3	50	25
3	Optimization Techniques	MT21	3	50	25
4	Advanced Internet Technologies	IT23	3	50	25
5	Advanced DBMS	IT24	3	50	25
6	Open Course 3	OC21	1		25
7	Open Course 4	OC22	1		25
* Practicals					
8	Practical	IT21L	5	50	75
9	Mini Project	ITC21	5	50	75
Soft Skills					
10	Soft Skills - II	SS21	1		25
			28	350	350

Semester III					
Sr. No.	Course Title	Course Code	CP	EXT	INT
1	Mobile Application Development	IT31	3	50	25
2	Data Warehousing and Data Mining	IT32	3	50	25
3	Software Testing and Quality Assurance	IT33	3	50	25
4	Knowledge Representation & Artificial Intelligence - ML, DL	IT34	3	50	25
5	Cloud Computing	IT35	3	50	25
6	Open Course 5	OC31	1		25
7	Open Course 6	OC32	1		25
* Practicals					
8	Practical	IT31L	5	50	75
9	Mini Project	ITC31	5	50	75
Soft Skills					
10	Soft Skills- III	SS31	1		25
			28	350	350

Semester IV					
Sr. No.	Course Title	Course Code	CP	EXT	INT
1	DevOps	IT41	3	50	25
2	PPM and OB	BM41	3	50	25
2	Project	ITC41	22	250	300
			28	350	350

Semester	Credit	IE	UE
Semester I	28	350	350
Semester II	28	350	350
Semester III	28	350	350
Semester IV	28	350	350
Total	112	1400	1400
			2800

Semester I

Course Code: IT-11
Course Name: Java Programming

Credit Scheme			Evaluation Scheme				
Lecture	Practical	Credit	Internal			External	Total
			Written	Practical	Tutorial		
3 Hrs./Week	-	3	25	-	-	50	75

Course Description:

Prerequisite:

Knowledge of programming structures like decision flows, loops, etc.

Course Objectives:

1. To familiarize students with the concepts of OOPs.
2. To enable the students to understand the core principles of the Java Language and use AWT tools to produce well designed, effective applications.
3. Students will be able to develop server-side applications with database handling using servlets, JSP, JDBC

Course Outcomes:

Student will be able to

- CO1 Understand Basic Concepts of OOPs, Java, Inheritance, Package. (Understand)
CO2: Understand Exception handling, arrays and Strings and multi-threading in Java (Understand.)
CO3: Understand collection framework (Understand)
CO4: Develop GUI using Abstract Windows Toolkit (AWT) and event handling (Apply)
CO5: Develop Web application using JSP and Servlet, JDBC (Apply)

Course Structure:

Sr. No.	Topics Details	Weightage in %	No of Sessions
1	1. Introduction - 1.1 About Java 1.2 Flavours of Java 1.3 Java Installation 1.4 Java Program Development Environment Extra reading: docs oracle docs	3	2

2	2. Object Oriented Programming 2.1 Class Fundamentals 2.2 Object & Object reference 2.3 Object Life time & Garbage Collection 2.4 Creating and Operating Objects 2.5 Constructor & initialization code block 2.6 Access Control, Modifiers, Use of Modifiers with Classes & Methods. 2.7 Nested, Inner Class & Anonymous Classes, Abstract Class & Interfaces 2.8 Methods, Defining Methods, Argument Passing Mechanism, Method Overloading, Recursion, Dealing with Static Members, Finalize () Method, Native Method. 2.9 Use of “this “reference, 2.10 Design of Accessors and Mutator Methods 2.11 Cloning Objects, shallow and deep cloning 2.12 Generic Class Types. Extra Reading : OCA Java Programmer :I Exam Kathy Sierra	8	3
3	3. Extending Classes and Inheritance 3.1 Use and Benefits of Inheritance in OOP 3.2 Types of Inheritance in Java 3.3 Inheriting Data members and Methods 3.4 Role of Constructors in inheritance 3.5 Overriding Super Class Methods, Use of “super” 3.6 Polymorphism in inheritance 3.7 Type Compatibility and Conversion 3.8 Implementing interfaces Extra Reading: Understanding and practicing above concept in depth - OCA Java Programmer: I Exam Kathy Sierra	6	3
4	4. Package 4.1 Organizing Classes and Interfaces in Packages 4.2 Package as Access Protection 4.3 Defining Package 4.4 CLASSPATH Setting for Packages 4.5 Making JAR Files for Library Packages 4.6 Import and Static Import 4.7 Naming Convention for Packages. Extra Reading: Oracle Java tutorial	3	2
5	5. Exception Handling	6	3

	<p>5.1 The Idea behind Exception 5.2 Exceptions & Errors 5.3 Types of Exception 5.4 Control Flow in Exceptions 5.5 JVM reaction to Exceptions 5.6 Use of try, catch, finally, throw, throws in Exception Handling 5.7 In-built and User Defined Exceptions Checked and Un-Checked Exceptions</p> <p>Extra Reading: Oracle Java tutorial</p>		
6	<p>6. Array & String: 6.1 Defining an Array 6.2 Initializing & Accessing Array 6.3 Multi –Dimensional Array 6.4 Operation on String, Mutable & Immutable String 6.5 Using Collection Bases Loop for String, Tokenizing a String 6.6 Creating Strings using StringBuffer, String Builder</p> <p>Extra Reading : Java arrays, tokenizer applications– Jenkov Tutorials</p>	4	2
7	<p>7. Thread 7.1 Understanding Threads 7.2 Needs of Multi-Threaded Programming 7.3 Thread Life-Cycle 7.4 Thread Priorities 7.5 Synchronizing Threads 7.6 Inter Communication of Threads 7.7 Critical Factor in Thread –Deadlock</p> <p>Extra Reading : Animation Using Thread</p>	6	3
8	<p>8. A Collection of Useful Classes 8.1 Utility Methods for Arrays 8.2 Observable and Observer Objects, 8.3 Date & Times, 8.4 Using Scanner 8.5 Regular Expression, 8.6 Input/output Operation in Java (java.io Package) 8.7 Streams and the new I/O Capabilities 8.7.1 Understanding Streams 8.7.2 The Classes for Input and Output 8.7.3 The Standard Streams 8.8 Working with File Object 8.8.1 File I/O Basics, 8.8.2 Reading and Writing to Files</p>	6	3

	<p>8.8.3 Buffer and Buffer Management 8.8.4 Read/Write Operations with File Channel 8.9 Serializing Objects</p> <p>Extra Reading : regex – Pattern matching, split examples, reading and writing Character Stream, Byte stream and Objects in java files.</p>		
9.	<p>9. UI Programming 9.1 Designing Graphical User Interfaces in Java, 9.2 Components and Containers, 9.3 Basics of Components 9.4 Using Containers 9.5 Layout Managers, 9.6 AWT Components 9.7 Adding a Menu to Window 9.8 Extending GUI Features Using Swing Components</p> <p>Extra Reading : Using Swing toolkit GUI –oracle java tutorial</p>	12	5
10	<p>10. Event Handling 10.1 Event-Driven Programming in Java 10.2 Event- Handling Process 10.3 Event Handling Mechanism 10.4 The Delegation Model of Event Handling 10.5 Event Classes, Event Sources, Event Listeners 10.6 Adapter Classes as Helper Classes in Event Handling.</p> <p>Extra Reading : Hierarchy of Event Classes, Event Sources, Event Listeners- Oracle java docs</p>	10	4
11	<p>11. The Collection Framework 11.1 Introduction to Java Frameworks 11.2 Collections of Objects 11.3 Collection Types, Sets, Sequence, Map 11.4 Understanding Hashing 11.5 Use of ArrayList & Vector 11.6 Java Utilities (java.util Package)</p> <p>Extra Reading : searching, sorting, insertion, manipulation, deletion of data using Java Collections</p>	10	4
12	<p>12. Database Programming using JDBC 12.1 Introduction to JDBC 12.2 JDBC Drivers & Architecture 12.3 CURD operation Using JDBC 12.4 Connecting to non-conventional databases</p>	10	4

	Extra Reading: List of JDBC Drivers and Jars, Statement, Prepared Statement and Callable Statement.		
13	13. Java Server Technologies 13.1 Servlet Web Application Basics, 13.2 Architecture and challenges of Web Application 13.3 Introduction to servlet 13.4 Introduction to JSP 13.5 Servlet life cycle 13.6 Developing and Deploying Servlets, Exploring Deployment Descriptor (web.xml) 13.7 Handling Request and Response. Extra Reading : Session handling 4 methods, Request Dispatcher ,JSP Tags, JSP Implicit objects, Generic Servlet	16	7
Total:		100	45

Course References:

Recommended Books:

Text Books:

1. Java Complete Reference Schildt Herbert, TMH.
2. Java Fundamentals (SIE), Schildt Herbert, TMH
3. The Complete Reference JSP, Phil Hanna, TMH
4. JDBC, Servlet and JSP, Black Book, Santosh Kumar K. Dremtech publication

Reference Books:

1. Head First Servlets and JSP, 2nd Edition by Bert Bates, Bryan Basham, Kathy Sierra
2. OCJP Oracle Certified Programmer for Java Study Guide by Kathy Sierra and Bert Bates.
3. A Programmer's Guide to Java OCJP Certification (A Comprehensive Primer) by Khalid A. Mughal and Rolf W. Rasmussen.
4. Java Server Programming Java Ee&(J2EE 1.7), Black Book, Wiley publications

Recommended Learning Material:

1. www.javatpoint.com
2. www.oracle.com
3. www.tutorialspoint.com
4. www.geeksforgeeks.org/java

Recommended Certification:

1. OCA- Oracle Certified Associate
2. OCP- Oracle Certified Professional

Course Code: IT-12

Course Name: Data Structure and Algorithms

Credit Scheme			Evaluation Scheme				
Lecture	Practical	Credit	Internal			External	Total
			Written	Practical	Tutorial		
3 Hrs./Week	-	3	25	-	-	50	75

Course Description:

Prerequisite

Loops, Functions, Pointers, Arrays, Memory Allocation, Recursion

Course Objectives:

1. To understand basics data structure and algorithms
2. To solve problems using data structures such as linked lists, stacks, queues, hash tables, trees, heaps and graphs
3. To understand various programming techniques such as brute force, greedy, dynamic programming, divide-conquer and backtracking

Course Outcomes:

Student will be able to

- CO1: demonstrate linear data structures linked list, stack and queue (apply)
- CO2: implement tree, graph, hash table and heap data structures (apply)
- CO3: apply brute force and backtracking techniques (apply)
- CO4: demonstrate greedy and divide-conquer approaches (apply)
- CO5: implement dynamic programming technique (apply)

Course Structure:

Sr. No.	Topics Details	Weightage in %	No of Sessions
1	Linked List 1.1 Singly Linked List 1.2 Doubly Linked List Extra Reading: Circular Linked list and Circular doubly linked list	8	2
2	Stack and Queues 2.1 Linked List implementation of Stack 2.2 Linked List implementation of Queue 2.3 Circular Queue 2.4 Priority Queue	10	4

	Extra Reading: Dqueue, Application of Stack		
3	Tree 3.1 Tree 3.2 Binary Search Tree 3.3 AVL Tree 3.4 Red-Black Tree 3.5 Segment Tree - with min/max/sum range queries examples 3.6 Fenwick Tree (Binary Indexed Tree) Extra Reading: Application of Tree, B* tree	12	5
4	Graph 4.1 Directed and Undirected Graph 4.2 Graph Representations 4.2.1 Adjacency Matrix 4.2.2 Adjacency List 4.3 Graph Traversals 4.3.1 BFS 4.3.2 DFS Extra Reading: Application of Graph in Maps	8	2
5	Hash Table and Heaps 5.1 Hash Table 5.1.1 Hash Function 5.1.2 Hash function approaches 5.1.3 Handling the collisions 5.2 Heap 5.2.1 Min heap and Max heap Extra Reading: Hashing used in File handling	7	2
6	Brute Force 6.1 Linear Search 6.2 Rain Terraces 6.3 Recursive Staircase 6.4 Maximum Subarray 6.5 Travelling Salesman Problem 6.6 Discrete Fourier Transform Extra Reading: Application in Cryptography	10	5
7	Greedy 7.1 Jump Game 7.2 Unbound Knapsack Problem 7.3 Dijkstra Algorithm 7.4 Prim's Algorithm 7.5 Kruskal's Algorithm	10	5

	Extra Reading: Huffman's Tree		
8	Divide and Conquer 8.1 Binary Search 8.2 Tower of Hanoi 8.3 Pascal's Triangle 8.4 Euclidean Algorithm 8.5 Merge Sort 8.6 Quicksort 8.7 Fast Powering Extra Reading: Cooley–Tukey Fast Fourier Transform (FFT) algorithm	10	8
9	Dynamic Programming 9.1 Fibonacci Number 9.2 Unique Paths 9.3 Longest Common Subsequence (LCS) 9.4 Longest Common Substring 9.5 Longest Increasing Subsequence 9.6 Shortest Common Super sequence 9.7 0/1 Knapsack Problem 9.8 Integer Partition 9.9 Regular Expression Matching Extra Reading: Painting Fence Algorithm, Moser-de Bruijn Sequence, Newman-Conway Sequence	15	7
10	Backtracking 10.1 Power Set 10.2 Hamiltonian Cycle 10.3 N-Queens Problem 10.4 Knight's Tour 10.5 Combination Sum Extra Reading: Word Break Problem using Backtracking	10	5
Total:		100	45
Note: Course should be taught independent of any programming language.			

Course References:

Recommended Books:

Text Books

1. Jean Paul Tremblay, Paul G. Sorensens, "AN Introduction to Data Structures with Application", McGraw Hall Publication (INDIAN edition)
2. A. V. Aho and J.D. Ullman, "Design and Analysis of Algorithms", Addison Wesley
3. Thomas H Cormen and Charles E.L Leiserson, "Introduction to Algorithm" PHI

Reference Books

1. Lipschutz Schaum's, "Data Structure", Outline Series, MH
2. D. Samanta, "Classical Data Structure", PHI,
3. Practical Approach to Data Structures by Hanumanthappa.
4. Data Structure and Algorithms in C++ by Joshi Brijendra Kumar
5. Data Structures with C++: Schaum's Outlines by Hubbard JohnBressard,
6. Horowitz/Sahani, Fundamental of Algorithm. PHI, Galgotia.
7. Magnifying Data Structures, Arpita Gopal, PHI Publications

Course Code: IT-13
Course Name: Object Oriented Software Engineering

Credit Scheme			Evaluation Scheme				
Lecture	Practical	Credit	Internal			External	Total
			Written	Practical	Tutorial		
3 Hrs./Week	-	3	10	10	5	50	75

Course Description:

Prerequisite:

Basic System Analysis and Design Concept

Course Objectives:

1. To study basic concepts of software engineering
2. To study phases of SDLC and different process models
3. To learn & understand the Requirement analysis and system Design.
4. To get acquainted with the agile software development methodology

Course Outcomes:

Student will be able to

- CO1: Distinguish different process model for a software development. (Understand)
- CO2: Design software requirements specification solution for a given problem definitions of a software system. (Analyze)
- CO3: Apply software engineering analysis/design knowledge to suggest solutions for simulated problems (Analyze)
- CO4: Design user interface layout for different types of applications (Apply)
- CO5: Recognize and describe current trends in software engineering (Understand)

Course Structure:

Sr. No.	Topics Details	Weightage in %	No of Sessions
1	1. Introduction to development approach SSAD and OOAD 1.1. Overview of Software Development with SSAD 1.1.1. Basic System Development Life Cycle with different users and their role in SDLC. 1.1.2. Different Approaches and Models for System Development. 1.1.2.1. Waterfall Model 1.1.2.2. Spiral Model 1.1.2.3. Prototyping Model 1.1.2.4. RAD	10	4

	<p>1.1.2.5. Rational Unified Process</p> <p><u>Extra Reading:</u> Object oriented concepts</p>		
	<p>2. Requirement Engineering</p> <p>2.1. Types of Requirements – Functional and Non-functional</p> <p>2.2. Four Phases of Requirement Engineering</p> <p>2.3. Software requirement Specification (SRS)</p> <p>2.3.1. Structure and contents of SRS</p> <p>2.3.2. IEEE standard format for SRS</p> <p>Note: Case studies based on SRS</p> <p><u>Extra Reading:</u> Fact finding techniques, Feasibility study and reports</p>	20	9
	<p>3. Use-case Driven Object-Oriented Analysis</p> <p>3.1. Introduction to oops concepts</p> <p>3.1.1. Class and object</p> <p>3.1.2. Abstraction and encapsulation</p> <p>3.1.3. Method and messages</p> <p>3.1.4. Interface, Inheritance and polymorphism</p> <p>3.1.5. Structural Diagram - Class Diagram and Object diagram</p> <p>3.1.6. Associations and links</p> <p>3.1.7. Aggregation, Composition and containment</p> <p>3.1.8. Inheritance, Sub Types and IS-A hierarchy</p> <p>3.2. Behavioral Diagram</p> <p>3.2.1. Use case Diagram</p> <p>3.2.1.1. Identify Actors</p> <p>3.2.1.2. Identify Use cases: describing how the user will use the system</p> <p>3.2.1.3. Develop use-case Model</p> <p>3.2.1.4. Description of Use case Diagram.</p> <p>3.2.2. Activity Diagram</p> <p>3.2.3. Sequence diagram</p> <p>3.2.4. Collaboration Diagram.</p> <p>3.2.5. State Transition Diagram</p> <p>Note: Case studies should be covered on the above topic</p> <p>Extra Readings: UML diagram drawing tools such as draw.io, Star UML, etc. , Documentation associated with UML diagrams</p>	40	20

	4. User Interface Design 4.1. Elements of good design 4.2. Eight golden rules for design 4.3. Features of modern GUI, Menus, Scroll bars, windows, buttons, icons, panels, error messages etc. Note: Case studies should be covered on the above topic Extra Readings: UI/UX software, Interactive UI design	10	4
	5. Current trends in Software Engineering 5.1. Introduction to Web Engineering 5.2. Agile Process 5.2.1. Agile Process Models 5.2.1.1. Extreme Programming (XP) 5.2.1.2. Adaptive Software Development (ASD) 5.2.1.3. Dynamic Systems Development Method (DSDM) 5.2.1.4. Scrum 5.2.1.5. Crystal 5.2.1.6. Feature Driven Development (FDD) Extra Readings: Comparative analysis of traditional process models and agile, Agile methodology in testing	20	8
Total:		100	45

List of Practical (if any)

Case studies will be given to the student as a part of tutorial. The same diagram should be drawn using UML diagram drawing tool as practical.

Course References:

Recommended Books:

Text Books:

1. Software Engineering by Roger Pressman (6th edition)
2. Object-Oriented Software Engineering: A Use Case Driven Approach by Ivan Jacobson
3. Software Engineering by Sommerville, Pearson, 8th Ed
4. Analysis & Design of Information System James Senn, TMH, 2nd Ed
5. Object Oriented System Development - Ali Bahrami McGraw-Hill International Edition
6. Object-Oriented Software Engineering - Ivar Jacobson Pearson Education INC
7. Agile Software Engineering with visual studio by Sam Guckenheimer, Neno Loje.
8. UML Instant – Thomas A Pendar – Wiley Publication

9. UML in Nutshell, O'reilly Pub

Reference Books:

1. Software Requirements by Karl Wiegers
2. Object Oriented Modeling and Design with UML by James Rumbaugh, Michael Blaha
3. Object Oriented Systems and Techniques with UML & Java by Udit Agarwal
4. Software Engineering by Chandramouli Subramanian, Saikat Dutt
5. Object Oriented Systems Analysis and Design using UML by Simon Bennett
6. UML 2 Bible by Tom Pender
7. The Unified Modeling Language user guide by Grady Booch, James Rumbaugh, Ivar Jacobson

Recommended Learning Material:

5. <https://www.mooc-list.com/course/object-oriented-design-coursera>
6. <https://nptel.ac.in/courses/106101061/>

Course Code: IT-14
Course Name: Operating Systems Concepts

Credit Scheme			Evaluation Scheme				
Lecture	Practical	Credit	Internal			External	Total
			Written	Practical	Tutorial		
3 Hrs./Week	-	3	15	10	-	50	75

Course Description:

Prerequisite:

Basics of Operating System

Course Objectives:

1. To learn the fundamentals of Operating Systems and handle processes and threads and their communication
2. To learn the mechanisms involved in memory management in contemporary OS
3. To know the functionality of Multiprocessor OS and Mobile OS.
4. To gain knowledge on distributed operating system concepts.
5. To learn about Basics of Linux.
6. To learn programmatically to implement Linux OS mechanisms.

Course Outcomes:

Student will be able to

- CO1: Understand structure of OS, process management and synchronization. (Understand)
 CO2: Understand multicore and multiprocessing OS. (Understand)
 CO3: explain Realtime and embedded OS (Understand)
 CO4: understand Windows and Linux OS fundamentals and administration. (Understand)
 CO5: solve shell scripting problems (Apply)

Course Structure:

Serial No.	Topics Details	Weightage in %	No of Sessions
1	1. Overview 1.1. Overview of operating systems 1.2 Functionalities and Characteristics of OS 1.3 Hardware concepts related to OS 1.4 CPU states 1.5 I/O channels 1.6 Memory Management 1.6.1 Memory Management Techniques 1.6.2 Contiguous & Non-Contiguous allocation 1.6.3 Logical & Physical Memory –	15	7

	<p>Conversion of Logical to Physical address</p> <p>1.7 Paging</p> <p> 1.7.1 Demand Paging</p> <p> 1.7.2 Page Replacement Concept</p> <p>1.8 Segmentation - Segment with paging</p> <p>1.9 Virtual Memory Concept</p> <p>1.10 Thrashing</p> <p>Extra Reading: Type of OS, Batch OS, Time Sharing OS, Network OS, Multiprogramming OS, Multiprocessing OS, Evolution of Operating System., Computer System Organization Operating System Structure and Operations- System Calls, System Programs, OS Generation and System Boot</p>		
2	<p>2. Process Management and Synchronization</p> <p> 2.1 PCB</p> <p> 2.2 Job and processor scheduling</p> <p> 2.3 Scheduling Concept</p> <p> 2.4 Process hierarchies</p> <p> 2.5 Problems of concurrent processes</p> <p> 2.6 Critical sections</p> <p> 2.7 Mutual exclusion</p> <p> 2.8 Synchronization</p> <p> 2.9 Deadlock</p> <p> 2.10 Device and File Management</p> <p> 2.10.1 Overview</p> <p> 2.10.2 Techniques</p> <p> 2.10.3 File Systems</p> <p>Extra Reading: Threads- Overview, Multithreading models, Threading issues, Process Synchronization – The critical-section problem, Synchronization hardware, Mutex locks, Semaphores, Classic problems of synchronization, Critical regions, Monitors; Deadlock – System model, Deadlock characterization, Methods for handling deadlocks, Deadlock prevention, Deadlock avoidance, Deadlock detection, Recovery from deadlock., Banker’s Algorithms</p>	17	8
3	<p>3. Multiprocessor and Multicore Operating Systems</p> <p> 3.1 Introduction</p> <p> 3.1.1 Advantages and Disadvantages</p> <p> 3.1.2 Multicore System Vs. Multiprocessor System.</p> <p> 3.2 Types of Multiprocessors</p> <p> 3.2.1 Symmetric Multiprocessors</p> <p> 3.2.2 Asymmetric Multiprocessors</p> <p> 3.3 Basic Multicore Concepts: Memory Sharing Styles</p>	17	8

	<p>3.3.1 Uniform Memory Access (UMA) 3.3.2 Non-Uniform Memory Access (NUMA) 3.3.3 No Remote Memory Access (NORMA)</p> <p>3.4 Cache Coherence, Inter-Process (and inter-core) Communication: 3.4.1 Shared Memory 3.4.2 Message Passing</p> <p>3.5 Mobile Operating Systems 3.5.1 Concept Need and Features 3.5.2 Types of Mobile OS 3.5.3 Overview of Android OS 3.5.4 Applications of Mobile OS</p> <p>3.6 Distributed Operating Systems 3.6.1 Concept Need and Features 3.6.2 Examples of Distributed OS with brief introduction 3.6.3 Applications of Distributed OS</p> <p>Extra Reading: Virtual Machine, Cache Memory and Catching Concept, Multi-Processor and Distributed Operating System: – Introduction, – Architecture, – Organization, – Resource sharing, – Load Balancing, – Availability and Fault Tolerance, – Design and Development Challenges, – Inter-process Communication</p>		
4	<p>4. Real Time OS</p> <p>4.1 Introduction and use of RTOS 4.1.2 Components of RTOS 4.1.3 Types of RTOS 4.1.4 Features of RTOS 4.1.5 Factors for selecting in RTOS 4.1.6 Applications of RTOS 4.1.7 Disadvantages of RTOS</p> <p>4.2 Embedded OS 4.2.1 Concept Need and Features of embedded OS 4.2.2 Examples of embedded OS with brief introduction 4.2.3 Applications of embedded OS</p> <p>Extra Reading: Real Time and Embedded Operating Systems: – Introduction, – Hardware Elements, – Structure Interrupt Driven, Interrupt Driven, Nanokernel, Nanokernel, Microkernel and Microkernel and Monolithic kernel-based models. Monolithic kernel-based models. – Scheduling – Periodic, Periodic, Aperiodic and Aperiodic and Sporadic Tasks, Sporadic</p>	10	4

	Tasks, – Introduction to Energy Aware CPU Scheduling.		
5	<p>5.Windows OS and Windows Server Architecture</p> <p>5.1 Windows OS</p> <p>5.1.1 Introduction</p> <p>5.1.2 Windows OS Installation</p> <p>5.1.3 Process Management</p> <p>5.1.4 Control Panel Overview</p> <p>5.1.5 Users, Security and Privacy Settings</p> <p>5.1.6 Identify Accessibility Settings</p> <p>5.1.7 Service Management</p> <p>5.1.8 Syncing Devices and File Sharing</p> <p>5.1.9 Windows Utilities (Accessories, Disk Management, Resource Monitor, Backup and Recovery), Basic Troubleshooting (Networking, Security, Device Driver).</p> <p>5.2 Introduction to Ubuntu</p> <p>5.2.1 Introduction</p> <p>5.2.2 Overview of Kernel</p> <p>5.2.3 Installation of Ubuntu</p> <p>5.2.4 File system</p> <p>5.2.5 Basic Commands of Linux</p> <p>5.2.6 Managing Processes in Linux</p> <p>5.2.7 Installing and deleting software packages</p> <p>5.2.8 User Management</p> <p>5.2.9 File and Device Management</p> <p>5.2.10 Backup and recovery</p> <p>5.2.11 Introduction to Graphical Environment (GNOME), Ubuntu Utilities (VirtualBox, Evolution, Gimp, Bleach Bit, Unity Tweak Tool etc.), SAMBA Overview</p> <p>Extra Reading: Deploying and Managing Windows Server 2012 and 2016, Introduction to Active Directory Domain Services, Managing Active Directory Domain Services Objects, Automating Active Directory Domain Services Administration, Implementing IPv4, Implementing DHCP, Implementing DNS, Implementing Local Storage, Implementing File and Print Services, Implementing Group Policy.</p>	25	12
6	<p>6. Linux Shell Scripting</p> <p>6.1 Introduction</p> <p>6.2 Variables</p> <p>6.3 Flow Controls</p> <p>6.4 Loops</p> <p>6.5 Functions</p>	16	6

	6.6 Lists 6.7 Manipulating Strings 6.8 Reading and Writing Files 6.9 Positional Parameters 6.10 Case statement 6.11 Real time scripts for different system administration activities Extra Reading: Shell Script Programming Concepts, Sequential Flow and Components of Shell Scripting, Decision Structures, Decision-Structure Theory, Statements & Operators, Looping Structures, Loop Theory & Statements, Functions and Arrays, Functions Parts/Libraries & Arrays, Advanced Shell Programming, File Access, Sorts & Techniques, Advanced Tech & Tools , Awk & Sed ,Script Design and Management Issues		
	Total:	100	45

List of Practicals (if any)

Minimum 5 Practicals to be conducted based on Shell Scripting

Course References:

Recommended Books:

Text Books:

1. "Operating System Concepts", Abraham Silberschatz; Peter Baer Galvin; Greg Gagne, Seventh Edition, John Wiley & Sons, 2004.
2. "Advanced Concepts in Operating Systems– Distributed, Database, and Multiprocessor Operating Systems", Mukesh Singhal and Niranjana G. Shivaratri, Tata McGraw-Hill, 2001.
3. "Understanding the Linux kernel", 3rd edition, Daniel P Bovet and Marco Cesati, O'Reilly, 2005.
4. "Real-Time Systems: Theory and Practice", Rajib Mall, Pearson Education India, 2006.
5. "iPhone iOS 4 Development Essentials – Xcode", Neil Smyth, Fourth Edition, Payload media, 2011.
7. "Microsoft Windows Server Administration Essentials", Tom Carpenter
8. "The Official Ubuntu Book" Eighth Edition, Matthew Helmke, Elizabeth K. Joseph, José Antonio, Rey Philip Ballew, With Benjamin Mako Hill

Reference Books:

1. " Operating Systems: Internals and Design Principles" by William Stallings.
2. " Operating Systems: A Concept-Based Approach" by D M Dhamdhere.
3. System Concepts, 9th Edition, John Wiley & Sons, Inc. by Avi Silberschatz, Peter Baer Galvin, Greg Gagne,
4. D.M Dhamdhere: Operating systems - A concept-based Approach, 3rd Edition, Tata McGraw- Hill, 2012.
5. Operating Systems: Internals and Design Principles, 8th edition Pearson Education Limited, 2014 by William Stallings.
6. Modern Operating system by Andrew Tenenbaum.
7. Distributed Operating System by Andrew Tanenbaum
8. P.C.P. Bhatt: Introduction to Operating Systems Concepts and Practice, 3rd Edition, PHI, 2010.
9. Harvey M Deital: Operating systems, 3rd Edition, Pearson Education, 2011

Recommended Certification:

Windows Server certifications

1. Entry level: IT Infrastructure: Microsoft Technology Associate (MTA) certification.
2. Associate level: Windows Server 2016: Microsoft Certified Solutions Associate (MCSA): Windows Server 2016 certification.
3. Associate level: Windows Server 2012: Microsoft Certified Solutions Associate (MCSA): Windows Server 2012 certification.
4. Expert level: Server infrastructure: Microsoft Certified Solutions Expert (MCSE): Server Infrastructure certification.

Linux Certifications

1. LINUX+ CompTIA
2. RHCE- RED HAT CERTIFIED ENGINEER
3. GCUX: GIAC CERTIFIED UNIX SECURITY ADMINISTRATOR
4. ORACLE LINUX OCA & OCP
5. LPI (LINUX PROFESSIONAL INSTITUTE) CERTIFICATIONS

LPIC- 1: Linux Administrator

LPIC- 2: Linux Engineer

LPIC- 3: Linux Enterprise Professional Certification

Course Code: IT-15

Course Name: Network Technologies

Credit Scheme			Evaluation Scheme				
Lecture	Practical	Credit	Internal			External	Total
			Written	Practical	Tutorial		
3 Hrs./Week	-	3	10	10	5	50	75

Course Description:

Prerequisite:

Students should have fundamental knowledge of computer network.

Course Objectives:

1. To understand various computer networks and technologies behind networks
2. To study TCP/IP protocol suite, IP addressing schemes and link layer communication
3. To study routing concept along with Routing protocols
4. To study application layer protocols
5. To understand basics of cryptography and socket programming

Course Outcomes:

Student will be able to

CO1: Understand the basic concepts of Computer Network, and principle of layering (Understand)

CO2: Apply the error detection and correction techniques used in data transmission (Apply)

CO3: Apply IP addressing schemes and sub netting (Apply)

CO4: Understand the concept of routing protocols, Application layer protocols and Network Security (Understand)

CO5: Apply the socket programming basics to create a simple chat application (Apply)

Course Structure:

Sr. No.	Topics Details	Weightage in %	No of Sessions
1	1. Introduction to Data Communication and Computer Networks 1.1. Internet basics and network components. [Transmission Media-Guided, Unguided, Network Devices] 1.2. Various types of Networks (only overview) 1.2.1. Connection Oriented N/Ws Vs Connectionless N/Ws, 1.2.2. Ethernet- Ethernet standards ZigBee, WiFi, Access Technique -CSMA-CD, Negotiation technique Overview	6	3

	<p>1.2.3. Wireless Network 1.3 Unified Communication –VOIP</p> <p>Extra Reading: Switching Techniques, CSMA/CA, CSMA/CD, Unified Communication</p>		
2	<p>2. Principle of Layering concept</p> <p>2.1 Need for layering 2.2 ISO-OSI 7 Layer Model 2.3 TCP/IP model 2.4 OSI Model vs TCP/IP mode</p> <p>Extra Reading: Data Encapsulation, PDU Formation, network devices</p>	12	8
3	<p>3. Link Layer Communication</p> <p>3.1 Error detection and correction techniques 3.2 Framing and its types 3.3 Flow and error control 3.4 HDLC protocol 3.5 P2P Protocol</p> <p>Note: Examples based on 3.1 to be covered</p> <p>Extra Readings: DLL protocol examples, IEEE 802.2 MAC protocol</p>	25	10
4	<p>4. IP Addressing</p> <p>4.1 Internet Protocol and IPv4 Packet format, 4.2 Addressing, Physical Addresses, Logical Addresses Port Addresses, Specific Addresses 4.3 IP Address- Network Part and Host Part 4.4 Network Masks, Network Addresses and, Broadcast Addresses, Loop Back Address 4.5 Address Classes 4.6 TCP and UDP Connections 4.7 TCP Performance in wireless network 4.8 Overview of IPv6 4.9 IP Routing - Types of routing protocol, Border Gateway Protocol (BGP), Routing Information Protocol (RIP), Open Shortest Path First (OSPF), Routing Table concept</p> <p>Notes: Examples based on IP addressing and sub netting to be covered</p> <p><u>Extra Reading</u>: Network Monitoring Tools –Open NMS, Putty, Wireshark, Nagios core, Cacti</p>	25	10

5	5. Application Layer Protocols 5.1 DHCP – DHCP Client, DHCP server, DHCP scope 5.2 DNS – Resolution process, Resource Records, DNS protocol structure 5.3 HTTP – WWW architecture, HTTP: Request and Response Message 5.4 Email protocols – SMTP, POP3, IMAP4 & MIME 5.5 FTP, Telnet Extra Reading: Practical on FTP, Telnet, DNS, Putty	15	6
6	6. Network Security 6.1 Active and Passive attacks 6.2 Cryptography (Symmetric and Asymmetric) 6.3 Firewall Extra Reading: Examples on symmetric and asymmetric algorithms	5	2
7	7. Socket Programming 7.1 Introduction 7.2 Berkeley Sockets 7.3 Specifying A Protocol Interface 7.4 The Socket Abstraction 7.4.1 System Data Structures for Sockets 7.5 Specifying an Endpoint Address 7.6 A Generic Address Structure 7.7 Major System Calls Used with Sockets 7.8 Utility Routines for Integer Conversion 7.9 Using Socket Calls in A Program (The socket can be created in any language) Extra Reading: Client-Server Architecture and its implementation using Socket programming	12	6
Total:		100	45

List of Practical assignments (Socket Programming):

1. Write the client and server programs for establishing termination of connection between client and server using TCP. Assume the server can handle only one client.
2. Write the client and server programs for simple data (hello) transfer between client and server using UDP. Client will send hello server message to the server program. In its reply the server will send hello client message. The server and client programs should reside on different computers in a network.
3. Write the client and server programs for connectionless communication between two different computers in the same TCP/IP network. The server process receives a byte from the client process should and send back an acknowledgement to the client process.
4. Write program for implementing the sliding window protocol of window size 5.
5. Write the client and server program for implementing the broadcasting in the local network.

Course References:

Recommended Books:

Text Books:

1. Network Essential Notes GSW MCSE Study Notes
2. Internetworking Technology Handbook CISCO System
3. Data and Computer Communication 8th Edition – William Stallings
4. Official Certification guide CCNA 200-301
5. TCP/IP Sockets in JAVA, Practical Guide for Programmers, Kenneth L Calvert, Michael J Donahoo

Reference Books:

1. Data Communication and Networking Behroz A.Forouzan, TMH, 4th Edition
2. Computer Networks and Internets with Internet Applications Douglas Comer
3. Cryptography and Network Security Atul Kahate, TMH 2nd Edition
4. Internetworking With TCP/IP Vol III: Client-Server Programming and Applications BSD Socket Version Second Edition

Recommended Learning Material:

1. <https://docs.oracle.com/javase/tutorial/networkingindex.html>
2. <https://docs.oracle.com/javase/tutorial/networking/overview/networking.html>

Recommended Certifications:

1. CISCO Networking Basics Specialization (Coursera) -
2. Network Protocols and Architecture (Coursera)
3. Data Communications and Network Services (Coursera)
4. Computer Networking-Digital Network Security (www.alison.com/course)
5. CCNA (200-301)
6. CCNP Enterprise (300-401 ENCOR)
7. CCNP Security (300-700 SCOR +concentration exam)
8. CCIE Enterprise Infrastructure(300-401 ENCOR + Infrastructure lab v1.0)
9. CCIE Enterprise Wireless CCIE +(300-401 ENCOR +wireless lab v1.0)
10. Microsoft Networking Fundamentals (98-366)
11. Microsoft Security Fundamentals (98-367)

Course Code: IT-11L
Course Name: Practicals

Credit Scheme			Evaluation Scheme				
Lecture	Practical	Credit	Internal			External	Total
			Written	Practical	Tutorial		
-	10 Hrs./Week	5	-	75	-	50	125

Course Description:

This Practical course contains 3 sections. –

1. JavaScript Syllabus
2. **GITHUB Syllabus (Not for Evaluation)**
3. List of Practicals – Java Programming
4. List of Practicals – Data Structure and Algorithm

Course Outcomes:

Student will be able to

- CO1: Demonstrate Collection framework (Apply)
- CO2: Develop GUI using awt and swing (Apply)
- CO3: Develop Web application using JSP and Servlet, JDBC (Apply)
- CO4: Apply Data Structure to solve problems using JavaScript (Apply)

Course Structure:

Syllabus for JavaScript

Sr. No.	Topics Details
1	Introduction to JavaScript - History, Features, Application of JavaScript, JavaScript Basics –Data Types, Variables, Identifiers, Constants, Comments, Operators in JavaScript
2	Control and looping structure
3	Array – Concept, Types and Methods
4	Java Script Objects – Object ,Date ,String, Array , Math, Number, Boolean
5	Event handling-Mouse, Keyboard, Form, Window
6	JavaScript BOM –Browser object, Window, Location, Navigator, History Object
7	JavaScript DOM –Document Object and its Methods
8	Form Validations in JavaScript
9	Exception Handling in JavaScript using JavaScript

Syllabus for GIT/GITHUB

Sr. No.	Topics Details
1	Introduction to versioning systems
2	creating repositories [local & cloud based]
3	git commands
4	branching & merging
5	conflict resolution (3-way merge)
6	rebasing
7	version control [tagging]

Session on GIT/GITHUB is not for evaluation. It may be conducted by using Demonstration method. The objective of these sessions is *“Students must able to submit their mini-project on GITHUB as project repositories”*

List of Practicals – Java Programing

1. Installation of jdk enviornment & following utilities. What is javac , javap and javadoc.
2. Design an application by using array.
3. Implementation of package, Interface and abstract class
4. Design application using String, StringBuilder, StringTokenizer
5. Test any five of standard exception and user Defined Custom Exceptions in java
6. Threads creation and design applications by using Extending the Thread class/ Implementing the Runnable Interface. Application of multithreading in java.
7. Design java application using Collection in java such as Array List, Link List
8. Design GUI based java application using AWT, Swing with Event Handling.
9. Design a and implement JDBC applications.
10. Design and implement servlet applications.
11. Design and implement JSP applications

List of Practicals – Data Structure and Algorithm Practicals

Following practical must be implemented using JavaScript

1. Demonstrate singly and doubly linked list
2. STACK implementation using Array with PUSH, POP operations
3. Reverse a string using stack
4. Check for balanced parentheses by using Stacks
5. Implement Stack using Linked List
6. Demonstration of Linear Queue, Circular Queue, Priority Queue
7. Reverse stack using queue
8. Practical based on binary search tree implementation with its operations
9. Graph implementation and graph traversals
10. Implementation of Hashing
11. Practical based on Brute Force technique
12. Practical based on Greedy Algorithm-Prim’s/Kruskal’s algorithm

13. Practical based on Divide and Conquer Technique-Binary Search, Tower of Hanoi
14. Implementation of Dynamic Programming- LCS, Regular Expression Matching
15. Practical based on backtracking- N Queen's problems

Course Code: ITC11
Course Name: Mini Project

Credit Scheme			Evaluation Scheme				
Lecture	Practical	Credit	Internal			External	Total
			Written	Practical	Tutorial		
-	10 Hrs./Week	5	-	75	-	50	125

Course Description:

A mini project is an assignment that the student needs to complete at the end of every semester to strengthen the understanding of fundamentals through effective application of the subjects learnt.

Course Outcomes:

Student will be able to

CO1: Create working project using tools and techniques learnt in this semester (Create)

Course Structure:

Guidelines for Mini Project

1. Students are expected to undertake one mini project starting from first semester till third semester.
2. The student may take up the mini project in first semester based on the courses learnt in that semester and for every next semester the mini project may be based on the courses learnt in the current semester along with all the subjects learnt in earlier semesters.
3. The student may take up the project individually or in group. However, if project is done in group, each student must be given a responsibility for distinct modules.
4. Selected project/module must have relevant scope as per the marks assigned and must be carried out in the Institute.
5. Internal guide should monitor and evaluate the progress of the project on individual basis through handwritten workbook (Project Diary) maintained by students containing various project milestones with learnings and remarks from internal guide for concurrent evaluation.
6. The Project Synopsis should contain an Introduction to Project clearly stating the project scope in detail justifying enough scope for 125 marks. The project work will carry 75 marks for internal assessment and 50 marks for external assessment.
7. Students are expected to show working demo of the project during final evaluation.
8. **Students are expected to upload mini-project on GITHUB as project repository of the institution.**
9. Students are expected to submit the soft copy of mini project report as a part of final submission.

10. The project will be assessed internally as well as externally by the examiners appointed by University. University may appoint Industry Experts as an external examiner

Semester II

Course Code: IT-21

Course Name: Python Programming

Credit Scheme			Evaluation Scheme				
Lecture	Practical	Credit	Internal			External	Total
			Written	Practical	Tutorial		
3 Hrs./Week	-	3	25	-	-	50	75

Course Description:

Prerequisite:

Object oriented Concepts.

Course Objectives:

1. To understand and use the basic of python.
2. To understand advance concepts of python and able to apply it for solving the complex problems.
3. To understand the reading and writing data through file handling.
4. To understand basic database concepts in python.
5. To develop the critical thinking and analytical approach by using python libraries.

Course Outcomes:

Student will be able to

- CO1: Understand Demonstrate the concepts of python and modular programming.
(Understand)
- CO2: Apply the concepts of concurrency control in python (Apply)
- CO3: Solve the real-life problems using object-oriented concepts and python libraries (Apply)
- CO4: Demonstrate the concept of IO, Exception Handling, database (Apply)
- CO5: Analyze the given dataset and apply the data analysis concepts and data visualization. (Analyze)

Course Structure:

Unit No.	Topics Details	Weightage in %	No of Sessions
1	1. Introduction & Components of Python 1.1. Understanding Python 1.2. Role of Python in AI and Data science 1.3. Installation and Working with Python 1.4. The default graphical development environment for Python - IDLE 1.5. Types and Operation 1.6. Python Object Types-Number, Strings, Lists, Dictionaries, Tuples, Files, User Defined Classes	15	7

	<p>1.7. Understanding python blocks 1.8. Python Program Flow Control 1.9. Conditional blocks using if, else and elif 1.10. Simple for loops in python 1.11. For loop using ranges, string, list and dictionaries 1.12. Use of while loops in python 1.13. Loop manipulation using pass, continue, break and else 1.14. Programming using Python conditional and loops block</p> <p>Extra Reading: Python installation with windows, Linux and MAC OS, creating virtual environment, configuring python on EC2 instance, understanding python IDE –[VSCode, PyCharm, Spyder], Installing Anaconda and setting up environment for python</p>		
2	<p>2. Python Functions, Modules & Packages 2.1. Function Basics-Scope, nested function, non-local statements 2.2. built-in functions 2.3. Arguments Passing, Anonymous Function: lambda 2.4. Decorators and Generators 2.5. Module basic usage, namespaces, reloading modules. – math, random, datetime, etc. 2.6. Package: import basics 2.7. Python namespace packages 2.8. user defined modules and packages</p> <p>Extra Readings: GUI framework in python</p>	15	7
3	<p>3. Python Object Oriented Programming 3.1. Concept of class, object and instances, method call 3.2. Constructor, class attributes and destructors 3.3. Real time use of class in live projects 3.4. Inheritance, super class and overloading operators, 3.5. Static and class methods 3.6. Adding and retrieving dynamic attributes of classes 3.7. Programming using OOPS 3.8. Deligation and container</p> <p>Extra Readings: Integrating GUI framework with OOP</p>	15	6
4	<p>4. Python Regular Expression 4.1. Powerful pattern matching and searching 4.2. Power of pattern searching using regex in python 4.3. Real time parsing of data using regex 4.4. Password, email, URL validation using regular expression 4.5. Pattern finding programs using regular expression</p>	10	4

	Extra Readings: Web scrapping and pattern matching with regex		
5	<p>5. Python Multithreading and Exception Handling</p> <p>5.1. Exception Handling</p> <p>5.2. Avoiding code break using exception handling</p> <p>5.3. Safe guarding file operation using exception handling</p> <p>5.4. Handling and helping developer with error code</p> <p>5.5. Programming using Exception handling</p> <p>5.6. Multithreading</p> <p>5.7. Understanding threads</p> <p>5.8. Synchronizing the threads</p> <p>5.9. Programming using multithreading</p> <p>Extra Readings: Multiprocessing, deadlock, synchronization, monitors and messaging queue</p>	10	5
6	<p>6. Python File Operation</p> <p>6.1. Reading config files in python</p> <p>6.2. Writing log files in python</p> <p>6.3. Understanding read functions, read(), readline() and readlines()</p> <p>6.4. Understanding write</p> <p>6.5. functions write() and writelines()</p> <p>6.6. Manipulating file pointer using seek</p> <p>6.7. Programming using file operations</p> <p>Extra Readings: Reading and writing the files on AWS S3 bucket</p>	5	2
7	<p>7. Python Database Interaction</p> <p>7.1. Introduction to NoSQL database</p> <p>7.2. Advantages of NoSQL database</p> <p>7.3. SQL Vs NoSQL</p> <p>7.4. Introduction to MongoDB with python</p> <p>7.5. Exploring Collections and Documents</p> <p>7.6. Performing basic CRUD operations with MongoDB and python</p> <p>Extra Readings: Graph database like Neo4j with python</p>	10	5
8	<p>8. Python for Data Analysis</p> <p>8.1. NumPy:</p> <p>8.2. Introduction to NumPy</p> <p>8.3. Creating arrays, Using arrays and Scalars</p> <p>8.4. Indexing Arrays, Array Transposition</p> <p>8.5. Universal Array Function</p> <p>8.6. Array Input and Output</p> <p>8.7. Pandas:</p> <p>8.8. What are pandas? Where it is used?</p> <p>8.9. Series in pandas, pandas DataFrames, Index objects, ReIndex</p>	20	9

8.10.	Drop Entry, Selecting Entries		
8.11.	Data Alignment, Rank and Sort		
8.12.	Summary Statics, Missing Data, Index Hierarchy		
8.13.	Matplotlib:		
8.14.	Python for Data Visualization		
8.15.	Introduction to Matplotlib		
8.16.	Visualization Tools		
Extra Readings: Text analytics with NLP and python			
Total:		100	45

Course References:

Recommended Books:

Text Books:

Introduction to Python Programming, By Gowrishankar S, CRC Press

Reference Books:

1. Learning Python 5th ed. by Mark Lutz
2. Python: The Complete Reference by Martin C. Brown
3. Python Data Analytics: With Pandas, NumPy, and Matplotlib 2nd ed. Edition by Fabio Nelli
4. Core Python Programming by Wesley J. Chun Publisher: Prentice Hall
5. Python Programming: A modular approach by Taneja Sheetal, Kumar Naveen
6. Beginner's Guide to Python Programming: Learn Python 3 Fundamentals, Plotting and Tkinter GUI Development Easily by Serhan Yamacli
7. Programming Python, O'reilly, by Mark Lutz
8. Learning Python, O'reilly, Mark Lutz
9. Head First Python, O'reilly, By Paul Barry

Recommended Certifications:

1. Programming, Data Structures and Algorithms Using Python
https://swayam.gov.in/nd1_noc19_cs40/preview
2. Data Analytics with Python https://swayam.gov.in/nd1_noc20_cs46/preview

Course Code: IT-22
Course Name: Software Project Management

Credit Scheme			Evaluation Scheme				
Lecture	Practical	Credit	Internal			External	Total
			Written	Practical	Tutorial		
3 Hrs./Week	-	3	10	10	5	50	75

Course Description:

Prerequisite:

Basic Software Engineering process

Course Objectives:

1. To learn process of Software Project Management.
2. To Study role of Project Manager in Project Management.
3. To learn Agile Project Management Framework.
4. To study various role of Agile Team and Tools.
5. To understand project planning and tracking.

Course Outcomes:

Student will be able to

- CO1: Understand the process of Software Project Management Framework and Apply estimation techniques. (Apply)
- CO2: Learn the philosophy, principles and lifecycle of an agile project. (Understand)
- CO3: Demonstrate Agile Teams and Tools and Apply agile project constraints and trade-offs for estimating project size and schedule (Apply)
- CO4: Explain Project Tracking and Interpretation of Progress Report (Understand)
- CO5: Analyze Problem statement and evaluate User Stories (Analyze)

Course Structure:

Sr. No.	Topics Details	Weightage in %	No of Sessions
1	1. Linear Project Management Framework 1.1 Overview of project Management 1.2 Project management life cycle-IEEE Life Cycle 1.3 Project Management Process 1.4 Role of Project Manager 1.5 Quality Metrics 1.6 Risk Management Process (Case Study Based) 1.6.1 Risk Identification 1.6.2 Risk Analysis 1.6.3 Risk Mitigation 1.6.4 RMMM 1.7 Hands on MS Project Tool– Resource	15	6

	<p>Allocation, Scheduling, Gantt chart</p> <p>Note: Case studies based on Risk Management, MS Project tool & Gantt Chart</p> <p>Extra Reading: Different software project management, Types of Risk, Risk Information sheet (RIS), CPM and PERT</p>		
2	<p>2. Linear Software Project Estimation</p> <p>2.1 Different methods of Cost estimation</p> <p>2.1.1 COCOMO-I & II model (Problem Statement)</p> <p>2.1.2 Delphi cost estimation</p> <p>2.2 Function Point Analysis (Problem Statement)</p> <p>2.3 The SEI Capability Maturity Model CMM</p> <p>2.4 Software Configuration management</p> <p>Note: Case studies/Numerical Problems based on COCOMO-I and FPA</p> <p>Extra Reading: KLOC, Rayleigh Curve, Change Management, Configuration management tool - SVN Tool or Redmine</p>	20	8
3	<p>3. Agile Project Management Framework</p> <p>3.1 Introduction and Definition Agile, Agile Project Life Cycle</p> <p>3.2 Agile Manifesto: History of Agile and Agile Principles</p> <p>3.3 Key Agile Concepts:</p> <p>3.3.1 User stories, Story points</p> <p>3.3.2 Product Backlog</p> <p>3.3.3 Sprint Backlog,</p> <p>3.3.4 Sprint Velocity</p> <p>3.3.5 Swim lanes</p> <p>3.3.6 Minimum Viable Product (MVP)</p> <p>3.3.7 Version and Release</p> <p>3.4 Agile Project Management v/s Traditional Project Management</p> <p>Note: Case studies based on agile vs. traditional project</p> <p>Extra Reading: Study Scrum Agile Framework, Agile project management delivery & methodology framework, Software project team management and different team structures</p>	15	10
4	<p>4 Agile Teams, Size and Schedule</p> <p>4.1 Dynamic System Development Method</p>	15	10

	<p>4.2 Value-Driven Development</p> <p>4.3 Team and roles of an Agile Team</p> <p> 4.3.1 Scrum Master</p> <p> 4.3.2 Product Owner</p> <p> 4.3.3 Development Team</p> <p>4.4 Product Vision and Product Roadmap</p> <p>4.5 Project Objective and Key Metrics</p> <p>4.6 Introduction to User Stories</p> <p>4.7 Estimate the Product Backlog</p> <p>4.8 Techniques for estimating Story Points</p> <p>4.9 Plan Product Releases</p> <p>4.10 Product Prioritization</p> <p>Note: Case studies based on Estimation of Product backlog & Story points, design your team and Add screenshots with the caption, Design User stories, log efforts and task in detail</p> <p>Extra Reading: Personnel Management, Release & iteration planning, eXtreme Programming (XP), Values and Principles, Team Dynamics and Collaboration</p>		
5	<p>5.Tracking Agile Project and Reports</p> <p>5.1 Introduction</p> <p>5.2 Plan and Execute Iteration</p> <p>5.3 Facilitate Retrospective, Making Team Decisions and Closing out Retrospective</p> <p>5.4 Agile Reports</p> <p> 5.4.1 Daily Reports</p> <p> 5.4.2 Sprint Burn down Chart and Reports</p> <p>5.5 Benefits of Agile Project Management</p> <p>Note: Case studies based on No. of iterations and Project Report, Sprint Chart</p> <p>Extra Reading: Use of MS Project to track agile project, Agile project management tools, Feature-Driven Development, Agile Metrics</p>	20	5
6	<p>6. Implementation with Agile Tools</p> <p>6.1 Introduction of Agile Tools</p> <p>6.2 Hands on GitHub</p> <p> 6.2.1 Create Project using Kanban</p> <p> 6.2.2 Project Repositories</p> <p> 6.2.3 Continuous Integration</p> <p> 6.2.4 Project Backlog</p> <p> 6.2.5 Team Management</p> <p> 6.2.6 Progress Tracking</p>	15	6

	<p>6.2.7 Releases</p> <p>6.3 Implementation of Problem statement with Agile Tools- GitHub</p> <p>6.3.1 Designing Product Vision, Product Backlog,</p> <p>6.3.2 Sprint Backlog, Estimate Story Points</p> <p>6.3.3 Iteration Release</p> <p>Note: Case study on design of product vision & backlog with features and user stories, Estimation of story points, Design Iteration Plan, Iteration progress and close iteration in detail</p> <p>Extra Reading: Agile modeling, Explore various Agile Tools</p>		
Total:		100	45

List of Practical's (if any)

1. Design Project Management plan template by using MS-Project tool. (Resource allocation, Scheduling, Cost Calculation and Gantt Chart)
2. Create project plan using agile methodologies for the development of web page of Library Management System as a minimum viable product using 3 resources as per sprint planning.
3. Calculate the effort to execute the task and prioritize the task to execute in the current sprint and keep rest of the task in backlog.
4. Demo of the task developed by the developer in the Sprint.
5. Retrospective to discuss about the short coming and improvement of the design and execution of the Sprint task.
6. Check in the developed code in the GitHub repository.

Course References:

Recommended Books:

Text Books:

1. Software engineering principles and practice, McGraw-Hill, Waman S. Javadekar
2. Software Engineering by Pressman
3. Agile Project Management for Dummies, 2nd Edition
4. Coaching Agile Teams: A Comparison for ScrumMasters, Agile Coaches, and Project Managers in Transition, Lyssa Adkins
5. Agile Project Management: Creating Innovative Products (2nd Edition) by Jim Highsmith, Addison-Wesley Professional

Reference Books:

1. Mark C. Layton, Steven J. Ostermiller
2. Agile Estimating and Planning by Mike Cohn Robert C Martin Series
3. Introduction to Software Project Management by Adolfo Villafiorita, CRC Press
4. Agile Project Management with Scrum by Ken Schwaber, Microsoft Press © 2004
5. Agile Project Management QuickStart Guide : The Simplified Beginners Guide to Agile Project Management by ClydeBank Business
6. Agile Product Management with Scrum: Creating Products that Customers Love by Roman Pichler.
7. Scrum Mastery: From Good to Great Servant-Leadership by Geoff Watts
8. Agile Project Management for Dummies by Mark C. Layton
9. The Agile Enterprise: Building and Running Agile Organizations by Mario E. Moreira
10. Scrum: The Art of Doing Twice the Work in Half the Time by Jeff Sutherland
11. Essential Scrum: A Practical Guide to the Most Popular Agile Process by Kenneth S. Rubin
12. Agile Project Management with Kanban By Eric Brechner
13. Agile Constraints: Creating and Managing Successful Projects with Scrum, Multiple authors

Recommended Learning Material:

1. <https://learning.tcsionhub.in/>
2. <https://www.agilealliance.org>
3. <http://www.pmi.org>
4. <https://github.com/topics/kanban>
5. <https://www.opensourcescrum.com/>
6. <https://www.scrum.org/resources>
7. <https://www.tutorialspoint.com/agile/index.htm>
8. <https://www.atlassian.com/agile>
9. <https://www.javatpoint.com/agile>
10. <https://www.guru99.com/agile-testing-course.html>
11. <https://www.visual-paradigm.com/tutorials/agile-tutorial/>

Recommended Certifications:

1. Project Management Professional (PMP)
2. PMI-ACP(Agile Certified Practitioner)
3. Associate in Project Management
4. BVOP Certified Project Manager
5. Certified Associate in Project Management (CAPM)
6. Certified Project Director

7. Certified Project Management Practitioner (CPMP)
8. Certified Project Manager (CPM)
9. Certified ScrumMaster (CSM)
10. CompTIA Project+
11. Master Project Manager (MPM)
12. PRINCE2 Foundation/PRINCE2 Practitioner
13. Professional in Project Management (PPM)
14. Project Management in IT Security (PMITS)
15. APMG International
16. Strategyx Certificate (Associate or Master's) in Agile
17. International Consortium for Agile (ICAgile)
18. Agile Certification Institute
19. Scaled Agile Academy
20. Scrum Alliance
21. Certified Agile Project Manager (IAPM)

Course Code: MT-21
Course Name: Optimization Techniques

Credit Scheme			Evaluation Scheme				
Lecture	Practical	Credit	Internal			External	Total
			Written	Practical	Tutorial		
3 Hrs./Week	-	3	10	10	5	50	75

Course Description:

Prerequisite:

Basic mathematical knowledge is essentials.

Course Objectives:

1. To understand the role and principles of optimization techniques in business world.
2. To understand the process of problem statement formulation of the business scenario.
3. To understand the implementation of various decision-making techniques in the process of decision making.
4. To gain the techniques and skills on how to use optimization techniques to support the decision making in business world.

Course Outcomes:

Student will be able to

CO1: Understand the role and principles of optimization techniques in business world (Understand)

CO2: Demonstrate specific optimization technique for effective decision making (Apply)

CO3: Apply the optimization techniques in business environments (Apply)

CO4: Illustrate and infer for the business scenario (Analyze)

CO5: Analyze the optimization techniques in strategic planning for optimal gain. (Analyze)

Course Structure:

Sr. No.	Topics Details	Weightage in %	No of Sessions
1	<p>1. Linear Programming</p> <p>1.1. Various definitions, statements of basic theorems and properties, Advantages and Limitations,</p> <p>1.2. Application areas of Linear programming</p> <p>1.3. Linear Programming – Concept</p> <p>1.4. Simplex Method and Problems</p> <p>1.5. Two Phase Simplex Method and problems,</p> <p>Note: Case study-based problems</p>	20	10

	Extra Readings: Formulation of Linear programming, Solution of LPP using Graphical method		
2	<p>2. Markov Chains & Simulation Techniques:</p> <p>2.1 Markov chains: Applications related to technical functional areas,</p> <p>2.2 Steady state Probabilities and its implications,</p> <p>2.3 Decision making based on the inferences Monte Carlo Simulation.</p> <p>Extra Readings: Application of Markov chain in Queuing theory, Simulation techniques used in Machine learning and bioinformatics</p>	15	7
3	<p>3. Sequential model and related Problems</p> <p>3.1 Processing n jobs through 2 machines</p> <p>3.2 Processing n jobs through 3 machines</p> <p>3.3 Processing n jobs through m machine</p> <p>Extra Readings: Processing of n jobs through m machines</p>	15	6
4	<p>4. PERT & CPM</p> <p>4.1 Basic differences between PERT and CPM.</p> <p>4.2 Network diagram</p> <p>4.3 Time estimates (Forward Pass Computation, Backward Pass Computation)</p> <p>4.4 Critical Path</p> <p>4.5 Probability of meeting scheduled date of completion,</p> <p>4.6 Calculation on CPM network.</p> <p>4.7 Various floats for activities</p> <p>4.8 Event Slack</p> <p>4.9 Calculation on PERT network.</p> <p>4.10 Application of schedule based on cost analysis and crashing</p> <p>4.11 Case study-based problems</p> <p>Extra Readings: Optimal Cost estimation by crashing the network, Explore the MS Project tool.</p>	20	10
5	<p>5. Game Theory</p> <p>5.1 Introduction</p> <p>5.2 n X m zero sum game with dominance</p> <p>5.3 Solution using Algebraic, Arithmetic and Matrix strategy</p> <p>Extra Readings: Learn the difference between Sequential and Simultaneous game</p>	15	6

6	6. Decision Analysis 6.1 Introduction to Decision Analysis 6.2 Types of Decision-making environment 6.3 Decision making under uncertainty and under risk 6.4 Concept of Decision Tree Extra Readings: Decision models in Econometrics and computer science	15	6
Total:		100	45

List of Practicals (if any)

Practicals to be conducted on the following topics. It is expected that, Applications to be covered using Python and /or R.

1. Linear Programming
2. Markov Chain and Simulation Techniques
3. Sequential models and related problems
4. CPM and PERT
5. Game Theory
6. Decision Analysis

Course References:

Recommended Books:

Text Books:

1. Operations Research by Pannerselvam
2. Operations Research Theory and Application by J. K. Sharma –Mac-Millan Publication
3. Statistical and Quantative Methods – Mr. Ranjit Chitale

Reference Books:

1. Statistical Methods – S.P.Gupta, Sultan Chand, New Delhi
2. Operation Research by V. k. Kapoor
3. Operations Research by Kanti Swaroop, P. K. Gupta and Man Mohan
4. Introduction to Operations Research by Hiller & Lieberman, Tata Mc Graw Hill
5. Operations Research by H. A. Taha
6. Operation Research by Hira & Gupta
7. What is Game Theory?, David K. Levine, Economics, UCLA
8. Recommended Learning Material:

Research Software:

1. MS Excel Solver
2. TORA
3. Python and / or R programming

Websites:

1. www.orsi.in
2. www.atozoperationalresearch.com

Websites for practical sessions:

1. <https://towardsdatascience.com/linear-programming-and-discrete-optimization-with-python-using-pulp-449f3c5f6e99>
2. <https://github.com/topics/operations-research?l=python>
3. <https://github.com/Gabeqb/Linear-Programming-With-Python/commit/a61be0d5fc8e66dd38f3d094bb80cef6a9a04152>

Journals:

1. International Journal of Operations Research and Management science
2. International Journal of Operations and Quantitative Management
3. Indian Journal of Advance Operations Management.

Recommended Certifications:

1. Data science with Python
2. Data science with R programming
3. Certification in Machine Learning
4. Certification in Tableau

Course Code: IT-23
Course Name: Advanced Internet Technologies

Credit Scheme			Evaluation Scheme				
Lecture	Practical	Credit	Internal			External	Total
			Written	Practical	Tutorial		
3 Hrs./Week	-	3	25	-	-	50	75

Course Description:

Prerequisite:

Student must have hands-on working knowledge of HTML, CSS, JavaScript and Angular JS

Course Objectives:

1. To impart the design, development and implementation of Dynamic Web Pages.
2. To implement the Latest properties of CSS3
3. To implement the Concept of NodeJS.
4. To develop programs for Web using Angular and SPA.
5. To design and implement dynamic websites with good sense of designing and latest technical aspects.

Course Outcomes:

Student will be able to

- CO1: Outline the basic concepts of Advance Internet Technologies (Understand)
- CO2: Design appropriate user interfaces and implements webpage based on given problem Statement (Apply)
- CO3: Implement concepts and methods of NodeJS (Apply)
- CO4: Implement concepts and methods of Angular (Apply)
- CO5: Build Dynamic web pages using server-side PHP programming with Database Connectivity (Apply)

Course Structure:

Sr. No.	Topics Details	Weightage in %	No of Sessions
1	1. Introduction to HTML5 1.1. Basics of HTML5 – Introduction, features, form new elements, attributes and semantics in HTML5 1.2. <canvas>, <video>, <audio>. 1.3. Introduction to Scalable Vector Graphics (SVG) 1.4. Introduction to Version compatibility 1.5. Installation of Apache Tomcat (Xampp/Lampp/MySQL)	10	5

	Extra Reading: Geo location, Drag, Drop, Web Storage		
2	2. Introduction to CSS3 2.1. Architecture of CSS 2.2. CSS Modules 2.3. CSS Framework 2.4. Selectors and Pseudo Classes 2.5. Fonts and Text Effects 2.6. Colors, Background Images, and Masks Extra Reading: Transitions, Transforms and Animations Embedding Media, Gradients, Bootstrap	10	5
3	3. Node JS 3.1. introduction and how it works 3.2. installation of node js 3.3. REPL 3.4. NPM 3.5. How modules work 3.6. Webserver Creation 3.7. Events Extra Reading: Node.js with MySQL	25	12
4	4. Angular (Latest Stable Version) 4.1. Introduction (Features and Advantage) 4.2. Type Script 4.3. Modules 4.4. Components 4.5. Directives, Expression, Filters 4.6. Dependency Injection 4.7. Services 4.8. Routing 4.9. SPA (Single Page Application) Extra Reading: Data binding, property binding, Event Binding, Two-way data binding, String Interpolation.	25	12
5	5. PHP 5.1. Installing and Configuring PHP 5.2. Introduction 5.2.1. PHP and the Web Server Architecture, PHP Capabilities	30	11

	5.2.2. PHP and HTTP Environment Variables 5.2.3. Variables 5.2.4. Constants 5.2.5. Data Types 5.2.6. Operators 5.2.7. Working with Arrays 5.3. Decision Making, Flow Control and Loops 5.4. Introduction to Laravel 5.5. Creating a Dynamic HTML Form with PHP 5.6. Database Connectivity with MySQL 5.6.1. Performing basic database operations (CRUD) 5.7. Using GET, POST, REQUEST, SESSION, and COOKIE Variables Extra Reading: Sending Emails, PHP with AJAX and XML, Payment Gateway Integration		
Total:		100	45

Course References:

Recommended Books:

Text Books:

1. Complete reference HTML, TMH
2. HTML5 & CSS3, Castro Elizabeth 7th Edition
3. Beginning Node.js by Basarat Ali Syed
4. Angular: Up and Running- Learning Angular, Step by Step by Shyam Seshadri
5. Beginning PHP, Apache, MySQL web development

Reference Books

1. Introducing HTML5 - Bruce Lawson, Remy Sharp
2. Node.js in Action, 2ed by Alex Young, Bradley Meck
3. Mastering Node.js by Pasquali Sandro
4. Angular Essentials by Kumar Dhananjay
5. Complete Ref. PHP

Recommended Learning Material:

- MOOC Courses

- 1) **Introduction to HTML5 – University of Michigan**
<https://www.coursera.org/learn/html>

- 2) **Introduction to Web Development – University of California**
<https://www.coursera.org/learn/web-development>
- 3) **HTML, CSS and JavaScript for Web Developers – Johns Hopkins University**
<https://www.coursera.org/learn/html-css-javascript-for-web-developers>
- 4) **Web Design for Everybody: Basics of Web Development & Coding Specialization – University of Michigan**
<https://www.coursera.org/specializations/web-design>
- 5) **Introduction to CSS3 – University of Michigan**
<https://www.coursera.org/learn/introcss>
- 6) **Server-side Development with NodeJS, Express and MongoDB – The Hong Kong University of Science and Technology**
<https://www.coursera.org/learn/server-side-nodejs>
- 7) **Front-End Web UI Frameworks and Tools: Bootstrap 4 – The Hong Kong University of Science and Technology**
<https://www.coursera.org/learn/bootstrap-4>
- 8) **Front-End JavaScript Frameworks: Angular – The Hong Kong University of Science and Technology**
<https://www.coursera.org/learn/angular>
- 9) **Single Page Web Applications with AngularJS – John Hopkins University**
<https://www.coursera.org/learn/single-page-web-apps-with-angularjs>
- 10) **Building Web Applications in PHP – University of Michigan**
<https://www.coursera.org/learn/web-applications-php>
- 11) **Building Database Applications in PHP – University of Michigan**
<https://www.coursera.org/learn/database-applications-php>
- 12) **Web Applications for Everybody Specialization**
<https://www.coursera.org/specializations/web-applications>

- Other Learning Material

- ❖ **HTML 5, CSS3, JavaScript**

- <https://www.htmldog.com/>
- <https://www.w3schools.com/>
- <https://qhmit.com/>
- <http://www.landofcode.com/>
- <https://www.codecademy.com/>
- <http://www.echoecho.com/html.htm>
- <https://www.awwwards.com/>

- ❖ **Bootstrap**

- <https://www.w3schools.com/bootstrap4/>
- <https://getbootstrap.com/>
- <https://www.freecodecamp.org/news/learn-bootstrap-4-in-30-minute-by-building-a-landing-page-website-guide-for-beginners-f64e03833f33/>
- <https://www.freecodecamp.org/news/want-to-learn-bootstrap-4-heres-our-free-10-part-course-happy-easter-35c004dc45a4/>

- ❖ **NodeJS**

- <https://nodejs.org/en/docs/guides/>
- <https://www.w3schools.com/nodejs/>
- <https://www.nodebeginner.org/>
- <http://visionmedia.github.io/masteringnode/>

- ❖ **Angular**

- <https://www.c-sharpcorner.com/topics/angular-8>
- <https://www.javatpoint.com/angular-8>
- ❖ **PHP**
 - <https://www.php.net/manual/en/index.php>
 - <https://phptherightway.com/>
 - https://www.tutorialspoint.com/php/php_useful_resources.htm
 - <https://www.w3schools.com/php/>

Recommended Certifications:

1. Microsoft HTML5 and CSS3 (<https://www.microsoft.com/en-us/learning/exam-70-480.aspx>)
2. Certification available on Coursera and Udemy.

Course Code: IT-24
Course Name: Advanced DBMS

Credit Scheme			Evaluation Scheme				
Lecture	Practical	Credit	Internal			External	Total
			Written	Practical	Tutorial		
3 Hrs./Week	-	3	15	10	-	50	75

Course Description:

Prerequisite:

Basics of Database Concepts

Course Objectives:

1. To understand core concepts of database management system and its types
2. To provide database design approaches using E-R model and normalization
3. To discuss transaction management and concurrency control
4. To gain an awareness of the structure of object-oriented database and its applications
5. To gain familiarization of Database crash, recovery concepts and security issues
6. To Demonstrate SQL, XML schema and NO SQL database

Course Outcomes:

Student will be able to

- CO1: Describe the core concepts of DBMS and various databases used in real applications (Understand)
- CO2: Design relational database using E-R model and normalization (Apply)
- CO3: Demonstrate XML database and nonprocedural structural query languages for data access (Apply)
- CO4: Explain concepts of Parallel, Distributed and Object-Oriented Databases and their applications (Understand)
- CO5: Apply transaction management, recovery management, backup and security – privacy concepts for database applications (Apply)

Course Structure:

Sr. No.	Topics Details	Weightage in %	No of Sessions
1	1. Introduction DBMS – Concepts & Architectures 1.1 Database and Need for DBMS, Characteristics of DBMS 1.2 Database 3-tier schema (ANSI/SPARC) and system architecture of DBMS 1.3 Views of data- Schemas and instances, Data Independence	10	4

	<p>1.4 Centralized, Client-Server system, Transaction servers, Data servers, Cloud based servers</p> <p>Extra Reading: Indexing and Hashing - Basic concepts of indexing, ordered index, B+ tree index, B+ tree extensions, Multiple key access, Hashing concepts, types of hashing, Bitmap indices</p>		
2	<p>2. Data Modelling and Relational Database Design</p> <p>2.1 Data Modelling using ER Diagram: Representation of Entities, Attributes, Relationships and their Type, Cardinality, Generalization, Specialization, Aggregation.</p> <p>2.2 Relational data model: Structure of Relational Database Model, Types of keys, Referential Integrity Constraints</p> <p>2.3 Codd's rules</p> <p>2.4 Database Design using E-R, E-R to Relational</p> <p>2.5 Normalization – Normal forms based on primary (1 NF, 2 NF, 3NF, BCNF)</p> <p>Note: Case studies based on E-R diagram & Normalization</p> <p>Extra Reading: Database languages - Relational Algebra, Relational database languages, Data definition in SQL, Views and Queries in SQL, Joins, specifying constraints and Indexes in SQL, Specifying constraints management systems Postgres/ SQL/MySQL</p>	16	8
3	<p>3. Transaction and Concurrency control</p> <p>3.1. Concept of transaction, ACID properties, States of transaction</p> <p>3.2. Concurrency control, Problems in concurrency controls</p> <p>3.3. Scheduling of transactions, Serializability and testing of serializability</p> <p>3.4. Lock-based Protocol and Time stamp-based ordering protocols</p> <p>3.5. Deadlock Handling</p> <p>Extra Readings: Semantic data controls & Multi-version concurrency control</p>	13	6
4	<p>4. Parallel Databases</p> <p>4.1. Introduction to Parallel Databases</p> <p>4.2. Parallel Database Architectures</p> <p>4.3. I/O parallelism</p> <p>4.4. Inter-query and Intra-query parallelism</p> <p>4.5. Inter-operational and Intra-operational parallelism</p>	13	6

	<p>4.6. Key elements of parallel database processing: Speed-up, Scale-up Synchronization and Locking</p> <p>Extra Readings: Parallel handling and Load balancing</p>		
5	<p>5. Distributed Databases</p> <p>5.1. Introduction to Distributed Database System</p> <p>5.2. Homogeneous and Heterogeneous Databases</p> <p>5.3. Distributed data storage (Fragmentation and Replication)</p> <p>5.4. Distributed transactions</p> <p>5.5. Concurrency control schemes in DDBMS</p> <p>5.6. Commit protocols 2 phase and 3 Phase Commit Protocol</p> <p>Extra Readings: Reliability issues in DDBMS and Web based interface of DDBMS</p>	13	6
6	<p>6. Object Oriented Databases & Applications</p> <p>6.1. Overview of Object- Oriented Database concepts & characteristics</p> <p>6.2. Database design for OODBMS – Objects, OIDs and reference type</p> <p>6.3. Spatial data and Spatial indexing (Any two techniques)</p> <p>6.4. Mobile Database: Need, Structure, Features, Limitations and Applications</p> <p>6.5. Temporal databases, temporal aspects valid time, transaction time or decision time</p> <p>6.6. Multimedia Database: Architecture, Type and Characteristics</p>	10	4
7	<p>7. Crash Recovery and Backup</p> <p>7.1. Failure classifications</p> <p>7.2. Recovery & Atomicity</p> <p>7.3. Log based recovery</p> <p>7.4. Checkpoint and Shadow Paging in Data recovery</p> <p>7.5. Database backup and types of backups</p> <p>Extra Readings: Role and Functions of Database administrator</p>	10	5
8	<p>8. Security and Privacy</p> <p>8.1. Database security issues</p> <p>8.2. Discretionary access control based on grant & revoking privilege</p> <p>8.3. Mandatory access control and role-based access control for multilevel security</p> <p>8.4. Encryption & public key infrastructures</p>	10	4
9	<p>9. NO-SQL Database</p> <p>Introduction, Types of NOSQL, Need of NoSQL</p>	5	2

	databases, Use Cases		
Total:		100	45

List of Practicals (if any)

1. To install and configure database software (ORACLE/MYSQL)
2. To design a database (logical & physical database)
3. To Perform all SQL operations and queries on designed physical database
4. To install and configure NO-SQL database and practice for core operations
5. To perform experiments on database crash and recovery
6. To perform experiments on database Backup – restoring operations on database server
7. To perform some operations on Object oriented databases

Course References:

Recommended Books:

Text Books:

- 1.
2. Introduction to database systems C.J. Date, Pearson.
3. Fundamentals of Database Systems by Elmasri Navathe
4. Principles of Database Management James Martin, PHI
5. Database System Concepts by Abraham Silberschatz, H. Korth, Sudarshan

Reference Books:

1. Database Management System by Raghu Ramakrishnan / Johannes Gherke
2. Database Management System (DBMS)A Practical Approach. By Rajiv Chopra
3. Database system practical approach to design, implementation & management by Connolly & Begg,
4. NoSQL Distilled: A Brief Guide to the Emerging World of Polyglot Persistence Martin Fowler

Recommended Certifications:

1. Oracle certified associate (OCA)
2. Oracle certified professional (OCP)
3. Database administrator (DBA)
4. Database related certification courses available at NPTEL/Coursera/Udemy

Course Code: IT-21L
Course Name: Practicals

Credit Scheme			Evaluation Scheme				
Lecture	Practical	Credit	Internal			External	Total
			Written	Practical	Tutorial		
-	10 Hrs./Week	5	-	75	-	50	125

Course Description:

This Practical course contains 2 sections. –

1. List of Practicals – Python Programming
2. List of Practicals – Advanced Internet Technologies

Course Outcomes:

Student will be able to

- CO1: implement python programming concepts for solving real life problems. (Apply)
CO2: Implement Advanced Internet Technologies (Apply)

Course Structure:

List of Practicals – Python Programming

Note:

- Recommended IDE for python – IDLE
 - Exception handling concepts should be used with file handling programs.
1. Python installation and configuration with windows and Linux
 2. Programs for understanding the data types, control flow statements, blocks and loops
 3. Programs for understanding functions, use of built in functions, user defined functions
 4. Programs to use existing modules, packages and creating modules, packages
 5. Programs for implementations of all object-oriented concepts like class, method, inheritance, polymorphism etc. (Real life examples must be covered for the implementation of object-oriented concepts)
 6. Programs for parsing of data, validations like Password, email, URL, etc.
 7. Programs for Pattern finding should be covered.
 8. Programs covering all the aspects of Exception handling, user defined exception, Multithreading should be covered.
 9. Programs demonstrating the IO operations like reading from file, writing into file from different file types like data file, binary file, etc.
 10. Programs to perform searching, adding, updating the content from the file.
 11. Program for performing CRUD operation with MongoDB and Python
 12. Basic programs with NumPy as Array, Searching and Sorting, date & time and String handling

13. Programs for series and data frames should be covered.
14. Programs to demonstrate data pre-processing and data handling with data frame
15. Program for data visualization should be covered.

List of Practicals – Advanced Internet Technologies

1. Program to implement Audio and Video features for your web page.
2. Program to design form using HTML5 elements, attributes and Semantics.
3. Programs using Canvas and SVG.
4. Programs to demonstrate external and internal styles in the web page using font, text, background, borders, opacity and other CSS 3 properties.
5. Implement Transformation using Translation, Rotation and Scaling in your web page.
6. Program to show current date and time using user defined module
7. Program using built-in modules to split the query string into readable parts.
8. Program using NPM which will convert entered string into either case
9. Write a program to create a calculator using Node JS. (Install and configure Node JS and Server)
10. Write Program for Form validation in Angular.
11. Program to demonstrate the ngif, ngfor, ngswitch statements.
12. Create angular project which will demonstrate the usage of component directive, structural directive and attribute directives
13. Create angular project which has HTML template and handle the click event on click of the button (Installation of Angular and Bootstrap 4 CSS Framework)
14. Program for basic operations, array and user interface handling.
15. Program to demonstrate session management using various techniques.
16. Program to perform the CRUD Operations using PHP Script.

Course Code: ITC21
Course Name: Mini Project

Credit Scheme			Evaluation Scheme				
Lecture	Practical	Credit	Internal			External	Total
			Written	Practical	Tutorial		
-	10 Hrs./Week	5	-	75	-	50	125

Course Description:

A mini project is an assignment that the student needs to complete at the end of every semester to strengthen the understanding of fundamentals through effective application of the subjects learnt.

Course Outcomes:

Student will be able to

CO1: Create working project using tools and techniques learnt in this semester (Create)

Course Structure:

Guidelines for Mini Project

1. Students are expected to undertake one mini project starting from first semester till third semester.
2. The student may take up the mini project in first semester based on the courses learnt in that semester and for every next semester the mini project may be based on the courses learnt in the current semester along with all the subjects learnt in earlier semesters.
3. The student may take up the project individually or in group. However, if project is done in group, each student must be given a responsibility for distinct modules.
4. Selected project/module must have relevant scope as per the marks assigned and must be carried out in the Institute.
5. Internal guide should monitor and evaluate the progress of the project on individual basis through handwritten workbook (Project Diary) maintained by students containing various project milestones with learnings and remarks from internal guide for concurrent evaluation.
6. The Project Synopsis should contain an Introduction to Project clearly stating the project scope in detail justifying enough scope for 125 marks. The project work will carry 75 marks for internal assessment and 50 marks for external assessment.
7. Students are expected to show working demo of the project during final evaluation.
- 8. Students are expected to upload mini-project on GITHUB as project repository of the institution.**
9. Students are expected to submit the soft copy of mini project report as a part of final submission.
10. The project will be assessed internally as well as externally by the examiners appointed by University. University may appoint Industry Experts as an external examiner
- 11.

Savitribai Phule Pune University, Pune

Faculty of Commerce and Management

Master of Computer Applications (MCA)

(2020-2022)

Semester III

Course Code: IT-31

Course Name: Mobile Application Development

Credit Scheme			Evaluation Scheme				
Lecture	Practical	Credit	Internal			External	Total
			Written	Practical	Tutorial		
3 Hrs./Week	-	3	25	-	-	50	75

Course Description:

Course Objectives:

1. To understand the different mobile application Architectures.
2. To understand different types of widgets like buttons, views, layout etc.
3. To know the ways of application handling like intents, adapters, Notifications, Web Services and Web View.
4. To learn and know about data storing, retrieval and sharing in android.
5. To explore cross platform mobile application development framework, React Native and Flutter.

Course Outcomes:

Student will be able to

- CO1: Understand Various Mobile Application Architectures. (Understand)
- CO2: Apply different types of widgets and Layouts. (Apply)
- CO3: Describe Web Services and Web Views in mobile applications. (Understand)
- CO4: Implement data storing and retrieval methods in android. (Apply)
- CO5: Demonstrate Hybrid Mobile App Framework. (Apply)

Course Structure:

Unit No.	Topics Details	Weightage in %	No of Sessions
1	1. Mobile application development architectures 1.1. Introduction to Mobile Application technologies 1.2. Android Architecture 1.3. IOS Architecture 1.4. Windows Architecture 1.5. Hybrid Architecture	14	5
2	2. Creating Android Application 2.1. Creating Android project 2.2. Project Structure 2.3. Activity and Activity Life Cycle 2.4. Fragment and Fragment Life Cycle 2.5 Views and View groups	20	10
3	3. Interactivity Tools 3.1. Intents and Filters 3.2. Adapters 3.3. Dialogs 3.4. Menus 3.5. Notifications	20	10
4	4. Interaction with Database 4.1. Introduction to Database (SQLite and Firebase) 4.2. Cursors and content values 4.3. CRUD Operations	16	6
5	5. Web Services and Web View 5.1. Introduction to web services 5.2. Receiving HTTP Response (JSON, XML) 5.3. Parsing JSON and XML 5.4. Introduction to Web View	12	5
6	6. React Native 6.1. Introduction 6.2. Environment Setup 6.3. JavaScript ES6 Overview 6.4. Create React Native App 6.5. React Native Alert API 6.6. React Native Geolocation API 6.7. Third Party Libraries	10	5
7	7. Introduction Flutter 7.1. Overview of Flutter 7.2. Installation of Flutter 7.3. Architecture of Flutter 7.4. Introduction to Dart Programming 7.5. Demonstration of Simple application	8	4
Total:		100	45

Course References:

Reference Books:

1. Professional Android 4 Application Development by Meier, Reto - Wiley Education
2. Beginning Android 4 Application Development by Lee, Wei- Meng - Wiley Education
3. Android application Development: in 24 hours by Delessio, Carmen; Darcey, Lauren; Conder, Shane - Pearson Education
4. Android by Dixit, Prasanna Kumar - Vikas Publishing House
5. Android Studio Development Essentials Book by Neil Smith
6. Beginning App Development with Flutter by Rap Payne
7. Flutter in Action by Eric Windmill
8. REACT NATIVE IN ACTION DEVELOPING IOS AND ANDROID APPS WITH JAVASCRIPT BOOK BY NADER DABIT

Web Reference:

1. <https://developer.android.com>
2. <https://facebook.github.io/react-native/docs/tutorial>
3. <https://flutter.dev/docs/get-started/install>

Course Code: IT-32

Course Name: Data Warehousing and Data Mining

Credit Scheme			Evaluation Scheme				
Lecture	Practical	Credit	Internal			External	Total
			Written	Practical	Tutorial		
3 Hrs./Week	-	3	10	10	5	50	75

Course Description:

Course Objectives:

1. To introduce the concepts, techniques and applications of data warehousing and data mining.
2. To understand how to Preprocess, understand and analyze various kinds of data
3. To Study data warehouse Concepts, architectures, OLAP and the project planning aspects in building a data warehouse
4. To enable students to understand and implement various techniques of association, classification and clustering in data mining
5. To enable students to understand and implement the concepts of Web mining and Text Mining in data mining

Course Outcomes:

Student will be able to

CO1: Understand Data warehouse concepts, architecture and models (Understand)

CO2: Learn and understand techniques of preprocessing on various kinds of data (Understand)

CO3: Apply association Mining and Classification Techniques on Data Sets (Apply)

CO4: Apply Clustering Techniques and Web Mining on Data Sets (Apply)

CO5: Understand other approaches of Data mining (Understand)

Course Structure:

Unit No.	Topics Details	Weightage in %	No of Sessions
1	<p>1. Data Warehouse Fundamentals</p> <p>1.1. Introduction to Data Warehouse, OLTP Systems; Differences between OLTP Systems and Data Warehouse:</p> <p>1.2. Characteristics of Data Warehouse; Functionality of Data Warehouse:</p> <p>1.3. Advantages and Applications of Data Warehouse; Top- Down and Bottom-Up Development Methodology:</p> <p>1.4. Tools for Data warehouse development: Data</p>	15	6

	<p>Warehouse Types</p> <p>1.5. Planning and Project Management in constructing Data warehouse: Data Warehouse Project;</p> <p>1.6. Data Warehouse development Life Cycle, Kimball Lifecycle Diagram</p>		
2	<p>2. Data Warehouse Architecture</p> <p>2.1. Introductions, Components of Data warehouse Architecture</p> <p>2.2. Technical Architectures; Federated Data Warehouse Architecture: Tool selection;</p> <p>2.3. Dimensional Modeling: E-R Modeling VS Dimensional Modeling</p> <p>2.4. Data Warehouse Schemas; Star Schema, Inside Dimensional Table, Inside Fact Table, Fact Less Fact Table, Granularity, Star Schema Keys: Snowflake Schema, Fact Constellation Schema</p> <p>2.5. Introduction to Metadata : Categorizing Metadata:</p> <p>2.6. Metadata management in practice; Meta data requirements gathering, Metadata classification, Meta data collection strategies, Tools for Metadata Management</p>	15	6
3	<p>3. Data Preprocessing and ETL</p> <p>3.1. Data Pre-processing: Data Cleaning tasks</p> <p>3.2. Data Integration and Data Reduction</p> <p>3.3. Discretization and Concept Hierarchy Generation</p> <p>3.4. Data Transformation; Basic Tasks in Transformation, Major Data Transformation Types</p> <p>3.5. Introduction to ETL(Extract, Transform and Load)</p> <p>3.6. ETL requirements and steps: Data Extraction; Extraction Methods, Logical Extraction Methods, Physical Extraction Methods</p> <p>3.7. Data loading; Data Loading Techniques, ETL Tools</p>	20	7
4	<p>4. Data Warehouse & OLAP:</p> <p>4.1. Introduction: What is OLAP?; Characteristics of OLAP,</p> <p>4.2. Steps in the OLAP Creation Process, OLAP operations, Advantages of OLAP: Multidimensional Data:</p> <p>4.3. OLAP Architectures; MOLAP, ROLAP, HOLAP:</p> <p>4.4. Data Warehouse and OLAP: Hypercube & Multicubes</p>	10	5
5	<p>5. Introduction to Data Mining:</p> <p>5.1. Introduction and Scope of Data Mining</p> <p>5.2. How does Data Mining Works, Predictive Modeling</p> <p>5.3. Data Mining and Data Warehousing</p> <p>5.4. Architecture for Data Mining</p>	5	4

	5.5. Profitable Applications: Data Mining Tools:		
6	6. Data Mining Techniques 6.1. An Overview: Introduction, Data Mining, Data Mining Versus Database Management System, 6.2. Data Mining Techniques- Association rules(Apriori, FP Tree algorithms) 6.3. Classification (Decision Tree induction, Bayesian classification, SVM, KNN) 6.4. Clustering, Neural networks. 6.5. Evaluating Association rules , Classification model	15	6
7	7. Clustering 7.1. Introduction to Clustering, Cluster Analysis 7.2. Clustering Methods- K means, Hierarchical clustering, Agglomerative clustering, Divisive clustering, 7.3. clustering and segmentation software 7.4. Evaluating clusters 7.5. Data Mining trends and Applications	10	5
8	8. Web Mining 8.1. Introduction, Terminologies 8.2. Categories of Web Mining: Web Content Mining, Web Structure Mining, Web Usage Mining 8.3. Applications of Web Mining, and Agent based and Database approaches, Web mining Software/Tools. 8.4. Text Mining: process and types, steps in Text Mining, applications and tools of Text Mining 8.5. Data visualization, Dashboard- KPI, Business Intelligence and its future.	10	6
Total:		100	45

List of Practicals (if any)

1. Creating a simple data warehouse & performing OLAP operations using simple tools
2. Extracting data from any Operational database (ETL) and performing pre-processing tasks
3. Performing association mining on large data sets and extracting best possible rules / a case study
4. Performing classification and evaluating the efficient model / a case study
5. A case study on finding efficient Clusters on very large set of documents data
6. A case study on Web mining and Text mining using software tools

Students may practice or implement Data warehouse, ETL & Data mining concepts on the following software/ tools (Students versions) at on premise / Cloud based platform

- 1) Data warehouse - My-SQL, MongoDB / Google BigQuery / Amazon Redshift / Talend
- 2) ETL Tools : Pentaho Kettle / Talend-Open Studio / Apache Kafka / Informatica Power Center
- 3) BI and Analytics tools : Python / XL-Miner, R-Studio / Rapid-Miner Studio
- 4) Visualization Tools : Tableau / Power-BI / Qlick sense

Course References:

Recommended Books:

Text Books:

1. Data Mining: Introductory and Advanced Topics, by Margaret Dunham, Pearson Education
2. Data Mining by Arun K. Pujari – University Press.

Reference Books:

1. DATAWAREHOUSING FUNDAMENTALS: A COMPREHENSIVE GUIDE FOR IT PROFESSIONALS, by Paulraj Poonniah, Latest Edition
2. Building the Data Warehouse, 3rd edition by W. H. Inmon
3. Data Mining concepts and Techniques by Jiawei Han, Micheline Kamber –Elsevier.
4. Data Mining practical Machine Learning Tools and Techniques by Ian H. Witten Eibe Frank Mark Hall - Elsevier publication
5. Introduction to Data Mining with Case Studies by G. K. Gupta, Prentice Hall

Web Reference:

1. www.ibm.com/in/en/
2. www.pentaho.com/
3. www.jaspersoft.com/
4. www.amazon.com/Data-Mining-Business-Intelligence-Applications
5. www.ibm.com/insights/in
6. www.sas.com
7. Weka– Data Mining with Open Source Machine Learning Software, www.cs.waikato.ac.nz/ml/weka.
8. <https://cloud.google.com/bigquery/>
9. <https://www.rstudio.com/> 10. <https://aws.amazon.com/redshift/>

Course Code: IT-33

Course Name: Software Testing and Quality Assurance

Credit Scheme			Evaluation Scheme				
Lecture	Practical	Credit	Internal			External	Total
			Written	Practical	Tutorial		
3 Hrs./Week	-	3	10	10	5	50	75

Course Description:

Course Objectives:

1. To understand the principles of software development emphasizing processes and activities of quality assurance
2. To study fundamental concepts in software testing, including software testing objectives, process, strategies and methods.
3. To understand test design techniques based on functionality and structure of software
4. To understand test planning, monitoring and control process
5. To gain the techniques and skills on how to use software testing tools to support software testing activities

Course Outcomes:

Student will be able to

CO1: Understand the role of software quality assurance in contributing to the efficient

delivery of software solutions. (Understand)

CO2: Demonstrate specific software tests with well-defined objectives and targets. (Apply)

CO3: Apply the software testing techniques in commercial environments. (Apply)

CO4: Construct test strategies and plans for software testing. (Analyze)

CO5: Demonstrate the usage of software testing tools for test effectiveness, efficiency and coverage (Apply)

Course Structure:

Unit No.	Topics Details	Weightage in %	No of Sessions
1	<ol style="list-style-type: none">1. Software Quality Assurance Fundamentals<ol style="list-style-type: none">1.1. Definition of Quality, Quality Assurance, Quality Control, Difference between QA and QC, Software Quality Assurance Challenges1.2. Software Quality Assurance, SQA Planning & Standards (ISO 9000, Six Sigma)1.3. SQA Activities	20	6

	<p>1.4. Building Blocks of SQA 1.5. Software Quality factors 1.6. Software Quality Metrics: Process Metrics & Product Metrics 1.7. Software Reliability & Reliability Measurement Factors: ROCOF, MTTF, MTTR, MTBF, POFOD, Availability</p> <p>Extra Reading: ISO/IEC 9126, ISO/IEC 25010:2011, Malcom Balridge</p>		
2	<p>2. Software Testing Fundamentals 2.1. Definition & Objectives of Testing 2.2. Role of testing and its effect on quality 2.3. Causes of software failure: Definition of -Error, Bug, Fault, Defect and Failure, 2.4. Economics of Testing 2.5. Seven Testing Principles 2.6. Software Testing Life cycle 2.7. Validation & Verification Concepts - V Model and W Model 2.8. Agile Testing- Test Driven Software Development 2.9. Levels of Testing- 2.9.1. Unit (Component) Testing 2.9.2. Integration Testing 2.9.3. System Testing 2.9.4. User Acceptance Testing (UAT) 2.10. Test Types 2.10.1. Functional testing (Black-box) 2.10.2. Non-functional testing (Testing of software product characteristics) 2.10.3. Structural testing (White-box) 2.10.4. Testing related to changes - Confirmation (Re-testing) and Regression Testing 2.11. Non-Functional Testing Types – 2.11.1. Performance (Load & Stress) 2.11.2. Usability 2.11.3. Maintainability 2.11.4. Portability 2.11.5. Security 2.11.6. Localization & Internationalization 2.12. Concept of Smoke testing and Sanity Testing</p>	17	10
3	<p>3. Static Testing 3.1. Static Techniques – Review 3.1.1. Review Process (Informal & Formal) 3.1.2. Desk Checking, 3.1.3. Technical or Peer Review 3.1.4. Walkthrough</p>	8	3

	<ul style="list-style-type: none"> 3.1.5. Inspection 3.2. Static Techniques – Static Analysis <ul style="list-style-type: none"> 3.2.1. Data flow analysis 3.2.2. Control flow analysis, 3.2.3. Static Analysis by Tools (Automated Static Analysis) <p>Case Study on Preparation of Inspection Checklist</p>		
4	<ul style="list-style-type: none"> 4. Dynamic Testing <ul style="list-style-type: none"> 4.1. Test Design Techniques-Black Box Testing Techniques: <ul style="list-style-type: none"> 4.1.1. Equivalence Partitioning 4.1.2. Boundary Value Analysis 4.1.3. Decision Table Testing 4.1.4. State Transition Testing 4.2. Test Design Techniques -White Box Testing Techniques (coverage based and fault-based) <ul style="list-style-type: none"> 4.2.1. Statement coverage 4.2.2. Branch & Decision coverage 4.2.3. Path coverage 4.2.4. McCabe’s Cyclomatic Complexity Metric (Computation of Cyclomatic Complexity to be covered) 4.2.5. Data Flow based Testing 4.2.6. Mutation Testing 4.3. Test Design Techniques -Experience based techniques: <ul style="list-style-type: none"> 4.3.1. Error Guessing 4.3.2. Exploratory Testing <p>Problems based on Black Box and White Box Testing Techniques to be covered</p>	15	7
5	<ul style="list-style-type: none"> 5. Test Management <ul style="list-style-type: none"> 5.1. Test Organization- Roles & Skills of Tester, Test Lead, Test Manager 5.2. Test Planning- Test Plan as per IEEE 829 STANDARD TEST PLAN TEMPLATE 5.3. Test Process Monitoring & Control <ul style="list-style-type: none"> 5.3.1. Test Monitoring through -Test Log (IEEE 829: TEST LOG TEMPLATE to be discussed) and Defect Density 5.3.2. Reporting Test Status (IEEE 829: TEST SUMMARY REPORT TEMPLATE to be discussed) 5.3.3. Test Control 5.4. Requirement Traceability Matrix (Horizontal & Vertical), Test Scenario, Test Suite, Test Cases (both Positive & Negative Test Cases, as per IEEE 829: 	25	10

	<p>TEST CASE SPECIFICATION TEMPLATE)</p> <p>5.5. Configuration Management- Configuration Management support for Testing</p> <p>5.6. Risk and Testing- Project Risk & Product Risk</p> <p>5.7. Incident/ Defect Management</p> <p>5.7.1. Defect Life Cycle</p> <p>5.7.2. Defect/ Incident Report (IEEE 829: TEST INCIDENT REPORT TEMPLATE to be discussed)</p> <p>Case Study on Test Plan for applications and Case study on Test Cases for different features within applications</p> <p>Extra Reading: Version Control Tool: SVN, Defect Tracking Tool: Bugzilla, JIRA</p>		
6	<p>6. Tool Support for Testing</p> <p>6.1. Types of Test tools –CAST (only type & their purpose should be covered)</p> <p>6.2. Effective Use of Tools: Potential Benefits and Risks</p> <p>6.3. Introduction of a tool into an organization</p> <p>6.4. Testing tools</p> <p>6.4.1. Selenium -WebDriver and Test NG</p> <p>6.4.2. Appium</p> <p>6.4.3. JMeter</p> <p>Extra Reading: Functional Test Automation Tools: Quick Test Professional (QTP), IBM Rational Robot, Non-functional Test Automation Tools: Load Runner, Test Management Tools: Test Director, Test Link, Bugzilla, Redmine, API Testing Tool: Postman, ETL Testing Tool, Big Data Testing Tool, AI based Testing Tool: Test Craft, UI Testing, Website Testing: TestRail</p>	15	9
Total:		100	45

List of Practicals (if any)

Practicals based on Selenium

1. Focusses on how to invoke the Firefox browser, maximizing the window, navigate commands, etc.

Scenario:

- 1.1. Open the Firefox browser.
- 1.2. Maximize the browser window.
- 1.3. Navigate to a particular URL (let say, SPPU website)
"http://www.unipune.ac.in/".

- 1.4. Write a method to print PASS if the title of the page matches with the page title else FAIL. (If you are familiar with TestNG or JUnit use assert statement like `assert.assertEquals(actual, expected)` to give a verdict of the pass or fail status.
 - 1.5. Navigate to another URL (let say, the Facebook page)
"https://www.facebook.com"
 - 1.6. Navigate back to the QA Tech Hub website.
 - 1.7. Print the URL of the current page.
 - 1.8. Navigate forward.
 - 1.9. Reload the page.
 - 1.10. Close the Browser.
2. Focusses on interacting with form elements like textbox, buttons, radio buttons and drop-down (Facebook Signup)

Scenario:

- 2.1. Open a browser.
- 2.2. Navigate to "http://www.fb.com"
- 2.3. Verify that the page is redirected to "http://www.facebook.com", by getting the current URL. (use if-else condition to verify this condition or use `Assert.assertEquals()` in case you are familiar with TestNG or JUnit)
- 2.4. Verify that there is a "Create an account" section on the page.
- 2.5. Fill in the text boxes: First Name, Surname, Mobile Number or email address, "Re-enter mobile number", new password.
- 2.6. Update the date of birth in the drop-down.
- 2.7. Select gender.
- 2.8. Click on "Create an account".
- 2.9. Verify that the account is created successfully.

3. Focusses on working with links and `getAttribute()` method.

Scenario:

- 3.1. Open a Browser (write the generic code such that by changing the parameter browser can be changed.)
- 3.2. Navigate to <https://flipkart.com> website.
- 3.3. Write a method to find the count (number of) links on the homepage of Flipkart.
- 3.4. Write another method to print link text and URLs of all the links on the page of Flipkart.

4. Focusses on Frame Handling, mouse over operations (Login to an application)

Scenario:

- 4.1. Open any browser of your choice, for example, Chrome Browser.
- 4.2. Navigate to Snapdeal site (<http://www.snapdeal.com>)
- 4.3. Move to Sign In Button and hold
- 4.4. Move to the Sign In button and click.
- 4.5. Enter valid Email Id and click continue.
- 4.6. Enter the valid password and click LOGIN.
- 4.7. Verify that the user is logged in successfully.

5. Focuses on writing dynamic xpath (Login to Gmail Account and sending a mail from Gmail)

Scenario:

- 5.1. Open any browser of your choice, say Mozilla Firefox
- 5.2. Navigate to <https://www.gmail.com>
- 5.3. Enter a valid Email Id or Phone Number
- 5.4. Click Next button
- 5.5. Enter Password and click "Sign in" button.
- 5.6. Verify that Gmail is logged in successfully.
- 5.7. Click compose button and verify that a new mail window is opened.
- 5.8. Enter an Email Id
- 5.9. Enter some subject, say "Test Mail"
- 5.10. Enter some text in body
- 5.11. Click send button.

Course References:

Recommended Books:

Text Books:

1. Foundations of Software Testing by Rex black, Erik Van Veenendaal, Dorothy Graham (2012)-Cengage Learning: London UK, 3rd Edition
2. Software Engineering by Sommerville-Pearson,8thEdition
3. Daniel Galin, "Software Quality Assurance: From Theory to Implementation", Pearson Addison-Wesley, 2012. 2.
4. Effective Methods for Software Testing by William Perry- Wiley Pub, 3rd Edition.

Reference Books:

1. Roger S. Pressman, "Software Engineering-A Practitioner's Approach", McGraw Hill pub.2010
2. Software Testing in Real World Edward Kit- Pearson Pub
3. Software Testing Techniques by Boris Beizer-DreamTech Pub,2nd Edition
4. Software Testing by Ron Patton, TechMedia Pub.
5. Introducing Software by Testing Louise Tamres
6. Fundamentals of Software Engineering –Rajib Mall, 3rd Edition
7. Allen Gilles "Software quality: Theory and management", International Thomson, Computer press 1997.
8. Software Testing Principles Techniques and Tools by Milind. G. Limaye- Tata McGraw Hill Pub.
9. Stephen H. Kan, "Metrics and models in software quality Engineering", Addison –Wesley 2003.

Web Reference:

1. www.istqb.org
2. <https://www.seleniumhq.org/>
3. <https://www.softwaretestingmaterial.com/selenium-tutorial/>
4. <https://www.toolsqa.com/selenium-tutorial/>
5. www.guru99.com/software-testing.html
6. www.guru99.com/selenium-tutorial.html
7. www.guru99.com/mobile-testing.html
8. <https://www.softwaretestinghelp.com/appium-tutorial-for-beginners/>
9. www.professionalqa.com
10. www.resources.sei.cmu.edu/library
11. www.iist.org

Course Code: IT-34

Course Name: Knowledge Representation and Artificial Intelligence: ML, DL

Credit Scheme			Evaluation Scheme				
Lecture	Practical	Credit	Internal			External	Total
			Written	Practical	Tutorial		
3 Hrs./Week	-	3	25	--	--	50	75

Course Description:

Course Objectives:

Course Outcomes:

Student will be able to

CO1: Understand basic building block of Artificial Intelligence and Knowledge Representation.

(Understand)

CO2: Apply Propositional Logic for knowledge representation. (Apply)

CO3: Design various models based on Machine Learning methodology (Apply)

CO4: Design various models based on Deep Learning methodology (Apply)

CO5: Understand various hardware and software aspect used for AI and its application.

(Understand)

Course Structure:

Unit No.	Topics Details	Weightage in %	No of Sessions
1	1. Artificial Intelligence and Knowledge representation 1.1. Introduction to Artificial Intelligence and its evolution. 1.2. What is Intelligence and Artificial Intelligence 1.3. How AI is affecting on real life? 1.4. Different branches of AI 1.5. Limitations of AI 1.6. Need of knowledge Representation 1.7. Knowledge Representation and Mapping schemes 1.8. Properties of good knowledge-based system 1.9. Types of knowledge 1.10. Knowledge Representation issues 1.11. AND-OR Graph 1.12. The Wumpus World	15	3

2	<p>2. Propositional Logic</p> <p>2.1. Mathematical Logic and Inference</p> <p>2.2. First Order Logic: Syntax and Semantic, Inference in FOL</p> <p>2.3. Forward chaining, backward Chaining</p> <p>2.4. Language</p> <p>2.5. Semantics and Reasoning</p> <p>2.6. Syntax and Truth Values,</p> <p>2.7. Valid Arguments and Proof Systems</p> <p>2.8. Rules of Inference and Natural Deduction</p> <p>2.9. Axiomatic Systems and Hilbert Style Proofs</p> <p>2.10. The Tableau Method</p> <p>2.11. The Resolution Refutation Method</p> <p>Problems based on FOPL</p>	15	8
3	<p>3. Machine Learning</p> <p>3.1. History of Machine Learning</p> <p>3.2. Machine Learning Vs Statistical Learning</p> <p>3.3. 3Type of Machine Learning - Supervised, Unsupervised Learning, Reinforcement Learning</p> <p>3.3.1. Linear Regression</p> <p>3.3.2. Logistic Regression</p> <p>3.3.3. Support Vector Machines</p> <p>3.3.4. Random Forest</p> <p>3.3.5. Naïve Bayes Classification</p> <p>3.3.6. Ordinary Least Square Regression</p> <p>3.3.7. K-means</p> <p>3.4. Essentials of Data and its analysis</p> <p>3.5. Framework of Data Analysis</p> <p>Extra Reading: Forms of Learning, Inductive Learning, Ensemble Methods, Apriori Algorithm, Principal Component Analysis, Singular Value Decomposition, Reinforcement or Semi-Supervised Machine Learning, Independent Component Analysis</p>	30	15
4	<p>4. Deep Learning</p> <p>4.1. Fundamentals of Deep networks and Defining Deep learning</p> <p>4.2. Deep learning Problem types</p> <p>4.2.1. ANN</p> <p>4.2.2. CNN</p> <p>4.2.3. RNN</p> <p>4.2.4. GAN</p> <p>4.2.5. NLP</p> <p>4.3. Building blocks of Deep learning</p> <p>4.4. Classification and Detection</p>	30	15

	Algorithms should be taught using Python Library – Pytorch Extra Reading: DNN, Transfer Learning, Architectural Principals of Deep networks – AlexNet, VGG 16, Inception, MobileNet		
5	5. Hardware and Software for AI 5.1. Data Center 5.2. Gateway edge computing 5.3. Keyprocessor for AI 5.4. CPU and GPU 5.5. Field Programmable Gate Array (FPGA)	5	2
6	6. Application of AI 6.1. Robotics Process Automation – Chatbot 6.2. NLP 6.3. Image Processing 6.4. Speech Recognition	5	2
Total:		100	45

Course References:

Recommended Books:

Reference Books:

1. Artificial Intelligence, 3rd Edition, Elaine Rich, Kevin Knight, S.B. Nair - Tata McGraw Hill.
2. Artificial Intelligence: A Modern Approach Textbook by Peter Norvig and Stuart J. Russell
3. Artificial Intelligence by Patrick Henry Winston - Addison-Wesley, Third Edition.
4. Artificial Intelligence and Intelligent Systems by N.P.Padhy - Oxford University Press.
5. Data Mining practical Machine Learning Tools and Techniques by Ian H. Witten Eibe Frank Mark Hall - Elsevier publication
6. Python Machine Learning and Deep Learning with Python Scikit-learn, and TensorFlow 2, 3rd Edition by Sebastian Raschka, Vahid Mirjalil
7. Machine Learning by Tom M Mitchell – TMGH Publication
8. Machine Learning using Python by Manaranjan Pradhan and U. Dinesh Kumar – WILEY Publication
9. Machine Learning for Big Data – Hands on for Developers and Technical Professionals by Jason Bell – WILEY Publication

Course Code: IT-35
Course Name: Cloud Computing

Credit Scheme			Evaluation Scheme				
Lecture	Practical	Credit	Internal			External	Total
			Written	Practical	Tutorial		
3 Hrs./Week	-	3	10	10	5	50	75

Course Description:

Course Objectives:

1. To introduce the fundamentals of cloud computing, its technologies, Challenges and Applications
2. To give Insights into the virtualization technologies and Architecture
3. To know the relationship between Cloud and SOA
4. To classify and evaluate Cloud Security Issues
5. To apply theory to practical knowledge through case Studies

Course Outcomes:

Student will be able to

CO1: Describe the concepts of Cloud Computing and its Service Models& Deployment Models.

(Understand)

CO2: Classify the types of Virtualization. (Understand)

CO3: Describe the Cloud Management and relate Cloud to SOA. (Understand)

CO4: Interpret Architecture and Pharrell Programing of Cloud Computing. (Apply)

CO5: Demonstrate practical implementation of Cloud computing. (Apply)

Course Structure:

Unit No.	Topics Details	Weightage in %	No of Sessions
1	1. Cloud Services and Cloud Models 1.1. Introduction to Cloud 1.2. Cloud Computing vs. Cluster Computing vs. Grid Computing 1.3. Introduction to Cloud Service Models 1.4. Characteristics, Advantages, Security 1.5. XAAS- Anything as a Service – Storage as a service, Network as a Service, Database as a Service etc. 1.6. IAAS, PAAS, SAAS characteristics, benefits and Applications 1.7. Comparison of SAAS, PASS and IAAS 1.8. Cloud Deployment Models-Public, Private, Hybrid	20	7

	<p>1.9. Cloud Platforms :</p> <p>1.9.1. Google Cloud Platform, 1.9.2. Microsoft Azure 1.9.3. SalesForce, 1.9.4. AWS.</p> <p>Extra Reading: Offerings of AWS</p>		
2	<p>2. Virtualization</p> <p>2.1. Introduction to Virtualization concept & Hypervisors 2.2. Types of Virtualization: Server, Storage and Network 2.3. Pros and Cons of Virtualization 2.4. Machine Image, Virtual Machine (VM) 2.5. Technology Examples 2.5.1. Xen: Para virtualization 2.5.2. VMware: Full Virtualization 2.5.3. Open Source Virtualization Manager</p>	15	8
3	<p>3. SOA & Cloud Management</p> <p>3.1. Definition of Service Oriented Architecture 3.2. Basic concepts of SOA 3.3. Web Services: SOAP and REST 3.4. Cloud APIs (RESTful) 3.5. Relating SOA and Cloud Computing. 3.6. Cloud Availability 3.7. Cloud Governance 3.8. Service Level Agreement</p> <p>Extra Reading: Pricing Model: Usage Reporting, billing and metering (AWS), Cloud Statistics</p>	15	8
4	<p>4. Multi Core Architecture</p> <p>4.1. Cloud Computing Architecture 4.2. Multi Core Architecture 4.3. Multi Cloud Environment 4.4. Parallel Programming 4.5. Parallel Processing 4.6. Edge Computing Concepts</p>	15	6
5	<p>5. Moving Applications to the Cloud</p> <p>5.1. Cloud Migration Strategies and Process 5.2. Issues in Inter Cloud 5.3. Applications in the Clouds 5.4. Cloud Service Attributes 5.5. Cloud Bursting. 5.6. Data Migration in Cloud 5.7. 5Quality of Services in cloud Computing</p> <p>Extra Reading: Six R for Cloud Migration</p>	15	6

6	6. Cloud Security & Implementation of Cloud 6.1. Cloud Security Fundamentals 6.2. Cloud Security Architecture 6.3. Cloud Computing Security Challenges 6.4. Privacy and Security in Cloud 6.5. Identity Management and Access control 6.6. Demonstrate the commercial cloud computing Infrastructures 6.7. Introduction to Dockers Container 6.8. Case Study's based on Cloud Computing Concepts.	20	10
Total:		100	45

List of Practicals (if any)

1. Create an Account to Cloud Service Provider (AWS, AZURE, Google Cloud, etc.)
2. Create an Instance on Cloud
3. Provide Access Control and Permission to Users
4. Execute the Web Page on Cloud
5. Provide Security Mechanism to your instance.

Course References:

Recommended Books:

Reference Books:

1. Cloud Computing Bible by Barrie Sosinsky, Wiley India Pvt. Ltd,
2. Cloud Computing : Automating the Virtualized Data Center
3. Cloud Computing by Dr. Kumar Saurabh ,Wiley–India
4. Cloud computing: A practical approach by Anthony T. Velte, Tata McGraw-Hill
5. Cloud Computing Concepts, Technology & Architecture by Thomas Erl, Zaigham Mahmood, and Ricardo Puttin
6. Mastering Cloud Computing by Rajkumar Buyya, Christian Vecchiola, S.Thamarai Selvi - McGraw Hill Education (India) Private Limited,
7. Cloud Computing Web –Based Applications that change the way you work and Collaborate Online by Michael Miller, Pearson
8. Cloud Computing for Dummies by Judith Hurwitz, Robin Bloor, Marcia Kaufman, FernHalper

Web Reference:

1. <http://www.cloudcomputingpatterns.org/>
2. <http://whatiscloud.com>
3. www.w3schools.com

Course Code: IT-31L
Course Name: Practicals

Credit Scheme			Evaluation Scheme				
Lecture	Practical	Credit	Internal			External	Total
			Written	Practical	Tutorial		
-	10 Hrs./Week	5	-	75	-	50	125

Course Description:

This Practical course contains 2 sections. –

1. List of Practicals – Mobile Application Development
2. List of Practicals – KR an AI, ML, DL

Course Outcomes:

Student will be able to

- CO1: Develop mobile application. (Apply)
- CO2: Develop ML, DL models using Python (Apply)

Course Structure:

Suggestive List of Practicals

Mobile Application Development

1. Demonstrate different Layouts with different views in android Layouts- ConstraintLayout, RelativeLayout, TableLayout Views- Button, TextView, EditText, WebView, CheckBox, RadioButton, ToggleButton, ImageButton, RatingBar, ProgressBar, SeekBar, VideoView, DatePicker, CalendarView, Spinner
2. Write an android code to make phone call using Intent
3. Write an android code to turn ON/OFF Bluetooth
4. Write an android code to turn ON /OFF the Wi-Fi
5. Design android application for login activity. Write android code to check login credentials with username = "mca" and password = "android". Display appropriate toast message to the user.
6. Create a fragment that has its own UI and enable your activities to communicate with fragments.
7. Demonstrate Array Adapter using List View to display list of fruits.
8. Write an application to demonstrate Alert Dialog Box in android
9. Demonstrate Options Menu, Context Menu and Popup Menu in android
10. Write an application to produce Notification

11. Write an android application using SQLite to create table and perform CRUD operations (Example. COURSE table (ID, Name, Duration, Description), perform ADD, UPDATE, DELETE and READ operations)
12. Create an Android app, powered by Firebase Realtime database that supports: Adding Data to Firebase Realtime database, Retrieving Data from Firebase and Deleting data from firebase data.
13. Demonstrate WebView to display the web pages in an android application.
14. Write an android app to write JSON data into a file and read JSON data from created file.
15. Write an application to display a PDF as an image in React app using URL
16. Develop simple flutter application to open a browser using Android SDK

KR an AI, ML, DL

1. Find the correlation matrix.
2. Plot the correlation plot on dataset and visualize giving an overview of relationships among data on iris data.
3. Analysis of covariance: variance (ANOVA), if data have categorical variables on iris data.
4. Apply linear regression Model techniques to predict the data on any dataset.
5. Apply logical regression Model techniques to predict the data on any dataset.
6. Clustering algorithms for unsupervised classification.
7. Association algorithms for supervised classification on any dataset
8. Developing and implementing Decision Tree model on the dataset
9. Bayesian classification on any dataset.
10. SVM classification on any dataset
11. Text Mining algorithms on unstructured dataset
12. Plot the cluster data using python visualizations.
13. Creating & Visualizing Neural Network for the given data. (Use python)
14. Recognize optical character using ANN.
15. Write a program to implement CNN
16. Write a program to implement RNN
17. Write a program to implement GAN
18. Web scraping experiments (by using tools)

Course Code: ITC31

Course Name: Mini Project

Credit Scheme			Evaluation Scheme				
Lecture	Practical	Credit	Internal			External	Total
			Written	Practical	Tutorial		
-	10 Hrs./Week	5	-	75	-	50	125

Course Description:

A mini project is an assignment that the student needs to complete at the end of every semester to strengthen the understanding of fundamentals through effective application of the subjects learnt.

Course Outcomes:

Student will be able to

CO1: Create working project using tools and techniques learnt in this semester
(Create)

Course Structure:

Guidelines for Mini Project

1. Students are expected to undertake one mini project starting from first semester till third semester.
2. The student may take up the mini project in first semester based on the courses learnt in that semester and for every next semester the mini project may be based on the courses learnt in the current semester along with all the subjects learnt in earlier semesters.
3. The student may take up the project individually or in group. However, if project is done in group, each student must be given a responsibility for distinct modules.
4. Selected project/module must have relevant scope as per the marks assigned and must be carried out in the Institute.
5. Internal guide should monitor and evaluate the progress of the project on individual basis through handwritten workbook (Project Diary) maintained by students containing various project milestones with learnings and remarks from internal guide for concurrent evaluation.
6. The Project Synopsis should contain an Introduction to Project clearly stating the project scope in detail justifying enough scope for 125 marks. The project work will carry 75 marks for internal assessment and 50 marks for external assessment.
7. Students are expected to show working demo of the project during final evaluation.
- 8. Students are expected to upload mini-project on GITHUB as project repository of the institution.**
9. Students are expected to submit the soft copy of mini project report as a part of final submission.
10. The project will be assessed internally as well as externally by the examiners appointed by University. University may appoint Industry Experts as an external examiner

Savitribai Phule Pune University, Pune

Faculty of Commerce and Management

Master of Computer Applications (MCA)

Programme Curriculum
(2020-2022)

Semester IV

Course Code: IT-41

Course Name: DevOps

Credit Scheme			Evaluation Scheme				
Lecture	Practical	Credit	Internal			External	Total
			Written	Practical	Tutorial		
3 Hrs./Week	-	3	25	-	-	50	75

Course Description:

Course Objectives:

Course Outcomes:

Student will be able to

CO1: describe the evolution of technology & timeline (Understand)

CO2: explain Introduction to various Devops platforms (Remember)

CO3: demonstrate the building components / blocks of Devops and gain an insight of the Devops Architecture. (Understand)

CO4: apply the knowledge gain about Devops approach across various domains (Apply)

CO5: build DevOps application (Apply)

Course Structure:

Unit No.	Topics Details	Weightage in %	No of Sessions
1	1. Introduction to DevOps. 1.1. Define Devops 1.2. What is Devops 1.3. SDLC models, Lean, ITIL, Agile 1.4. Why Devops? 1.5. History of Devops 1.6. Devops Stakeholders 1.7. Devops Goals 1.8. Important terminology 1.9. Devops perspective 1.10. DevOps and Agile 1.11. DevOps Tools 1.12. Configuration management 1.13. Continuous Integration and Deployment 1.14. Linux OS Introduction 1.15. Importance of Linux in DevOps 1.16. Linux Basic Command Utilities 1.17. Linux Administration 1.18. Environment Variables 1.19. Networking 1.20. Linux Server Installation 1.21. RPM and YUM Installation	10	4
2	2. Version Control-GIT 2.1. Introduction to GIT 2.2. What is Git 2.3. About Version Control System and Types 2.4. Difference between CVCS and DVCS 2.5. A short history of GIT 2.6. GIT Basics 2.7. GIT Command Line 2.8. Installing Git 2.9. Installing on Linux 2.10. Installing on Windows 2.11. Initial setup 2.12. Git Essentials 2.13. Creating repository 2.14. Cloning, check-in and committing 2.15. Fetch pull and remote 2.16. Branching 2.17. Creating the Branches, switching the branches, merging 2.18. The branches.	15	3

3	<p>3. Chef for configuration management</p> <p>3.1. Overview of Chef; Common Chef Terminology (Server, Workstation, Client, Repository Etc.) Servers and Nodes Chef Configuration Concepts.</p> <p>3.2. Workstation Setup: How to configure knife Execute some commands to test connection between knife and workstation.</p> <p>3.3. Organization Setup: Create organization; Add yourself and node to organization.</p> <p>3.4. Test Node Setup: Create a server and add to organization, check node details using knife.</p> <p>3.5. Node Objects and Search: How to Add Run list to Node Check node Details.</p> <p>3.6. Environments: How to create Environments, Add servers to environments.</p> <p>3.7. Roles: Create roles, Add Roles to organization.</p> <p>3.8. Attributes: Understanding of Attributes, Creating Custom Attributes, Defining in Cookbooks.</p> <p>3.9. Data bags: Understanding the data bags, Creating and managing the Data bags, Creating the data bags using CLI and Chef Console, Sample Data bags for Creating Users.</p>	25	13
4	<p>5. Build tool- Maven</p> <p>5.1. Maven Installation</p> <p>5.2. Maven Build requirements</p> <p>5.3. Maven POM Builds (pom.xml)</p> <p>5.4. Maven Build Life Cycle</p> <p>5.5. Maven Local Repository (.m2)</p> <p>5.6. Maven Global Repository</p> <p>5.7. Group ID, Artifact ID, Snapshot</p> <p>5.8. Maven Dependencies</p> <p>5.9. Maven Plugins</p>	20	10
4	<p>4. Docker– Containers & Build tool- Maven</p> <p>4.1. Introduction: What is a Docker, Use case of Docker, Platforms for Docker, Dockers vs. Virtualization</p> <p>4.2. Architecture: Docker Architecture., Understanding the Docker components</p> <p>4.3. Installation: Installing Docker on Linux. Understanding Installation of Docker on windows. Some Docker commands. Provisioning.</p> <p>4.4. Docker Hub.: Downloading Docker images. Uploading the images in Docker Registry and AWS ECS, Understanding the containers, Running commands in container. Running multiple containers.</p> <p>4.5. Custom images: Creating a custom image. Running a container from the custom image. Publishing the custom image.</p>	30	15

	4.6. Docker Networking: Accessing containers, linking containers, Exposing container ports, Container Routing.		
	Total:	100	45

Course References:

Reference Books:

1. DevOps for Developers: Michael Hüttermann
2. DevOps: A Software Architect's Perspective: Ingo M. Weber, Len Bass, and Liming Zhu
3. Building a DevOps Culture: Jennifer Davis, Katherine Daniels. Publisher: O'Reilly
4. Practical DevOps: Joakim Veronal
5. DevOps for Dummies: Gene Kim, Kevin Behr, George, Publisher: John Wiley & Sons

Web Reference:

1. <https://devops.com/>
2. <https://devopsinstitute.com/>
3. <https://aws.amazon.com/devops/>
4. <https://www.guru99.com/devops-tutorial.html>
5. <https://www.edureka.co/blog/maven-tutorial/>
6. <https://www.chef.io/configuration-management/>
7. <https://www.edureka.co/blog/devops-tutorial>

Course Code: BM-41
Course Name: PPM and OB

Credit Scheme			Evaluation Scheme				
Lecture	Practical	Credit	Internal			External	Total
			Written	Practical	Tutorial		
3 Hrs./Week	-	3	20	-	5	50	75

Course Description:

Course Objectives:

1. This course aims to improve students understanding of Management & human behavior in organization and the ability to lead people to achieve more effectively toward increased organizational performance.

Course Outcomes:

Student will be able to

- CO1: Describe and analyze the interactions between multiple aspects of management. (Understand)
- CO 2: Analyze the role of planning and decision making in Organization (Analyze)
- CO 3: Justify the role of leadership qualities, Motivation and Team Building. (Analyze)
- CO 4: Analyze stress management and conflict management (Analyze)
- CO 5: Describe Personality and Individual Behavior (Understand)

Course Structure:

Unit No.	Topics Details	Weightage in %	No of Sessions
1	1. Management: 1.1. Meaning and Definition 1.2. The need, scope and process of Management 1.3. Managerial levels/Hierarchy 1.4. Managerial functions: Planning, Organizing, Staffing Directing, Controlling 1.5. Types of managers & its Skill: Functional, Specialize, Generalize 1.6. Social responsibility of management	10	4
2	2. Nature & Development of Management Thought: 2.1. Historical perspective 2.2. Evolution of Management: Introduction to Scientific Management by Taylor, Administrative Management by Fayol, Contribution of Peter Drucker 2.3. System approach-with reference to management, organization and MIS 2.4. Contingency approach	10	4

3	<p>3. Decision making:</p> <p>3.1. Introduction</p> <p>3.2. Decision making environment- Decision making under certainty, under uncertainty, under risk</p> <p>3.3. Types of Decision, decision making processes & Tools</p> <p>3.4. Individual Vs Group decision making</p> <p>3.5. Herbert Simon's Model & Principle of Rationality</p> <p><u>Note: Case studies should be covered on this topic</u></p>	10	4
4	<p>4. Organization, Organizational Behavior & Organizational Culture:</p> <p>4.1. Definition and Need for Organization</p> <p>4.2. Introduction to OB, Organizing Process</p> <p>4.3. Organizational structure (Functional organization, Product Organization, Territorial Organization)</p> <p>4.4. Introduction- Development and Levels of Organizational Culture</p> <p>4.5. Types of Corporate Culture</p>	10	4
5	<p>5. Motivation and Leadership:</p> <p>5.1. Concept of Motivation, Benefits to organization and Manager</p> <p>5.2. Maslow's need Hierarchy theory</p> <p>5.3. Herzberg's Motivation- Hygiene Theory</p> <p>5.4. Theory X and Y, Theory Z</p> <p>5.5. Definition, Nature, Qualities of Leader, Leader V/s Manager</p> <p>5.6. Leadership Styles (Autocratic, Participative, Laissez faire or subordinate-centered, Bureaucratic leadership, Transformational leadership, Transactional leadership)</p>	15	7
6	<p>6. Team Building</p> <p>6.1. Concept of Team, Nature, Benefits from team,</p> <p>6.2. Types of Teams</p> <p>6.3. Creating Effective Teams, Turning Individuals into Team Player.</p> <p><u>Note: Case studies should be covered on this topic</u></p>	15	10
7	<p>7. Stress Management and Conflict management:</p> <p>7.1. Work stress: Meaning of stress, Stressors, Sources of Stress, Types of stress</p> <p>7.2. Stress Management strategies</p> <p>7.3. Concept of Conflict, Functional versus Dysfunctional Conflict</p> <p>7.4. Five stage Conflict Process, Types of Conflict (Task Conflict, Relationship Conflict, Process Conflict, Personality Conflict, Intergroup Conflict)</p>	15	7

	7.5. Managing Conflict (Styles for Handling Dysfunctional Conflict, Third-Party Interventions)		
	Note: Case studies should be covered on this topic		
8	8. Personality and Understanding Individual Behavior: 8.1. Introduction, Definition of Personality - Determinants of Personality 8.2. Personality Theories -Personality and Organization 8.3. Personality Structure -Personality and Behavior 8.4. Ego State, Johari window- Transactional Analysis	15	5
	Total:	100	45

Course References:

Recommended Books:

Reference Books:

1. Principles and Practices of Management- Shejwalkar
2. Essential of management- 7th edition Koontz H & Weirich H TMH
3. Management Today Principles and Practices - Burton & Thakur
4. Mgmt. Principles and Functions - Ivancevich & Gibson, Donnelly
5. Organizational behavior Keith Davis
6. Organizational behavior Fred Luthans TMH 10th edition
7. Organizational behavior Dr. Ashwatthapa THI 7th edition
8. Organizational Behavior - Fred Luthans
9. Organizational Behavior - Stephen Robbins
10. Organizational Behavior - K. Aswathappa (8th revised edition)
11. Business psychology and Organizational Behavior – Eugene McKenna
12. Understanding Organizational Behavior - Udai Pareek
13. Organization Development – Wendell L. French and Cecil H. Bell Jr.

Course Code: ITC41
Course Name: Project

Credit Scheme			Evaluation Scheme				
Lecture	Practical	Credit	Internal			External	Total
			Written	Practical	Tutorial		
-	40 Hrs./Week	22	-	300	-	250	550

Course Description:

A project is an assignment that the student needs to complete at the end of semester IV to strengthen the understanding of fundamentals through effective application of the subjects learnt.

Course Outcomes:

Student will be able to

CO1: Create working project using tools and techniques learnt in the programme (Create)

Course Structure:

The project is an outcome of technical skills and domain knowledge acquired by the students during the program. Students demonstrate problem solving skills, analytical ability, logical thinking, communication skills and team work during the course of the project. The project can be implementation of a research work published in any reputed journal.

1. The project may be done individually or in groups. However, if project is done in groups, each student must be given a responsibility for distinct modules.
2. Selected project/module must have relevant scope as per the marks assigned and can be carried out in the Institute or outside with prior permission of the Institute.
3. Internal guide should monitor and evaluate the progress of the project on individual basis through handwritten workbook maintained by students containing various project milestones with learnings and remarks from internal guide for concurrent evaluation.
4. The Semester IV project should be having sufficient scope for 400 marks. The project work will carry 300 marks for internal assessment and 250 marks for external assessment.
5. Students are expected to show working demo of the project during final evaluation in semester IV.
6. The project report should be prepared as per the University prescribed format with all the chapters mentioned in project guidelines. And it should be printed on back-to-back pages (one copy) which should be signed by the internal guide and the Director of the Institute. A client (colleges, Non IT organization, and IT organization) certificate should be attached to prove the authenticity of the project work done.
7. The project will be assessed internally as well as externally by the examiners appointed by the institutions and University.

Type of Projects

1. Application Development

The students are advised to choose a project that involves window-based development, web-based development, mobile-based development, projects based on machine learning. Analysis and interpretation of any company specific data is not permitted.

2. Embedded Systems / IoT

A project should be developed and implemented for application specific system after thorough investigation of the latest development in the field of electronics or communication to facilitate their efficient operation. The Real Time Operating System (RTOS) or open source platform can be used to develop embedded applications such as Robotics, Microcontroller / Microprocessor based projects etc. An IOT project can be used to design products for reliability and security using simple electronics concepts and integrating with a cloud platform to get the data real-time and make some operational analysis. It has to use efficient algorithms for strong authentication and security protocols and disable non-essential services.

Few examples of IoT applications

Smart home, Health care applications, Smart waste management, Activity Tracker etc.

3. ETL Projects

Extract, transform, load (ETL) is the process of integrating the data from one or more sources. It is expected from the student that he should demonstrate the entire ETL process with reference to any domain like finance, banking, insurance, retail etc.

Data extraction consists of extracting the data from homogeneous or heterogeneous sources and transforming it into a proper format using data cleansing. The data can be finally loaded into a final target database such as operational data base, a data mart or data warehouse. This data can be further used for the purpose of querying and analyzing.

4. Research Projects

The research project will be able to demonstrate the skills of working scientifically, and through the project the students will be able to understand how to do a literature review, and how to appraise the literature to address questions. To explore an area of interest (develop some expertise and a deeper understanding of a topic). Understand the tools to critically and thoughtfully appraise problems which are faced every day; to learn communicate scientific research in verbal presentations and written form. As an example, the students can identify any problem, by observation or through survey to understand the problem in depth and propose the solution by applying the research methodology.

Project Guidelines:

1. Application Development Project

Chapter No		Details
1		Introduction
	1.1	Company Profile / Institute Profile / Client Profile
	1.2	Abstract
	1.3	Existing System and Need for System
	1.4	Scope of System
	1.5	Operating Environment - Hardware and Software
	1.6	Brief Description of Technology Used 1.6.1 Operating systems used (Windows or Unix) 1.6.2 RDBMS/No Sql used to build database (mysql/ oracle, Teradata, etc.)
2		Proposed System
	2.1	Study of Similar Systems (If required research paper can be included)
	2.2	Feasibility Study
	2.3	Objectives of Proposed System
	2.4	Users of System
3		Analysis and Design
	3.1	System Requirements (Functional and Non-Functional requirements)
	3.2	Entity Relationship Diagram (ERD)
	3.3	Table Structure
	3.4	Use Case Diagrams
	3.5	Class Diagram
	3.6	Activity Diagram
	3.7	Deployment Diagram
	3.8	Module Hierarchy Diagram
	3.9	Sample Input and Output Screens (Screens must have valid data. All reports must have at-least 5 valid records.)
4		Coding
	4.1	Algorithms
	4.2	Code snippets
5		Testing
	5.1	Test Strategy
	5.2	Unit Test Plan
	5.3	Acceptance Test Plan
	5.4	Test Case / Test Script
	5.5	Defect report / Test Log
6		Limitations of Proposed System
7		Proposed Enhancements
8		Conclusion

9		Bibliography
10		Publication / Competition certificates
11		Appendix – Cost sheet , Data sheet
12		User Manual (All screens with proper description/purpose Details about validations related to data to be entered.)

2. Embedded Systems / IoT Project

Chapter No		Details
1		Introduction
	1.1	Company Profile / Institute Profile / Client Profile
	1.2	Abstract
	1.3	Existing System and Need for System
	1.4	Scope of System
	1.5	Operating Environment - Hardware and Software
	1.6	Brief Description of Technology Used 1.6.1 Operating systems used (Windows or Unix) 1.6.2 Database (if applicable)
2		Proposed System
	2.1	Study of Similar Systems (If required research paper can be included)
	2.2	Feasibility Study
	2.3	Objectives of Proposed System
	2.4	Users of System
3		Analysis and Design
	3.1	Technical requirements – H/W , S/W
	3.2	System Architecture / Block Diagram
	3.3	System Hardware Details
	3.4	Pin Diagrams
	3.5	Interface diagrams
	3.6	Design Sequence
	3.7	System Software Details
	3.8	Process / System Flow chart
4		Coding
	4.1	Algorithms
	4.2	Code snippets (if applicable)
5		Testing
	5.1	Results & reports
	5.2	Test cases
	5.3	Acceptance Testing
	5.4	Test reports in IEEE format
6		Limitations of Proposed System
7		Proposed Enhancements

8		Conclusion
9		Bibliography
10		Publication / Competition certificates
11		Appendix – Cost sheet , Data sheet
12		User Manual (All screens with proper description/purpose Details about validations related to data to be entered.)

3. ETL Projects

Chapter No		Details
1		Introduction
	1.1	Company Profile / Institute Profile / Client Profile
	1.2	Existing System functionality (Source System for which the ANALYTICS is being developed)
	1.3	Business process understanding and specifications 1.3.1 Business Requirement Specifications: 1.3.1.1 The o/p from BR Analysis are BRS Business Requirement Specifications (Business specific Rules to be mentioned here from analysis point of view) 1.3.1.2 Identify the dimensions, required attributes, measures, filter conditions, adjustments for KPIs going to be used in the Target system and its availability in the Source System. If any gaps suggest remediation of gaps 1.3.2 Business Rules Collection 1.3.3 Identify the Key Performance Indicator (specified by client) 1.3.4 Establish the User Acceptance Criteria
	1.4	Scope of the project
	1.5	Operating Environment - Hardware & Software, Description of Tools / Technology to be used in the Target system 1.5.1.1 Operating systems used (Windows or Unix) 1.5.1.2 RDBMS/NoSql used to build database (mysql/ oracle, Teradata, etc.) 1.5.1.3 ETL tools used (Talend/Informatica, Datastage etc) 1.5.1.4 OLAP/ Data mining/ machine learning/ analytics tools used (Python/ Cognos, BO, etc.) 1.5.1.5 Data visualization tools (power BI / Tableau)
2		Proposed System
	2.1	Creating multiple ETL strategies - Specifying metadata details, identifying heterogeneous architectures, processes for I/O only for ETL, scrapping , identifying the volatilities in the channels , designing strategies in the context of the business and existing ERP
	2.2	Comparing them in the context of selected business system (as per the business requirements)
	2.3	Suggesting optimum solution (process)
3		Analysis and Design
	3.1	Use Case Diagram
	3.2	Activity diagram to demonstrate Process flow (execution of ETL process)

	3.3	Design of Target system (Elaborate the tiers of DW architecture in the Target System)
	3.4	Database schema / Table specifications of Target system
	3.5	Details of Source & Targets of mapping in the database
	3.6	Details of Load (Full/Incremental etc.)
	3.7	Design of ETL schema/strategy
4	4.1	Design of strategy for Visualization 4.1.1 Visualizations in support of comparison of performance of various ETL strategies 4.1.2 Data visualization using different techniques (if any)
5		Drawbacks and Limitations Proposed Enhancements
6		Conclusion

4. Research Projects

Research projects especially are designed to gain knowledge about some specified area and the deliverable is that knowledge gained, usually encapsulated in some form of report.

Students are expected to contribute something new to academic or practical knowledge in their research area—something original that is more than the accepted knowledge.

Completing a Research Project as part of your coursework is an opportunity to:

- learn to read and interpret other people’s research critically by doing your own. This gives you an insight into the effects of practical difficulties and theoretical debates on published research
- develop and apply the knowledge that you have learnt in 4 semesters of your curriculum.
- submit a paper for peer-reviewed publication. (If successful, this will give a boost to your c.v.) If you wish to enroll in a research degree such as PhD, a research project as part of your coursework will assist the committee evaluating your application in assessing whether you are ready to do independent research.

Research Index

1. Title page
2. Acknowledgements

You should acknowledge the assistance given to you by your supervisors, and any other person or organization that has helped you in the planning, conduct, analysis or reporting of your project.

3. Abstract

This is a synopsis of your study question, aims and objectives, background literature, methods, results, key conclusions and recommendations. This should be 250–300 words long and should be very clear and easy to follow.

4. Introduction

In this section of your report you introduce the subject, provide the background to the topic or problem, outline the study question (or problem or study hypothesis), and outline the aims and objectives of your study.

5. Literature review

This is a review of the literature on the topic or problem you are studying. It should include a review of any other studies or projects similar or relevant to yours, and perhaps a review of the literature on the method you have chosen if your project tests a new method of research or analysis.

6. Methods

This section includes the methodology of your research. It will cover such issues as:
In case of Computer Management Research :

- Study design
- Study population, sampling frame and numbers, sampling method
- survey design
- survey or data collection instruments
- protocol for obtaining data
- ethical issues and how they are addressed
- information letters, consent forms
- data management and analysis methods
- statistical analysis and tests
- In case of Computer Science Research:
 - Study design
 - System Architecture
 - Implementation
 - Experimental Implementation
 - Simulation
 - Data management and analysis methods
 - Analysis and testing

7. Results

In this section you present the results of your research. Tables, figures and graphs are an excellent means of presenting this sort of information. All tables, figures and graphs, should be numbered consecutively throughout the whole report, and labelled with a clear and concise descriptive title.

8. Discussion

In this section you interpret your results and discuss their implications, with reference to other published research. Any limitations in your research methodology should also be referred to here. Examiners expect you to acknowledge these limitations as an integral part of your evaluation of your project.

9. Conclusion

This section summarizes the key results and the conclusions that you can draw from these results. It also needs to reflect what your initial project aims and objectives were.

10. Recommendations

It is good research practice to make recommendations or to suggest directions for further research or actions as a result of your project findings.

11. References

This is a list of all the references and sources you used in your literature review, methodology and discussion. This includes books, journal articles, abstracts, conference and symposium papers, media articles, and any form of published literature or comment.

12. Appendices

This section may contain copies of any questionnaires if any or evaluation instruments used covering letters, participant information and ethics approvals, or additional explanations.

University of Pune
Revised Syllabus
Master of Business Administration
(MBA)
Incorporating
Choice Based Credit System and Grading System
**TWO YEAR FULL TIME FOUR SEMESTER
POST GRADUATE DEGREE PROGRAMME**
MBA I Year Curriculum Applicable w.e.f. AY 2013-14
MBA II Year Curriculum Applicable w.e.f. AY 2014-15

1. Title

Name of the Programme: Master of Business Administration (MBA).

Nature of the Programme: MBA is two year full time post-graduate degree programme.

2. Preamble: The revised curriculum for MBA is developed keeping in mind the *national priorities* and *international practices*. It also attempts to align the programme structure and course contents with student aspirations & recruiter expectations.

2.1 Need for Revision of the Curriculum: The MBA programme curriculum of the University of Pune was last revised in the AY 2008 and there was a need for revision of the curriculum in view of the dynamism in the industry practices, evolution in technology and the evolving expectations of key stakeholders viz. students, the industry and faculty members at large.

Specifically, the triggers for the comprehensive revamp of the curriculum are -

- a) **New Skills & Competencies desired due to dynamic business environment:** Jobs of today were perhaps not created about 5 years ago. This aspect has a direct linkage with contents and structure of syllabus across the *Knowledge, Skills and Attitude (KSA) dimensions*, which calls for frequent and meaningful updating of the curriculum.
- b) **Concerns expressed by the Industry:** The industry has expressed concerns about the need for improvement in the *communication skills, inter-personal skills, domain knowledge basics, business environment awareness, technology proficiency, and attitude* of the MBA graduates. *Newer and innovative evaluation methods* are necessary to address these concerns of the industry.
- c) **Application Orientation:** There is a pressing need to *imbibe application oriented thinking*, based on sound knowledge of management theories, principles and concepts. Management education needs to move out of the classrooms and instead focus on *group activity, field work, experiential learning, etc.* This can be achieved only through a radical change in the evaluation pattern and course delivery methodology.
- d) **Changing mindset of the Learner:** The profile of the students for the management programme, their learning styles and the outlook towards higher education has undergone a gradual transformation. The expectations of the students from the MBA programme have changed over the last decade.
- e) **Integrate a basket of skill sets:** B-Schools are expected to imbibe varied aspects of 'learning beyond the syllabus' through innovative curriculum design, contemporary syllabus, effective delivery and comprehensive evaluation.

Specifically the following skill sets are in focus:

- i. Reading & Listening Skills
- ii. Problem Definition & Problem Solving Skills
- iii. Application of Technology Tools
- iv. Mastery of Analytics (Quantitative Aspects)
- v. Sensitization to Cross-Functional skills
- vi. Sensitization to Cross-Cultural skills
- vii. Sensitization to Global perspectives
- viii. Peer-based Learning - Working in groups
- ix. Learning by application and doing – Experiential learning

2.2 MBA Programme Objectives: The MBA programme prepares a student for a career in diverse sectors of the industry-domestically and globally. The MBA programme facilitates learning in theory and practice of different functional areas of management and equips the students with an integrated approach to various functions of management. However, the demand for managerial skills is not limited to the industry. Managerial talent is much sought by the Government Sector, NGOs, non-corporate sector as well. Institutes, Faculty and Students need to move away from the excessive focus on industry and look at needs and demands of broader sections of the society.

Specifically the objectives of the MBA Programme are:

1. To equip the students with requisite knowledge, skills & right attitude necessary to provide effective leadership in a global environment.
2. To develop competent management professionals with strong ethical values, capable of assuming a pivotal role in various sectors of the Indian Economy & Society, aligned with the national priorities
3. To develop proactive thinking so as to perform effectively in the dynamic socio-economic and business ecosystem.

2.3 Highlights of the New Curriculum: The New Curriculum intends to add immense value to all stakeholders by effectively addressing their requirements in more than one way by:

1. Adoption of Choice Based Credit System (CBCS) and Grading System in line with National policies and International practices.
2. Enhancing *the brand value of the MBA programme of the University of Pune.*
3. Providing the much needed flexibility to individual Institutes to carve a niche for themselves.
4. Emphasizing the *centrality of the student and teacher-student relationship* in the learning process.
5. Focusing on '*Concurrent Evaluation*' i.e. continuous evaluation throughout the programme.
6. Empowering the Institutes through *cafeteria approach – by providing Generic Core, Subject Core, Generic Elective, and Subject Elective Courses.* This shall provide in-built flexibility in the curriculum to help the institutes to offer tailor made courses preferred by students, from a wider basket of courses.
7. Evaluating *all Half Credit Courses completely on Concurrent Evaluation* pattern.
8. Emphasizing *Experiential Learning* aspect through Half Credit Courses.
9. Supplementing traditional classroom teaching/learning with focus on *group activity, field work, experiential learning, self-study, projects, etc.*
10. Incorporating new specializations viz. Supply Chain Management (SCM), Rural & Agribusiness Management (RABM), Family Business Management (FBM), Technology Management (TM) – thereby providing wider choice to the students.
11. A thorough revamp of Systems & Operations Specializations to make them more meaningful and attractive to BCA, BCS, BE students.
12. Providing opportunity to students to choose courses from other electives to explore *cross-functional issues.*
13. Emphasizing on *Research, Inter-personal, Analytical, Cross-Cultural, Global aspects* of managerial careers throughout the curriculum.

3. Pattern: The Programme comprises of 4 Semesters and adopts the Choice Based Credit System (CBCS) and Grading System.

3.1 Choice Based Credit System: Choice Based Credit System (CBCS) offers wide ranging choice for students to opt for courses based on their aptitude and their career goals. CBCS works on the fundamental premise that students are mature individuals, capable of making their own decisions.

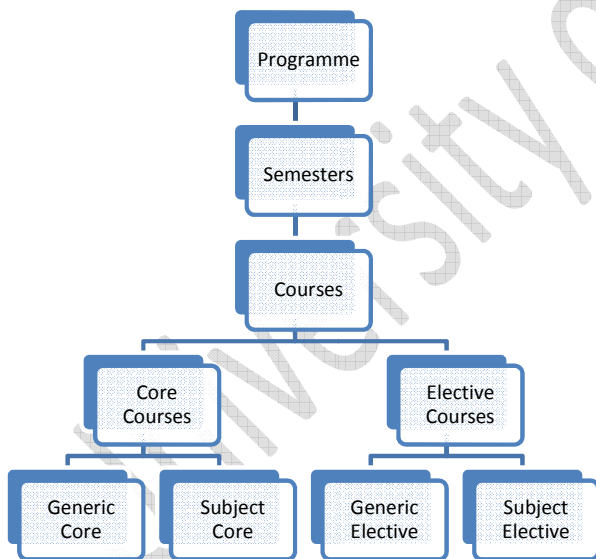
CBCS enables a student to obtain a degree by accumulating required number of credits prescribed for that degree. The number of credits earned by the student reflects the knowledge or skill acquired by him / her. Each course is assigned a fixed number of credits based on the contents to be learned & the expected effort of the student. The grade points earned for each course reflect the student's proficiency in that course. CBCS is a process of evolution of educational reforms that would yield the result in subsequent years and after a few cycles of its implementation.

3.1.1 Key features of CBCS:

1. **Enriching Learning Environment:** A student is provided with an academically rich, highly flexible learning system blended with abundant provision for skill practice and activity orientation that he/she could learn in depth without sacrificing his/her creativity. There is a definite movement away from the traditional lectures and written examination.

2. **Learn at your own pace:** A student can exercise the option to decide his/her own pace of learning- *slow, normal or accelerated plan*. Students can select courses according to their aptitude, tastes and preferences.
3. **Continuous Learning & Student Centric Concurrent Evaluation:** CBCS makes the learning process continuous and the evaluation process is not only made continuous but also made learner-centric. The evaluation is designed to recognize the capability and talent of a student.
4. **Active Student-Teacher Participation:** CBCS leads to quality education with active teacher-student participation. This provides avenues to meet student's scholastic needs and aspirations.
5. **Industry Institute Collaboration:** CBCS provides opportunities for meaningful collaboration with industry and foreign partners to foster innovation, by introduction of electives and half credit courses through the cafeteria approach. This will go a long way in capacity building of students and faculty.
6. **Interdisciplinary Curriculum:** Cutting edge developments generally occur at the interface of two or more discipline. Interdisciplinary approach enables integration of concepts, theories, techniques, and perspectives from two or more disciplines to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline.
7. **Employability Enhancement:** CBCS shall ensure that students enhance their skill/employability by taking up project work, entrepreneurship and vocational training.
8. **Faculty Expertise:** CBCS shall give the Institutes the much needed flexibility to make best use of the expertise of available faculty.

3.1.2 Programme Structure in Choice Based Credit System:



3.2 Time Schedule: An academic year is divided into two terms – I and II. Each term has one semester. Term I shall have Sem I and III, whereas Term II shall have Sem II and IV. In each semester, courses are offered in 15 teaching weeks and the remaining 5 weeks are to be utilized for conduct of examinations and evaluation purposes.

For students, each week has 40 working hours spread over 5/6 days a week consisting of lectures, tutorials, assignments, class participation, library work, special counseling, Sports, project work, field visit, youth welfare and social activities.

3.3 Course: A “Course” is a component of programme, i.e. in the new system; papers will be referred to as courses. Each course is identified by a unique course code. While designing curriculum, course can have defined weightages. These weightages are called credits.

Each course, in addition to having a syllabus, has learning objectives and learning outcomes. A course may be designed to comprise lectures/ tutorials/ laboratory work/ field work/ project work/vocational training /viva voce etc. or a combination of some of these.

3.3.1 Core Courses: The Curriculum comprises of Core Courses and Elective Courses.

Core courses are the foundation courses of management education. They are compulsory for all the students. Core courses are of two types: Generic Core & Subject Core.

Generic Core: This is the course which should compulsorily be studied by a candidate as a core requirement to complete the requirement of a degree in a said discipline of study. Therefore, Generic Core courses are mandatory and fundamental in nature. These courses cannot be substituted by any other courses. Such courses are also known as **Hard Core Courses**.

A Hard core course may be a Theory, Practical, Field based or Project Work based subject which is a compulsory component in the Programme Structure.

Subject Core: A Core course may be a Subject Core if there is a choice or an option for the candidate to choose from a broad category (grouping) of subjects (specializations). These are also known as **Soft Core Courses**.

Following Specializations shall be offered:

1. Marketing Management (MKT)
2. Financial Management (FIN)
3. Information Technology Management (IT)
4. Operations Management (OPE)
5. Human Resources Management (HR)
6. International Business Management (IB)
7. Supply Chain Management (SCM)
8. Rural & Agribusiness Management (RABM)
9. Family Business Management (FBM)
10. Technology Management (TM)

Students shall study 2 Full Credit Courses & 4 Half Credit Courses in Sem III and IV each for specialization courses i.e. a total of 12 specialization courses of which 4 are full credits and 8 are half credits.

- Generic Core courses in Sem I provide *foundations of management*.
- Generic Core courses in Sem II focus on *functional areas*.
- Generic Core courses in the Sem III and IV are *integrative* in nature along with the Subject Core subjects.

3.3.2 Elective Course: Elective course is a course which can be chosen from a pool of courses. It may be:

- a) Very Specialized or advanced course focusing on a specific aspect
- b) Supportive to the discipline of study
- c) Providing an extended scope
- d) Enabling an exposure to some other discipline/domain
- e) Nurturing candidate's proficiency/skill.

Generic Elective: An elective course which is common across disciplines / subjects is called a generic elective. ‘Generic Elective’ courses develop generic proficiencies amongst the students.

Subject Elective: A 'Discipline centric' elective is called 'Subject Elective.'

- Generic Elective courses, in Sem I and II facilitate self-development and skill building.
- Subject Elective courses, in the Sem III and IV are focused on a specialization.

Open Elective: A subject elective course chosen generally from an unrelated discipline/ subject, with an intention to seek cross-functional exposure is called an Open Elective. A Subject Elective offered in a discipline / subject may be treated as an Open Elective by other discipline / subject and vice versa.

Choice of Cross Functional Half Credit Courses (Subject Elective chosen as Open Elective): Out of the 8 half credit subject elective courses (to be taken collectively in Sem III and IV); a student may choose 2 half credit subject courses from another elective (i.e. other than his chosen elective). The student may exercise this choice either in Sem III and/or in Sem IV. The final say in this matter shall rest with the Director of the Institute.

Generic and Subject Electives will provide flexibility to each Institute to offer courses based on: -

- a) Intended positioning of the Institute
- b) Targeted Industry Linkages – sectoral requirements and networking at the Institute Level
- c) Student Composition – rural/urban, commerce/engineering/others, fresh/experienced, etc.
- d) Present & Future Faculty Competencies – generic and specialization areas
- e) Locational Aspects - rural/urban/ semi-urban

An Institute may offer varied combinations of Half Credit courses to various groups of students enrolled in a particular academic year / enrolled for a particular specialization based on student interests and competencies, faculty availability.

3.4 Pre-requisites for successful implementation of CBCS: The success of the CBCS also requires certain commitments from both the students and the teachers.

1. The student should be regular and punctual to his classes, studious in carrying out the assignments and should maintain consistency in his tempo of learning. He should make maximum use of the available library, internet and other facilities.
2. The teachers are expected to be alert and punctual and strictly adhere to the schedules of teaching, tests, seminars, evaluation and notification of results.
3. All teachers should notify the tentative schedule of teaching and tests of the entire semester, including the dates of tests, dates of score notification and all other schedules, which can be planned in advance.
4. The teachers are expected to adhere to unbiased and objective evaluation and marking of concurrent evaluation scores (internal examinations) which will not only maintain the confidence of the students, but, at the same time, ensure that merit is given due credit.
5. Transparency, objectivity and quality are the key factors that will sustain a good CBCS system.
6. **At the post-graduate level, and in a professional programme, the syllabus is to be looked upon as the bare minimum requirement to be fulfilled and sufficient emphasis shall be laid on contemporary aspects, going beyond the syllabus.**

3.5 Credits

Credit: The definition of 'credits' can be based on various parameters—such as the learning hours put in, learning outcomes and contact hours, the quantum of content/syllabus prescribed for the course.

The credit system requires that a student progresses in the academic programmes not in terms of time (years or semesters), but in terms of courses.

Each course is assigned a certain credit, depending on the estimated effort put in by a student. When the student passes that course, he/she earns the credits associated with that course.

In the Credit system the emphasis is on the **hours put in by the learner and not on the workload of the teacher**. Each credit can be visualized as a combination of **3 components viz. Lecture (L) + Tutorials (T) + Practical / Project Work (P) i.e. LTP Pattern**.

The effort of the learner for each Credit Point may be considered under two parts –

- a) One part consisting of the hours actually spent in class room / practical / field work instructions and
- b) The other part consisting of notional hours spent by the Learner in self-study, in the library, peer interactions, case study, writing of journals and assignments, projects etc. for the completion of that course.

Every course offered shall have three components associated with the teaching-learning process of the course, viz.

- a) Lecture – L : Classroom sessions delivered by faculty in an interactive mode
- b) Tutorial- T : Session consisting of participatory discussion/ self-study/ desk work/ brief seminar presentations by students and such other novel methods that make a student to absorb and assimilate more effectively the contents delivered in the Lecture sessions
- c) Practice - P: Practice session /Project Work consisting of Hands-on experience / Field Studies / Case studies that equip students to acquire the much required skill component.

In terms of credits, for a period of one semester of 15 weeks:

- a) every ONE hour session per week of L amounts to 1 credit per semester
- b) a minimum of TWO hours per week of T amounts to 1 credit per semester,
- c) a minimum of TWO hours per week of P amounts to 1 credit per semester,

The teaching / learning as well as evaluation are to be interpreted in a broader perspective as follows:

- a) Teaching – Learning Processes: Classroom sessions, Group Exercises, Seminars, Small Group Projects, Self-study, etc.
- b) Evaluation: Tutorials, Class Tests, Presentations, Field work, Assignments, Research papers, Term papers, etc.

A course shall have either or all the three components, i.e. a course may have only lecture component, or only practice component or a combination of any two or all the three components.

The total credits earned by a student at the end of the semester upon successfully completing a course are 'L + T + P'. The credit pattern of the course is indicated as L: T: P.

If a course is of 3 credits then the different credit distribution patterns in L:T: P format could be 3:0: 0, 1:2: 2, 2: 0: 2, 2: 2: 0, etc. In no instance the credits of a course can be greater than the number of hours (per week for 15 weeks) allotted to it.

Full Credit Course: A course with weightage of 3 credits is considered as a full course. (Except for Summer Internship Project which is a full credit course with 6 Credits.)

Half Credit Course: A course with weightage of 2 credits is considered as a half course.

The MBA programme is a combination of:

- a) Full Credit Courses (100 Marks each) : 3 Credits each
- b) Half Credit Courses (50 Marks each) : 2 Credits each

3.6 Adoption of Credit and Grading System

As per national policy and international practices, it is proposed to adopt the Credit and Grading System for the MBA programme w.e.f. AY 2013-14.

3.6.1 Rationale for adoption of the Credit and Grading System:

a) **Learner's Perspective:** The current practice of evaluation of student's performance at the end of a semester is flawed. The students are expected to express their understanding or mastery over the content included in their curriculum for a complete semester within a span of three hours and their efforts over the semester are often completely ignored. It also promotes to an unhealthy practice of cramming before the examinations and focusing on marks rather than on learning.

b) **Evaluation Perspective:** The present system of evaluation does not permit the flexibility to deploy multiple techniques of assessment in a valid and reliable way. Moreover, the current practice of awarding numerical marks for reporting the performance of learners suffers from several drawbacks and is a source of a variety of errors. Further, the problem gets compounded due to the variations in the marks awarded in different subjects. The 'raw score' obtained by the learner, is, therefore, not a reflection of his true ability.

In view of the above lacunae, it is desirable that the marking system used for the declaration of results is replaced by the grading system. The system of awarding grades provides a more realistic picture of learner's ability than the prevailing marking system. *Excellence in quality education can be achieved by evaluating the true ability of the learners with the help of continuous evaluation.*

3.6.2 Salient features of the grading system:

1. In this system, students (learners) are placed in ability bands that represent a range of scores. This ability range may be designated with alphabetical letters called as 'GRADE'.
2. Grading reflects an individual learner's performance in the form of a certain level of achievement.
3. The Grading system ensures natural classification in qualitative terms rather than quantitative terms since it expresses a range /band of scores to which a learner belongs such as O,A,B,C,D,E & F
4. Grades can be interpreted easily and directly and can be used to prepare an accurate 'profile' of a learner.
5. A properly introduced grading system not only provides for a comparison of the learners' performance but it also indicates the quality of performance with respect to the amount of efforts put in and the amount of knowledge acquired at the end of the course by the learners.

3.6.3 Basics of Credit and Grading System: Grading is a method of reporting the result of a learner's performance subsequent to his evaluation. It involves a set of alphabets which are clearly defined and designated and uniformly understood by all the stake holders.

Grading is carried out in a variety of ways. The classification of grades depends upon the reference point.

With 'Approach towards Grading' as the reference point, Grading may be classified as:

- a) **Direct grading:** When the performance exhibited by the examinees is assessed in qualitative terms and the impressions so obtained by the examiners are directly expressed in terms of letter grades, it is called, '*Direct Grading*'.
- b) **Indirect grading:** When the performance displayed by the examinees is first assessed in terms of marks and subsequently transformed into letter grades by using different modes, it is called, '*Indirect Grading*'.

With 'Standard of Judgment', as the reference point Grading may be classified as:

- a) **Absolute grading:** The method that is based on a predetermined standard which becomes a reference point for the learner's performance is called 'Absolute Grading'. This involves direct conversion of marks into grades irrespective of the distribution of marks in a subject.
- b) **Relative grading:** Relative Grading is popularly known as grading on the curve. The curve refers to the normal distribution curve or some symmetric variant of it. This method amounts to determining in advance approximately what percentage of learners can be expected to receive different grades, such as O,A,B,C,D,E,F. In this grading system the grade is not determined by the learner's performance but on the basis of group performance.

Absolute grading has several advantages such as –

- a) the procedure is simple and straightforward to use,
- b) each grade is distinctly understandable,
- c) the learner has the freedom to strive for the attainment of the highest possible grade and
- d) It enables the learners to know their strengths and weaknesses.

The few limitations in Absolute Grading method are that –

- a) The distribution of scores is taken at its face value regardless of the errors of measurement creeping in due to various types of subjectivity.
- b) Besides, the cut-offs of different categories are also arbitrarily decided.

It is proposed to use the **Indirect and Absolute Grading System for the MBA programme**, i.e. the assessment of individual Courses in the concerned examinations will be on the basis of marks, but the marks shall later be converted into Grades by a defined mechanism wherein the overall performance of the Learners can be reflected after considering the Credit Points for any given course. However, **the overall evaluation shall be designated in terms of Grade.**

3.7 Session Duration: Each teaching-learning, evaluation session shall be of 60 minutes. However, institutes shall have the flexibility to define their time slots in a manner as to use their faculty and infrastructure resources in the best possible way. Batch size for tutorials shall be 50% of the normal class size, subject to a minimum of 30 students.

3.8 Courses Offered: Institutes are free to offer only a *select number of specializations* from amongst the list provided by the University. Likewise, institutes may provide only a *sub-set of the generic electives, subject electives* as prescribed semester-wise in the Programme structure.

However, it shall be mandatory for the Institutes to provide all information relating to the specializations offered, generic electives, subject electives, their respective credits, evaluation pattern, etc. to all the students so as to enable them to make an informed choice. Such information should be hosted on the website/prospectus of the Institute in sufficient advance, prior to commencement of the classes. Other information such as the credits, the prerequisites, and syllabus shall also be hosted on the website of the institute.

3.9 Registration: *It is mandatory for every student, to register every semester, for the courses opted under CBCS system, for that semester.*

Such registration forms the basis for a student to undergo concurrent evaluation, online evaluation and end-semester examination. Application forms for University examinations are to be filled up based on the choices finalized during the registration process and submitted to the University along with the prescribed examination fee.

3.9.1 Registration Process:

- i. Each student, on admission shall be assigned to a **Faculty Advisor** who shall advise her/him about the academic programs and counsel on the choice of courses considering the student's profile and career objectives.
- ii. With the advice and consent of the Faculty Advisor the student shall register for a set of courses he/she plans to take up for the Semester.
- iii. The student should meet the criteria for prerequisites, if defined for a course, to become eligible to register for that course.
- iv. The Institute shall follow a selection procedure on a first come first served basis, determining the maximum number of students, giving counseling to the students, etc., to avoid overcrowding to particular course(s) at the expense of some other courses.
- v. It is expected that a student registers for 26 credits in Sem I, II, 29 Credits in Sem III each and balance 19 credits in Sem IV.
- vi. However fast learners (under accelerated plan), may be permitted to register for 2 full credit / 3

half credit courses in excess of the normal credits defined for a semester. However, registration for Repeat courses (backlogs) is allowed in excess of this limit.

- vii. Likewise, slow learners, may be permitted to register for 2 full credit / 3 half credit courses less than the normal credits defined for a semester.
- viii. A candidate may register for a minimum of say, 20 credits per semester, but it is possible that he/she may earn less than 20 credits in a semester. It may be theoretically possible that he/she may just earn ZERO credits in a semester. However, he/she should register for credits less than or equal to permissible maximum and more than or equal to permissible minimum per semester, excluding the courses of earlier semester(s), for which he/she has not earned the credits (uncleared courses) if any.
- ix. Students shall have to register for the courses for the semester within first week of Semester I and immediately after conclusion of the earlier term for Sem II, III and IV. i.e. The fresh inducted batch shall register for various courses at the end of the first week of their Sem I after their induction. They will register for Sem II courses immediately at the end of Sem I and likewise for subsequent semesters. In Sem I the registration window shall be open for sufficiently long duration to take care of late admissions.
- x. The maximum number of students to be registered in each elective course shall depend upon the physical facilities available. Every effort shall be made by the Institute to accommodate as many students as possible.
- xi. Students who do not earn credits for an elective course (generic / subject / open) are permitted to opt for another elective course (generic / subject / open) in case they feel to do so. In such a case they shall be said to have **dropped the original course and opted for a new one**. Alternatively, they are permitted to continue with the same elective course (generic / subject / open) i.e. If a student secures a F Grade in say course no 111 for which he has opted in Sem I, during the successive attempt he may drop course 111 and take up another course from 107 to 115, or continue with 111.
- xii. Normally, every Lecture-based course shall, be delivered by one teacher.
- xiii. The Institute may not offer a course if a minimum of 20% of students are not registered for that course.

4. Eligibility: The eligibility for admissions shall be defined by the Competent Authority viz. AICTE / DTE Maharashtra State for the relevant academic year.

5. Examination:

Pattern of Examination: The evaluation scheme comprises of:

- a) University Evaluation
- b) Concurrent Evaluation

For each full credit course –

- a) 70 marks shall be evaluated by the University and
- b) 30 marks shall be evaluated by the respective Institute.

For each half credit course –

- a) 50 marks shall be evaluated by the respective Institute.
- There shall not be any University evaluation for half credit courses.*

(Evaluation Scheme for Summer Internship Project is detailed separately.)

5.1 University Evaluation

There shall be University evaluation for each full credit course as per the time table announced by the University. The evaluation by the University for Full Credit Courses shall comprise of two parts:

- a) Online Examination for 20 marks.
- b) Written Examination (subjective – concept plus case study / application oriented type) for 50 marks.

5.1.1 Online Examination

The University of Pune shall conduct an online examination for each full credit course. This examination will be *objective* in nature and shall carry a *weightage of 20 marks per full credit course*. Students will appear for the online examinations in their respective institutes. Online examination shall constitute a *separate head of passing* for the full credit courses for which such online examination is scheduled. Passing shall be at 40%, i.e. Grade E. The student does NOT have a facility of Grade Improvement, in online examination, if he/she has secured any grade other than F.

The Controller of Examinations of the University of Pune shall announce the *online examination window of 3 days per semester* i.e. a window of 3 days for Sem I and another window of 3 days for Sem III (in term I and likewise for term II) for the examination, *in consultation with the Dean – Faculty of Management*. The online test shall be conducted for all 4 semesters during each term. A similar window of 3 days for Sem II (backlog) and another window of 3 days for Sem IV backlog shall be announced in term I and vice-versa for Sem I backlog and Sem III backlog in term II for students who score Grade F in the online exam.

There shall NOT be any retest for those students who is absent for the online exam during the declared examination window period. Any student, who *is absent* for the online test during the regular term, can take the online test for the specific course in the next term and his grades evaluation shall be updated accordingly in the revised **Grade Card**.

Generally the schedule for online examination will be as follows:

- a) Semester I - in the 8th/9th week after the commencement of semester I.
- b) Semester II, III and IV - in the 7th/ 8th week after the commencement of respective semester.

The date declared by DTE for commencement of classes as per CAP process shall be the reference date for Sem I. Only for Sem I, in case of unforeseen circumstances the Controller of Examinations (CoE), University of Pune, in consultation with the Dean of the Faculty of Management may postpone the examinations for Sem I. However the online examinations shall not be postponed beyond 10th week after commencement of the classes / course for Sem I.

For Sem II, III and IV the reference date shall be the term commencement date declared by the UoP.

The syllabus for the online examination shall be the first two units in each full credit course (2 out of total 5 units, i.e. 40% of the syllabus). The duration of online examination for each course shall be of 25 minutes.

There shall be **one mark for each correct response and 0.25 negative marks for each incorrect response. There shall be 20 questions – each carrying one mark. All the questions shall be compulsory.** The questions shall be of different variety within the objective format. In the extreme event of a student answering all the questions incorrectly, the final score of such a student for that course for the online examination shall be 0 (ZERO) and not -5 (MINUS FIVE).

The Faculty of Management shall devise objective question bank comprising questions of varying degree of difficulty, and of different types, in sufficiently large number for each course for the exclusive purpose of the online examination. *The objective question paper shall be developed in real time, randomly using an ERP / Learning Management System.*

The Institutes shall ensure the provision of necessary IT infrastructure and internet bandwidth, backup power supply, for the smooth conduct of such online examination.

The score of each candidate for each course shall be known immediately after the conclusion of the online test and the Institute shall display the scores of all students for the online test within 3 days of the completion of the test.

5.1.2 Instructions to External Paper Setters / Chairman/ Examiners: The syllabus for each course is organized in 5 units. The end-semester University evaluation shall cover the entire syllabus prescribed for the course. For University evaluation (Written Examination – subjective type of 50 marks) of each full credit course, the question pattern shall be as follows:

Pattern of Question Paper:

- 1) There shall be five questions each of 10 marks.
- 2) All questions shall be compulsory with internal choice within the questions. i.e. There shall be 2 questions from each unit of the curriculum with an internal option.
- 3) A Question may be subdivided into sub-questions a, b, c... and the allocation of marks depend on the weightage of the topic.

ILLUSTRATIVE PATTERN OF QUESTION PAPER	
Q. 1 (A).....	based on Unit 1
OR	
Q.1 (B)	based on Unit 1
Q.2. (A)	based on Unit 2
OR	
Q.2 (B)	based on Unit 2
Q.3 (A)	based on Unit 3
OR	
Q.3 (B)	based on Unit 3
Q.4 (A)	based on Unit 4
OR	
Q.4 (B)	based on Unit 4
Q.5 (A)	based on Unit 5
OR	
Q.5 (B)	based on Unit 5

Questions shall assess knowledge, application of knowledge, and the ability to synthesize knowledge. The paper setter shall ensure that questions covering all skills and all units are set. She/he shall also *mandatorily submit* a detailed scheme of evaluation along with the question paper. Questions shall be of three categories of difficulty level – low difficulty, average difficulty and high difficulty.

The duration of written examination shall be 2 hours. Students shall be provided a single answer sheet of 16 pages. They must ensure that their responses fit within the provided answer sheet. Additional supplements shall not be provided.

5.2 Concurrent Evaluation: A continuous assessment system in semester system (also known as internal assessment/comprehensive assessment) is spread through the duration of course and is done by the teacher teaching the course.

The continuous assessment provides a feedback on teaching learning process. The feedback after being analyzed is passed on to the concerned student for implementation and subsequent improvement. As a part of concurrent evaluation, the learners shall be *evaluated on a continuous basis* by the Institute to ensure that student learning takes place in a graded manner.

Concurrent evaluation components should be designed in such a way that the faculty can *monitor the student learning & development and intervene wherever required*. The faculty must share the outcome of each concurrent evaluation component with the students, soon after the evaluation, and guide the students for betterment.

Individual faculty member shall have the flexibility to design the concurrent evaluation components in a manner so as to give a balanced assessment of student capabilities across Knowledge, Skills & Attitude (KSA) dimensions based on variety of assessment tools.

Suggested components for Concurrent Evaluation (CE) are:

1. Case Study / Caselet / Situation Analysis – (Group Activity or Individual Activity)
2. Class Test
3. Open Book Test
4. Field Visit / Study tour and report of the same
5. Small Group Project & Internal Viva-Voce
6. Learning Diary
7. Scrap Book
8. Group Discussion
9. Role Play / Story Telling
10. Individual Term Paper / Thematic Presentation
11. Written Home Assignment
12. Industry Analysis – (Group Activity or Individual Activity)
13. Literature Review / Book Review
14. Model Development / Simulation Exercises – (Group Activity or Individual Activity)
15. In-depth Viva
16. Quiz

There shall be a *minimum of three concurrent evaluation components per full credit course and five concurrent evaluation components for each half credit course*. The faculty shall announce in advance the units based on which each concurrent evaluation shall be conducted. Each component shall ordinarily be of 10 marks. The Institute shall however have the liberty to conduct additional components (beyond three/five). However the total outcome shall be scaled down to 30/50 marks for full credit and half credit courses respectively. Marks for the concurrent evaluation must be communicated by the Institute to the University as per the schedule declared by the University. Detailed record of the Concurrent Evaluation shall be maintained by the Institute. The same shall be made available to the University, on demand.

At the end of Concurrent Evaluation (out of 30/50 marks) the student does NOT have a facility of Grade Improvement, if he/she has secured any grade other than F.

5.2.1 Safeguards for Credibility of Concurrent Evaluation: The following practices are encouraged to enhance transparency and authenticity of concurrent evaluation:

- a) Involving faculty members from other management institutes.
- b) Setting multiple question paper sets and choosing the final question paper in a random manner.
- c) One of the internal faculty members (other than the course teacher) acting as jury during activity based evaluations.
- d) Involvement of Industry personnel in evaluating projects / field based assignments.
- e) Involvement of alumni in evaluating presentations, role plays, etc.
- f) 100% moderation of answer sheets, in exceptional cases.

5.3 Summer Internship Project: At the end of Second Semester each student shall undertake a **Summer Internship Project (SIP) for 8 weeks. It is mandatory for the student to seek advance written approval from the faculty guide and the Director of the Institute about the topic and organization before commencing the SIP.** The SIP may or may not have a Functional Focus, i.e. the student may take up a SIP in his/her intended area of specialization or in any other functional area of management. Ideally the SIP should exhibit a cross-functional orientation. The student shall submit a written structured report based on work done during this period.

SIP may be a research project – based on primary / secondary data or may be an operational assignment involving working by the student on a given task/assignment/project/ etc. in an organization / industry. It is expected that the SIP shall sensitize the students to the demands of the workplace. *The learning*

outcomes and utility to the organization must be specifically highlighted.

The report should be well documented and supported by –

1. Executive Summary
2. Organization profile
3. Outline of the problem/task undertaken
4. Research methodology & data analysis (in case of research projects only)
5. Relevant activity charts, tables, graphs, diagrams, etc.
6. Learning of the student through the project
7. Contribution to the host organization
8. References in appropriate referencing styles. (APA, MLA, Harvard, Chicago Style etc.)

It should reflect the nature and quantum of work undertaken by the student. The report must reflect 8 weeks of work and justify the same.

The completion of the SIP shall be certified by the respective Faculty Guide & approved by the Director of the Institute. The external organization (Corporate / NGO/ SME/ etc.) shall also certify the SIP work.

The student shall submit **TWO hard copies & one soft copy (CD)** of the project report before 30th September in Sem III. One hard copy is to be returned to the student after by the Institute after the External Viva-Voce.

In the interest of environmental considerations, students are encouraged to print their project reports on both faces of the paper.

SIP shall have a weightage of 6 credits. The Institute shall conduct an internal viva-voce for evaluation of the SIP for 50 marks. The Panel shall comprise of the Internal Faculty Guide & One additional faculty nominated by the Director.

There shall be an external viva-voce for the SIP for 100 marks. The examiner's panel for the same shall include one external faculty member nominated by the University and one internal faculty member nominated by the Director. The external viva-voce shall be conducted for 15 minutes at least per student.

The Internal & the External viva-voce shall evaluate the project based on:

1. Actual work undertaken by the student
2. Student's understanding of the organization and business environment
3. Outcome of the project
4. Utility of the project to the organization
5. Basic analytical capabilities

Copies of SIP report and records of evaluation shall be maintained by the Institute for a period of 3 academic years.

5.4 Dissertation: In Sem IV the student shall work under the supervision of the Faculty and carry out a dissertation and submit a structured report in TWO hard copies & one soft copy (CD). *In the interest of environmental considerations, students are encouraged to print their dissertation reports on both faces of the paper.*

The student is required to conduct advanced research on a topic related to one (or more) of contemporary issues in management. The topic is chosen in consultation with the student's supervisor. The student will prepare and present a detailed research proposal prior to starting the work. It is mandatory for the student to seek advance written approval from the faculty guide and the Director of the Institute about the topic before commencing the dissertation work. A dissertation outlining the entire problem, including a survey of literature and the various results obtained along with their solutions is expected to be produced. The student must submit the completed dissertation and make an oral

presentation of the same. Through the dissertation, the student is expected to furnish evidence of competence in understanding varied aspects of the theme/topic selected and a deep understanding of the specialty area. The completion of the dissertation / project shall be certified by the Faculty Guide & approved by the Director of the Institute.

Dissertation shall have a weightage of 2 credits. The Institute shall conduct a viva-voce for evaluation of the dissertation, for 50 marks. The Panel shall comprise of 2 internal Faculty members (One who has supervised the student and the other one as Jury) nominated by the Director. The Institute may invite an additional external examiner from the industry. Copies of Dissertation report and records of evaluation shall be maintained by the Institute for a period of 3 academic years.

5.5 Standard of Passing: Every candidate must secure at least Grade E in Concurrent Evaluation as well as University Examination as separate heads of passing for each course.

Degree Requirements:

- a) **Earned Credits:** A candidate who has successfully completed all the Core courses and accumulated, through elective courses, not less than minimum number of Credits prescribed shall be eligible to receive the Degree. The degree requirements for the MBA programme is completion of 100 earned credits.
- b) **Final Grade Point Requirement:** A student must obtain the Final Grade Point of a minimum of 00.50 to be eligible for award of the MBA degree.

5.5.1 Conversion of Marks to Grade Points & Grades: The marks shall be converted to grade points and grades using Table I below.

Table I: Points Grading System

Sr. No.	Marks	Grade	Grade Point
1	100 – 75	O – Outstanding	06
2	74 – 65	A – Very Good	05
3	64 -55	B – Good	04
4	54 – 50	C – Average	03
5	49 – 45	D – Satisfactory	02
6	44 – 40	E – Pass	01
7	39 – 0	F – Fail	00

The description of the final grades shall be as follows:

O: Outstanding (Excellent Analysis of the topic - 75% and above)

Accurate knowledge of the primary material, wide range of reading, logical development of ideas, originality in approaching the subject. Neat and systematic organization of content, elegant and lucid style.

A: Very Good (Excellent Analysis of the topic - 65 to 74 %)

Accurate knowledge of the primary material, acquaintance with seminal publications, logical development of ideas. Neat and systematic organization of content, effective and clear expression.

B : Good (Good Analysis and treatment of the topic - 55 to 64 %)

Basic knowledge of the primary material, logical development of ideas. Neat and systematic organization of content, effective and clear expression.

C : Average (Some important points covered – 50 to 54%)

Basic knowledge of the primary material, logical development of ideas. Neat and systematic organization of content, good language or clear expression.

D: Satisfactory (Some points discussed – 45 to 49%)

Basic knowledge of the primary material, some organization of content, acceptable language or expression.

E: Pass (Any two of the above – 40 to 44%)

F: Fail (None of the above – 0 to 39%)

The performance of a student will be evaluated in terms of two indices, viz.

- a) Semester Grade Point Average (SGPA) which is the Grade Point Average for a semester
- b) Cumulative Grade Point Average (CGPA) which is the Grade Point Average for all the completed semesters at any point in time.

Semester Grade Point Average (SGPA): At the end of each semester, SGPA is calculated as the weighted average of GPI of all courses in the current semester in which the student has passed, the weights being the credit values of respective courses.

SGPA = Grade Points divided by the summation of Credits of all Courses.

$$\text{SGPA} = \frac{\sum \{C * \text{GPI}\}}{\sum C} \text{ for a semester.}$$

Where GPI is the Grade and C is credit for the respective Course.

Cumulative Grade Point Average (CGPA): Cumulative Grade Point Average (CGPA) is the grade point average for all completed semesters. CGPA is calculated as the weighted average of all GPI of all courses in which the student has passed up to the current semester.

Cumulative Grade Point Average (CGPA) for the Entire Course

$$\text{CGPA} = \frac{\sum \{C * \text{GPI}\}}{\sum C} \text{ for all semesters taken together.}$$

Where GPI is the Grade and C is credit for the respective Course.

Note: If a student secures F grade in either or both of Concurrent Evaluation or University Evaluation for a particular course his /her credits earned for that course shall be ZERO.

5.5.2 Scaling Down of Concurrent Evaluation Scores: The marks obtained by the student for the Concurrent Evaluation components conducted by the Institute (i.e. out of 30 marks), in the Full Credit Courses, in Sem I to Sem IV, shall be scaled down, to the required extent, if percentage of the marks of Concurrent Evaluation exceeds the percentage of marks scored in the end semester University Examination by 25% for the respective course. Scores of Online Examination are not part of the scaling down formula. i.e. (percentage of marks scored out of 30 in concurrent evaluation) – (percentage of marks scored out of 50 in university evaluation) should not exceed 25%.

The marks obtained by the student in Half Credit Courses are **not subject to** scaling down. Likewise, the marks obtained by the student in Concurrent Evaluation for the Summer Internship Project (Course 304) shall **not be** subjected to Scaling down.

5.5.3 Attendance: The student must meet the requirement of 75% attendance per semester per course for granting the term. The Director shall have the right to withhold the student from appearing for examination of a specific course if the above requirement is not fulfilled.

Since the emphasis is on continuous learning and concurrent evaluation, it is expected that the students study all-round the semester. *Therefore, there shall not be any preparatory leave before the University examinations.*

5.6 ATKT Rules: A student shall earn the credits for a given course in **maximum four attempts**. If a student drops a course (generic elective / subject elective) and opts for another course in lieu of the dropped course the attempts utilized for the dropped course shall be included in the maximum 4 attempts available to earn the credits for a course. The facility of dropping a course and opting for a new course in

lieu of the dropped course shall be availed by the student only once during these four attempts available to him. A student may drop at the most 2 courses out of the 16 elective courses and select other courses in lieu of dropped courses. i.e. Dropping a course can be done only twice.

Maximum Duration for completion of the Programme: The candidates shall complete the MBA Programme within 4 years from the date of admission, by earning the requisite credits. The student will be finally declared as failed if she/he does not pass in all credits within a total period of four years. After that, such students will have to seek fresh admission as per the admission rules prevailing at that time.

5.7 Award of Grade Cards: The University of Pune under its seal shall issue to the student a grade card on completion of each semester. The final Grade Card issued at the end of the final semester shall contain the details of all courses taken during the entire programme for obtaining the degree.

Final Grades: After calculating the SGPA for an individual semester and the CGPA for entire programme, the value shall be matched with the grade in the Final Grade Points Table (as per Table II) and expressed as a single designated GRADE such as O, A, B, C, D, E, F.

Table II: Final Grade Points

Sr. No.	Grade Points	Grade
1	05.00 to 6.00	O - Outstanding
2	04.50 to 04.99	A – Very Good
3	03.50 to 04.49	B – Good
4	02.50 to 03.49	C – Average
5	01.50 to 02.49	D – Satisfactory
6	00.50 to 01.49	E – Pass
7	00.00 to 00.49	F – Fail

A student who secures grade E or above in a course is said to have completed /earned the credits assigned to the course. A student who completed the minimum credits required for the MBA programme shall be declared to have completed the programme.

NOTE:

The Grade Card for the final semester shall indicate the following, amongst other details:

- a) Grades for concurrent evaluation (out of 30 for Full Credit Courses & out of 50 for Half Credit Courses) , Online evaluation (out of 20 for Full Credit Courses only) and University evaluation (out of 50 for Full Credit Courses only), separately, for all courses offered by the student during the entire programme along with the grade for the total score.
- b) SGPA for each semester.
- c) CGPA for final semester.
- d) Total Marks Scored out of Maximum Marks for the entire programme, with break-up of Marks Scored in Concurrent Evaluation and University Evaluation (Semester Wise).
- e) Marks scored shall not be recorded on the Grade Card for intermediate semesters.
- f) The grade card shall also show the 7 point scale and the formula to convert GPI, SGPA, and/or CGPA to percent marks.
- g) The final GPA shall not be printed unless the student earns the minimum 100 credits required for earning the MBA Degree.
- h) B Grade is equivalent to atleast 55% marks.
- i) If the GPA is higher than the indicated upper limit in the three decimal digit, then the student may be awarded higher final grade e.g. a student getting a GPA of 4.492 may be awarded grade A. The grade card shall also provide, on the reverse, the 10-point scale and the formula to convert GPI, SGPA, and/or CGPA to percent marks.

5.8 Grade Improvement: A Candidate who has secured any grade other than F (i.e. passed the MBA programme) and desires to avail the Grade Improvement facility, may apply under Grade Improvement

Scheme within five years from passing that Examination. He/she can avail not more than three attempts, according to the syllabus in existence, for grade improvement. He /she shall appear for University Evaluation of at least 1/3rd Generic / Subject Core Courses (except SIP) for the purpose of Grade Improvement.

5.9 External Students: MBA being a full time programme, there is no provision of external students.

5.10 Verification / Revaluation: Students can avail the verification / revaluation facility as per the prevailing policy, guidelines and norms of the University of Pune. There shall be Revaluation of the answer scripts of Semester-End examination but not of internal assessment papers as per Ordinance no.134 A & B.

5.11 Additional Specialization: A student may enroll for additional specialization *after passing out the regular MBA programme*. Such students will get exemption from all the generic core and generic elective courses in First Year (Sem I and II) and generic core courses in Second Year (Sem III and IV). Such students shall have to appear for the subject core and subject elective courses i.e. 2 Full Credit Courses & 4 Half Credit Courses in Sem III and IV each. i.e. a total of 12 subject electives (specialization) courses of which 4 are full credits and 8 are half credits.

6. **Structure of the Programme:** The programme is a combination of:

- a) Full Credit Courses (100 Marks each) : 3 Credits each
- b) Half Credit Courses (50 Marks each) : 2 Credits each

Total Credits: 100 Credits (3000 Marks), Total Courses = 38.

- a) 20 Full Credit Courses * 3 credits per course = 60 Credits (2000 Marks)
- b) 1 Full Credit Course - SIP = 6 Credits (150 Marks)
- c) 16 Half Credit Courses * 2 credits per course = 32 Credits
- d) 1 Dissertation (Half Credit) = 2 Credits

The spread of courses across the 4 semesters for a normal learner is given below.

Table III: Break Up & Spread of Courses

Spread of Full & Half Credit Courses:

Semester	Full Credit Courses (100 Marks) (A)	Half Credit Courses (50 Marks) (B)
I	6	4
II	6	4
III	5	4
III	1 (SIP for 6 Credits)	-
IV	3	4
IV	-	1 (Dissertation for 2 Credits)
Total	21	17

Break Up of Full Credit Courses:

Semester	Number of Generic Core Courses (A)	Number of Subject (Specialization) Core Courses (B)	Total Number of Full Credit Courses (100 Marks) (C = A + B)
I	6	0	6
II	6	0	6
III	4**	2	6**
IV	1	2	3
Total	17	4	21

** includes SIP for 6 Credits & 150 Marks

Break Up of Half Credit Courses:

Semester	Number of Generic Elective Courses (A)	Number of (Specialization) Courses (B)	Subject Elective	Total Number of Half Credit Courses (50 Marks) (C = A + B)
I	4	0		4
II	4	0		4
III	0	4		4
IV	1 [#]	4		5 [#]
Total	9	8		17

Dissertation for 2 Credits

Detailed Programme Structure is provided in Annexure I.

6.1 Pedagogy: It is expected that the faculty members adopt a variety of teaching methodologies, such as case studies, role-play, problem solving exercises, group discussion, computer simulation games, etc. during the programme delivery. Use of technology and innovative techniques beyond the lecture method is desirable.

MBA being a post-graduate professional Programme, students are also expected to assimilate certain topics through self-study.

6.2 Medium of Instruction: The medium of Instruction & Evaluation shall be English.

7. Equivalence of previous syllabus with the proposed syllabus: The equivalence of the previous syllabus with the proposed syllabus shall be announced separately.

8. University Terms: The dates for the commencement and conclusion of the first and the second terms shall be as determined by the University Authorities. The terms can be kept only by duly admitted students. The present relevant ordinances pertaining to grant of terms will be applicable.

9. Course wise detailed syllabus: Course wise detailed syllabus along with recommended text books, reference books, websites, journals, etc. is provided in Annexure II.

10. Qualifications of Teacher: The qualifications of the full time teacher for the MBA Programme shall be as per AICTE norms prescribed from time to time.

10.1 Teacher Capacity Building: The faculty of management shall organize suitable programmes for capacity building of teachers.

Annexure I - Detailed Programme Structure

Table IV – A: Generic Core Courses

	Generic Core Courses	Credits	Semester	Concurrent Evaluation	Online Evaluation	University Evaluation (Subjective)	Total Marks
101	Accounting for Business Decisions	3	I	30	20	50	100
102	Economic Analysis for Business Decisions	3	I	30	20	50	100
103	Legal Aspects of Business	3	I	30	20	50	100
104	Business Research Methods	3	I	30	20	50	100
105	Organizational Behaviour	3	I	30	20	50	100
106	Basics of Marketing	3	I	30	20	50	100
201	Marketing Management	3	II	30	20	50	100
202	Financial Management	3	II	30	20	50	100
203	Human Resource Management	3	II	30	20	50	100
204	Decision Science	3	II	30	20	50	100
205	Operations & Supply Chain Management	3	II	30	20	50	100
206	Management Information Systems	3	II	30	20	50	100
301	Strategic Management	3	III	30	20	50	100
302	Enterprise Performance Management	3	III	30	20	50	100
303	Startup and New Venture Management	3	III	30	20	50	100
304	Summer Internship Project	6	III	50	00	100	150
401	Managing for Sustainability	3	IV	30	20	50	100
402	Dissertation	2	IV	50	00	00	50

Note: Each Generic Core Course is a Full Credit course of 45 hours. Out of 45 hours 35 hours shall be devoted to teaching – learning sessions and 10 hours for evaluation/projects.

30 marks shall be reserved for concurrent evaluation to be carried out by the Institute, 20 marks for online mid-term evaluation to be conducted by the University and 50 marks shall be term end written examination to be conducted by the University.

Course 304 - SIP shall have 6 Credits and 150 marks. (50 Marks for Concurrent Evaluation & 100 Marks for University Evaluation)

Course 402 – Dissertation shall have 2 Credits and 50 marks Concurrent Evaluation.

Table IV – B: Generic Elective Courses

	Generic Elective Courses	Credits	Semester	Concurrent Evaluation	Total Marks
107	Management Fundamentals	2	I	50	50
108	Business Communication Lab	2	I	50	50
109	MS Excel & Advanced Excel Lab	2	I	50	50
110	Selling & Negotiation Skills Lab	2	I	50	50
111	Business, Government & Society	2	I	50	50
112	Leadership Lab	2	I	50	50
113	Personality Development Lab	2	I	50	50
114	Foreign Language - I Lab	2	I	50	50
115	Enterprise Analysis - Desk Research	2	I	50	50
207	Emotional Intelligence and Managerial Effectiveness Lab	2	II	50	50
208	Statistical Software Lab	2	II	50	50
209	MS Project Lab	2	II	50	50
210	Life Skills Lab	2	II	50	50
211	Geopolitics & the World Economic System	2	II	50	50
212	Business Systems & Procedures	2	II	50	50
213	Computer Aided Personal Productivity Tools Lab	2	II	50	50
214	Foreign Language - II Lab	2	II	50	50
215	Industry Analysis - Desk Research	2	II	50	50

Note: Each Generic Elective Course is a Half Credit course of 30 hours. Out of 30 hours 25 hours shall be devoted to teaching – learning sessions and 5 hours for evaluation/projects.

50 marks shall be devoted for concurrent evaluation to be carried out by the Institute.

There shall not be any evaluation by the University (online / subjective) for all Half Credit Courses.

Table IV – C: Subject Core Courses

	Subject Core Courses (Marketing)	Credits	Semester	Concurrent Evaluation	Online Evaluation	University Evaluation (Subjective)	Total Marks
305MKT	Contemporary Marketing Research	3	III	30	20	50	100
306MKT	Consumer Behaviour	3	III	30	20	50	100
403MKT	Services Marketing	3	IV	30	20	50	100
404MKT	Sales and Distribution Management	3	IV	30	20	50	100
	Subject Core Courses (Finance)	Credits	Semester	Concurrent Evaluation	Online Evaluation	University Evaluation (Subjective)	Total Marks
305 FIN	Financial Regulatory Framework	3	III	30	20	50	100
306 FIN	Merchant Banking and Financial Services	3	III	30	20	50	100
403 FIN	International Finance	3	IV	30	20	50	100
404 FIN	Corporate Finance	3	IV	30	20	50	100
	Subject Core Courses (Information Technology)	Credits	Semester	Concurrent Evaluation	Online Evaluation	University Evaluation (Subjective)	Total Marks
305 IT	I T Management	3	III	30	20	50	100
306 IT	E-Business	3	III	30	20	50	100
403 IT	Software Project Management	3	IV	30	20	50	100
404 IT	Enterprise Resource Planning (ERP)	3	IV	30	20	50	100
	Subject Core Courses (Operations Management)	Credits	Semester	Concurrent Evaluation	Online Evaluation	University Evaluation (Subjective)	Total Marks
305 OPE	Planning & Control of Operations	3	III	30	20	50	100
306 OPE	Inventory Management	3	III	30	20	50	100
403 OPE	Operations Strategy	3	IV	30	20	50	100
404 OPE	Total Quality Management	3	IV	30	20	50	100
	Subject Core Courses (Human Resources Management)	Credits	Semester	Concurrent Evaluation	Online Evaluation	University Evaluation (Subjective)	Total Marks
305 HR	Labour Laws	3	III	30	20	50	100
306 HR	Performance Management	3	III	30	20	50	100
403 HR	Industrial Relations	3	IV	30	20	50	100
404 HR	Strategic Human Resource Management	3	IV	30	20	50	100

	Subject Core Courses (International Business Management)	Credits	Semester	Concurrent Evaluation	Online Evaluation	University Evaluation (Subjective)	Total Marks
305 IB	International Business Economics	3	III	30	20	50	100
306 IB	Export Documentation and Procedures	3	III	30	20	50	100
403 IB	International Business Environment	3	IV	30	20	50	100
404 IB	Indian Economy and Trade Dependencies	3	IV	30	20	50	100
	Subject Core Courses (Supply Chain Management)	Credits	Semester	Concurrent Evaluation	Online Evaluation	University Evaluation (Subjective)	Total Marks
305 SCM	Essentials of Supply Chain Management	3	III	30	20	50	100
306 SCM	Logistics Management	3	III	30	20	50	100
403 SCM	Strategic Supply Chain Management	3	IV	30	20	50	100
404 SCM	Knowledge Management in Supply Chains	3	IV	30	20	50	100
	Subject Core Courses (Rural & Agribusiness Management)	Credits	Semester	Concurrent Evaluation	Online Evaluation	University Evaluation (Subjective)	Total Marks
305RABM	Agriculture and Indian Economy	3	III	30	20	50	100
306RABM	Rural Marketing I	3	III	30	20	50	100
403RABM	Rural Credit and Finance	3	IV	30	20	50	100
404RABM	Rural Marketing II	3	IV	30	20	50	100

	Subject Core Courses (Family Business Management)	Credits	Semester	Concurrent Evaluation	Online Evaluation	University Evaluation (Subjective)	Total Marks
305FBM	Essentials of Family Business Management – I	3	III	30	20	50	100
306 FBM	Managing Innovation - I	3	III	30	20	50	100
403 FBM	Essentials of Family Business Management – II	3	IV	30	20	50	100
404 FBM	Managing Innovation – II	3	IV	30	20	50	100
	Subject Core Courses (Technology Management)	Credits	Semester	Concurrent Evaluation	Online Evaluation	University Evaluation (Subjective)	Total Marks
305TM	Fundamentals of Technology Management	3	III	30	20	50	100
306TM	Managing Innovation – I	3	III	30	20	50	100
403TM	Technology Competition and Strategy	3	IV	30	20	50	100
404TM	Managing Innovation – II	3	IV	30	20	50	100

Note: Each Subject Core Course is a Full Credit course of 45 hours. Out of 45 hours 35 hours shall be devoted to teaching – learning sessions and 10 hours for evaluation/projects.

30 marks shall be reserved for concurrent evaluation to be carried out by the Institute, 20 marks for online mid-term evaluation to be conducted by the University and 50 marks shall be term end written examination to be conducted by the University.

Table IV – D: Subject Elective Courses

	Subject Elective Courses (Marketing Management)	Credits	Semester	Concurrent Evaluation	Total Marks
307MKT	Integrated Marketing Communications	2	III	50	50
308MKT	Product Management	2	III	50	50
309MKT	Strategic Brand Management	2	III	50	50
310MKT	Personal Selling Lab	2	III	50	50
311MKT	Qualitative Marketing Research	2	III	50	50
312MKT	Customer Relationship Management	2	III	50	50
313MKT	Marketing and the Law	2	III	50	50
314MKT	Finance for Marketing Professionals	2	III	50	50
315MKT	Marketing of Financial Services - I	2	III	50	50
316MKT	Tourism Marketing	2	IV	50	50
317MKT	Agricultural Marketing	2	IV	50	50
318MKT	Business to Business Marketing	2	IV	50	50
405MKT	Retail Marketing	2	IV	50	50
406MKT	Rural Marketing	2	IV	50	50
407MKT	Service Operations Management	2	IV	50	50
408MKT	International Marketing	2	IV	50	50
409MKT	Export Documentation & Procedures	2	IV	50	50
410MKT	Marketing Strategy	2	IV	50	50
411MKT	Marketing Decision Models	2	IV	50	50
412MKT	Marketing of High Technology Products	2	IV	50	50
413MKT	E-Marketing	2	IV	50	50
414MKT	Marketing to Emerging Markets & Bottom of the Pyramid	2	IV	50	50
415MKT	Marketing of Financial Services - II	2	IV	50	50
416MKT	Cross Cultural Relationship Marketing	2	IV	50	50

	Subject Elective Courses (Financial Management)	Credits	Semester	Concurrent Evaluation	Total Marks
307 FIN	Income Tax – I	2	III	50	50
308 FIN	Project Finance	2	III	50	50
309 FIN	Strategic Cost Management	2	III	50	50
310 FIN	Corporate Financial Reporting	2	III	50	50
311 FIN	International Financial Reporting Standards	2	III	50	50
312 FIN	Corporate Financial Restructuring	2	III	50	50
313 FIN	Equity Research	2	III	50	50
314 FIN	Credit Analysis and Appraisal	2	III	50	50
315 FIN	Banking Operations - I	2	III	50	50

316 FIN	Treasury Management	2	III	50	50
317 FIN	Financial Instruments and Derivatives	2	III	50	50
318 FIN	Financial Statement Analysis	2	III	50	50
319 FIN	Futures & Options	2	III	50	50
320 FIN	Back Office Operations	2	III	50	50
321 FIN	Principles of Insurance	2	III	50	50
322 FIN	Rural Financial Institutions	2	III	50	50
323 FIN	Social finance for Inclusive Growth - I	2	III	50	50
405 FIN	Income Tax – II	2	IV	50	50
406 FIN	Infrastructure Finance	2	IV	50	50
407 FIN	Behavioral Finance	2	IV	50	50
408 FIN	Financial Modeling Using Excel	2	IV	50	50
409 FIN	Indirect Taxation	2	IV	50	50
410 FIN	Financial Risk Management	2	IV	50	50
411 FIN	Online Trading of Financial Assets	2	IV	50	50
412 FIN	Banking Operations – II	2	IV	50	50
413 FIN	Wealth & Portfolio Management	2	IV	50	50
414 FIN	Fixed Income Securities	2	IV	50	50
415 FIN	Technical Analysis	2	IV	50	50
416 FIN	Commodity Markets and Derivatives	2	IV	50	50
417 FIN	Practice of Life Insurance	2	IV	50	50
418 FIN	Information Systems Audit	2	IV	50	50
419 FIN	Practice of General Insurance	2	IV	50	50
420 FIN	Financing Rural Development	2	IV	50	50
421 FIN	Social finance for Inclusive Growth - II	2	IV	50	50

	Subject Elective Courses (Information Technology Management)	Credits	Semester	Concurrent Evaluation	Total Marks
307 IT	Software Engineering	2	III	50	50
308 IT	Mobile Computing with Android	2	III	50	50
309 IT	RDBMS with Oracle	2	III	50	50
310 IT	Software Quality Assurance	2	III	50	50
311 IT	E-Learning	2	III	50	50
312 IT	Software Marketing	2	III	50	50
313 IT	Business Intelligence and Analytics	2	III	50	50
314 IT	Cyber Laws	2	III	50	50
315 IT	IT for Retailing	2	III	50	50
316 IT	Technical Writing	2	III	50	50
405 IT	Web Designing and Multimedia	2	IV	50	50
406 IT	Network Technologies and Security	2	IV	50	50

407 IT	Data Base Administration	2	IV	50	50
408 IT	Software Testing	2	IV	50	50
409 IT	Information Security and Audit	2	IV	50	50
410 IT	Data Warehousing and Data Mining	2	IV	50	50
411 IT	Geographical Information Systems	2	IV	50	50
412 IT	E-Governance	2	IV	50	50
413 IT	Internet Marketing	2	IV	50	50
414 IT	Microsoft Office 2010 Lab	2	IV	50	50

	Subject Elective Courses (Operations Management)	Credits	Semester	Concurrent Evaluation	Total Marks
307 OPE	Productivity Management	2	III	50	50
308 OPE	Maintenance Management	2	III	50	50
309 OPE	Facilities Planning	2	III	50	50
310 OPE	Manufacturing Resource Planning	2	III	50	50
311 OPE	Technology Management	2	III	50	50
312 OPE	Six Sigma	2	III	50	50
313 OPE	Designing Operations Systems	2	III	50	50
314 OPE	Toyota Production System	2	III	50	50
315 OPE	Project Management	2	III	50	50
316OPE	Theory of Constraints	2	III	50	50
405 OPE	Quality Management Standards	2	IV	50	50
406 OPE	World Class Manufacturing	2	IV	50	50
407 OPE	Business Process reengineering	2	IV	50	50
408 OPE	Enterprise Resource Planning	2	IV	50	50
409 OPE	Financial Perspectives in Operations Management	2	IV	50	50
410 OPE	Service Operations Management	2	IV	50	50
411 OPE	Modeling Techniques for Operations	2	IV	50	50
412 OPE	Business Process Management	2	IV	50	50
413 OPE	Challenges and Opportunities in Operations Management	2	IV	50	50
414 OPE	Lean Manufacturing	2	IV	50	50

	Subject Elective Courses (Human Resources Management)	Credits	Semester	Concurrent Evaluation	Total Marks
307 HR	Employee Health & Safety	2	III	50	50
308 HR	Employee Welfare	2	III	50	50
309 HR	HR Audit	2	III	50	50
310 HR	Human Resource Information System	2	III	50	50
311 HR	Outsourcing of HR	2	III	50	50

312 HR	Public Relations & Corporate Communication	2	III	50	50
313 HR	Quality Management System	2	III	50	50
314 HR	Lab in Recruitment and Selection	2	III	50	50
315 HR	Lab in Job Design and Analysis	2	III	50	50
316 HR	Lab in Training	2	III	50	50
317 HR	Lab in Labour Laws – I	2	III	50	50
405 HR	Organizational Design and Development	2	IV	50	50
406 HR	Global HR	2	IV	50	50
407 HR	Employee Reward Management	2	IV	50	50
408 HR	Change Management	2	IV	50	50
409 HR	Conflict & Negotiation Management	2	IV	50	50
410 HR	Lab in CSR	2	IV	50	50
411 HR	Lab in Industrial Relations	2	IV	50	50
412 HR	Lab in Legal Compliances	2	IV	50	50
413HR	Lab in Mentoring and Coaching	2	IV	50	50
414 HR	Best Practices in HR	2	IV	50	50
415 HR	Designing HR Policies	2	IV	50	50
416 HR	Competency Mapping	2	IV	50	50

	Subject Elective Courses (International Business Management)	Credits	Semester	Concurrent Evaluation	Total Marks
307 IB	International Management	2	III	50	50
308 IB	International Marketing	2	III	50	50
309 IB	International Marketing Research	2	III	50	50
310 IB	International Financial Management	2	III	50	50
311 IB	Global IT Management	2	III	50	50
312 IB	Global Logistics & Supply Chains	2	III	50	50
313 IB	Designing Organizations for Uncertain Environment	2	III	50	50
314 IB	Legal Dimensions of International Business	2	III	50	50
315 IB	Global Strategic Management	2	III	50	50
316 IB	International Relations & Management	2	III	50	50
317 IB	Foreign Language for International Business – I	2	III	50	50
405 IB	Environment & Global Competitiveness	2	IV	50	50
406 IB	Marketing to Emerging Markets & Bottom of the Pyramid	2	IV	50	50
407 IB	Cross-Cultural Relationship Marketing	2	IV	50	50
408 IB	Foreign Exchange Management	2	IV	50	50
409 IB	E Commerce	2	IV	50	50
410 IB	Enterprise Resource Planning	2	IV	50	50

411 IB	Global HR	2	IV	50	50
412 IB	WTO and Intellectual Property Rights	2	IV	50	50
413 IB	Global Competitiveness and Strategic Alliances	2	IV	50	50
414 IB	International Diversity Management	2	IV	50	50
415 IB	Foreign Language for International Business – II	2	IV	50	50

	Subject Elective Courses (Supply Chain Management)	Credits	Semester	Concurrent Evaluation	Total Marks
307 SCM	Managing Material Flow in Supply Chains	2	III	50	50
308 SCM	Inventory Management	2	III	50	50
309 SCM	Purchasing & Supplier Relationship Management – I	2	III	50	50
310 SCM	Six Sigma	2	III	50	50
311 SCM	Supply Chain Planning	2	III	50	50
312 SCM	Supply Chain Coordination	2	III	50	50
313 SCM	Decision Modeling for Supply Chains	2	III	50	50
314 SCM	Theory of Constraints	2	III	50	50
315 SCM	Supply Chain Practices – I	2	III	50	50
405 SCM	Green Logistics & Supply Chains	2	IV	50	50
406 SCM	Enterprise Resource Planning	2	IV	50	50
407 SCM	Purchasing & Supplier Relationship Management – II	2	IV	50	50
408 SCM	Supply Chain Risk Management	2	IV	50	50
409 SCM	Project Management	2	IV	50	50
410 SCM	Supply Chain Performance Measurement	2	IV	50	50
411 SCM	Supply Chain Management - Financial Perspectives	2	IV	50	50
412 SCM	Global Logistics	2	IV	50	50
413 SCM	Supply Chain Practices– II	2	IV	50	50

	Subject Elective Courses (Rural & Agribusiness Management)	Credits	Semester	Concurrent Evaluation	Total Marks
307RABM	Rural Development I	2	III	50	50
308RABM	Special Areas in Rural Marketing	2	III	50	50
309RABM	Commodity Markets – I	2	III	50	50
310RABM	Agricultural Marketing & Price Analysis – I	2	III	50	50
311RABM	Microfinance	2	III	50	50
312RABM	Agricultural Marketing	2	III	50	50
313RABM	Rural Research Methods	2	III	50	50
314RABM	Rural Banking	2	III	50	50
315RABM	AgriSupply Chains Management	2	III	50	50

316RABM	ICT for Agriculture Management	2	III	50	50
317RABM	Tourism Marketing – I	2	III	50	50
318RABM	Millennium Development Goals	2	III	50	50
405RABM	Rural Development II	2	IV	50	50
406RABM	Special Areas in Agro produce Management	2	IV	50	50
407RABM	Commodity Markets – II	2	IV	50	50
408RABM	Agricultural Marketing and Price Analysis – II	2	IV	50	50
409RABM	Agricultural Finance and Project Management	2	IV	50	50
410RABM	Management of Agricultural Input Marketing	2	IV	50	50
411RABM	Intellectual Property Management	2	IV	50	50
412RABM	Food Retail Management	2	IV	50	50
413RABM	Agri-Entrepreneurship	2	IV	50	50
414RABM	Management of Agribusiness Cooperatives	2	IV	50	50
415RABM	Tourism Marketing – II	2	IV	50	50
416RABM	Agriculture & WTO	2	IV	50	50

	Subject Elective Courses (Family Business Management)	Credits	Semester	Concurrent Evaluation	Total Marks
307 FBM	Business Plan	2	III	50	50
308 FBM	Private Equity	2	III	50	50
309 FBM	Franchising	2	III	50	50
310 FBM	Social Entrepreneurship	2	III	50	50
311 FBM	Intrapreneurship	2	III	50	50
312 FBM	Trends in Entrepreneurship	2	III	50	50
313 FBM	Small Scale Industries Management	2	III	50	50
314 FBM	Entrepreneurial Case Study	2	III	50	50
405 FBM	Creativity and Change in Organizations	2	IV	50	50
406 FBM	Accounting for Small Business	2	IV	50	50
407 FBM	Management of Intellectual Property Rights	2	IV	50	50
408 FBM	Managing , Growing and Exiting the new Venture	2	IV	50	50
409 FBM	Project Management	2	IV	50	50
410 FBM	Environment and Laws	2	IV	50	50
411 FBM	Information, Disaster and Health Management	2	IV	50	50
412 FBM	Business Incubation	2	IV	50	50

	Subject Elective Courses (Technology Management)	Credits	Semester	Concurrent Evaluation	Total Marks
307TM	Technology Forecasting	2	III	50	50
308TM	Strategies for information goods and network economies – I	2	III	50	50
309TM	Advanced Manufacturing Technology	2	III	50	50

310TM	Product Strategies for High Technology Companies – I	2	III	50	50
311TM	Foundations of Knowledge Management	2	III	50	50
312TM	Business Intelligence and Analytics	2	III	50	50
313TM	Designing Organizations for Uncertain Environment	2	III	50	50
314TM	Technology Transfer and Commercialization	2	III	50	50
315TM	Digital Marketing	2	III	50	50
405TM	Innovation, Product Development and Commercialization	2	IV	50	50
406TM	Strategies for information goods and network economies – II	2	IV	50	50
407TM	Technology Use and Assessment	2	IV	50	50
408TM	Product Strategies for High Technology Companies – II	2	IV	50	50
409TM	Systems & Technologies for Knowledge Management	2	IV	50	50
410TM	Strategic Management of Intellectual Property Rights	2	IV	50	50
411TM	Change , Creativity & Innovation	2	IV	50	50
412TM	Seminar on Managing Emerging technologies	2	IV	50	50
413TM	Marketing of High Technology Products	2	IV	50	50

Note: Each Subject Elective Course is a Half Credit course of 30 hours. Out of 30 hours 25 hours shall be devoted to teaching – learning sessions and 5 hours for evaluation/projects. 50 marks shall be devoted for concurrent evaluation to be carried out by the Institute.

Note: Number of Sessions provided in the detailed syllabus in Annexure II for each course are indicative and not prescriptive in nature. They indicate the clock hours allocated for teaching and evaluation/project. However under the CBCS LTP pattern faculty has the liberty to modify the same in the best interest of the learners.

Note:

- a) *In the detailed syllabus, Number of Sessions indicated are as follows: 7 + 2 indicates 7 teaching sessions and 2 evaluation /project sessions. Kindly note that the numbers indicated are indicative and not prescriptive.*
- b) *Faculty members and students should refer to the latest edition of the relevant books, wherever such latest editions are available.*

ANNEXURE II - Detailed Syllabus

MBA SYLLABUS: SEMESTER I

University of Pune

Semester	I	Specialization	NA
Course Code	101	Type	Generic - Core
Course Title	Accounting For Business Decisions		

Course Objectives:

1	To understand the basic concepts of financial accounting, cost accounting and management accounting
2	To know various tools from accounting and cost accounting which would facilitate the decision making
3	To develop analytical abilities to face the business situations

Syllabus:

Unit Number	Contents	Number of Sessions
1	Basic Concepts: Overview of Financial Accounting, Cost Accounting and Management Accounting, Role of each in a business organization, Difference between financial, cost and management accounting, Basic Concepts of cost accounting, classification and analysis of costs, Relevant and irrelevant costs, differential costs, Role of management accounting in the global business environment.	7+2
2	Understanding of Financial Statements: Various concepts and conventions of financial accounting Preparation of financial statements of proprietary concern, Understanding financial statements of partnership firms, Understanding financial statements of limited companies under revised schedule VI of Companies Act, Objectives of financial statements.	8+2
3	Cost Sheet and elements of cost: Preparation of Cost Sheet, Elements of costs, Material cost control, Procurement, Pricing of issues, Inventory control techniques, fixation of various levels , material losses , labour cost control, labour turnover , overheads , collection, classification of overheads.	6+2
4	Cost Control: Budgetary control – Cash Budget and flexible budget. Standard costing – Material and Labour variances only.	6+2
5	Decision making tools: Marginal costing, Make or buy , Optimizing product mix , Break-even point , Cost Volume Profit Analysis, Pricing decisions	8+2

Note:

1	Numerical Problems will be asked on the following topics: Preparation of financial statements of proprietary concern Pricing of issues – FIFO, LIFO, Simple Average and Weighted Average methods Allocation, Apportionment of overheads. Decision Making tools – optimizing product mix, make or buy, acceptance of export order and other Decision Making areas. Computation of breakeven point and related areas. Budgeting – cash and flexible budgets. Computation of material and labour variances.
2	Ideally, the weightage of Theory Questions should be 40% and of numerical problems should be 60% marks in the final question paper.

Learning Resources:		
1	Text Books	Management Accounting – Dr. Mahesh Kulkarni
2	Reference Books	Financial Cost and Management Accounting- .P Periasamy Management Accounting- Madhu Vij Fundamentals of Management Accounting – H. V Jhamb Cost and Management Accounting – M N Arora Financial Accounting for Managers – Mr. Sanjay Dhmiya, Pearson Publications Management Accounting – Mr. Anthony Atkinson, Robert Kaplan, Pearson Management Accounting – Mr. Khan and Mr. Jain, Tata McGraw Hill Financial Accounting part I – Mr. S. N. Maheshwari
3	Supplementary Reading Material	Management Accounting - Mr. Ravi Kishore Accounting for Managers – Dearden and Bhattacharya
4	Websites	Institute of Cost Accountants, Institute of Chartered Accountants
5	Journals	Indian Journal of Finance

Semester	I	Specialization	NA
Course Code	102	Type	Generic - Core
Course Title	Economic Analysis for Business Decisions		

Course Objectives:	
1	To equip the students of management with time tested tools and techniques of managerial economics to enable them to appreciate its relevance in decision making.
2	To explore the economics of information and network industries and to equip students with an understanding of how economics affect the business strategy of companies in these industries.
3	To develop economic way of thinking in dealing with practical business problems and challenges.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Basic Concepts of Economics: Introduction to Economics , Basic Economic Problem, Circular Flow of Economic Activity , Nature of the firm - rationale, objective of maximizing firm value as present value of all future profits, maximizing, satisficing, optimizing, principal agent problem, Accounting Profit and Economic Profit , Role of profit in Market System , Adam Smith and Invisible Hand.	7 + 2
2	Demand Analysis and Forecasting: Determinants of Market Demand at Firm and Industry level – Elasticity of Demand - Market Demand Equation – Use of Multiple Regression for estimating demand – Case study on estimating industry demand (formulating equation and solving with the aid of software expected) Demand and Supply: Market Equilibrium – Pricing under perfect competition, monopolistic competition, Case study on pricing under monopolistic competition , Oligopoly - product differentiation and price discrimination; price- output decision in multi-plant and multi-product firms.	7 + 2
3	Cost Concepts: Cost Concept, Opportunity Cost, Marginal, Incremental and Sunk Costs, Cost Volume Profit Analysis, Breakeven Point, Case Study on marginal costs. Risk Analysis and Decision Making: Concept of risk, Expected value computation, Risk management through Insurance, diversification, Hedging, Decision Tree Analysis, Case Study on Decision tree Technique.	7 + 2
4	Money and Capital Markets in India: Role and Functions of Money Markets, Composition of Money Market, Money Market Instruments , Reserve Bank of India – Functions , Regulatory Role of RBI w.r.t. Currency, Credit and Balance of Payment, Open Market Operations. Role and Functions of Capital Markets, Composition of Capital market, Stock Exchanges in India, Role of SEBI, understanding of stock market quotations in financial press expected.	7 + 2
5	Public Finance Infrastructure: Familiarity with important terms/agencies/approaches/practices related to National Income (such as GDP, PPP, Growth Rate), Foreign Trade (such as GATT, WTO) and union budget (such as Revenue Account, Capital Account, Revenue Deficit, Fiscal Deficit, Plan and Non-plan expenditure) is expected. Understanding of Summarized budget for the current financial year is required (knowledge of detailed budget provisions not required).	7 + 2

Learning Resources:		
1	Text Books	Managerial Economics by Peterson, Lewis, Sudhir Jain, Pearson, Prentice Hall Indian Economy by Datt & Sundaram, 61 st Edition, S Chand Managerial Economics by D. Salvatore, McGraw Hill, New Delhi. Managerial Economics by Pearson and Lewis, Prentice Hall, New Delhi Managerial Economics by G.S. Gupta, T M H, New Delhi. Managerial Economics by Mote, Paul and Gupta, T M H, New Delhi.
2	Reference Books	Managerial Economics by Homas and Maurice, Tata McGraw Hill, 8th Edition Indian Economy by Mishra and Puri, 24th Edition, Himalaya Publishing House Managerial Economics by Analysis, Problems and Cases, P.L. Mehta, Sultan Chand Sons, New Delhi. Managerial Economics by Varshney and Maheshwari, Sultan Chand and Sons, New Delhi. Managerial Economics by Joel Dean, Prentice Hall, USA. Managerial Economics by H L Ahuja, S Chand & Co. New Delhi.
3	Supplementary Reading Material	Economic Times Daily Business Standard Daily Business Today Business India Latest Monetary Policy Latest Fiscal Policy
4	Websites	www.rbi.org.in/home.aspx www.macrosan.org www.finmin.nic.in www.indiabudget.nic.in
5	Journals	Economic and Political Weekly

Semester	I	Specialization	NA
Course Code	103	Type	Generic - Core
Course Title	Legal Aspects of Business		

Course Objectives:

1	To acquaint students with general business law issues to help become more informed, sensitive and effective business leaders.
2	To provide the students with an understanding of fundamental legal issues pertaining to the business world to enhance their ability to manage businesses effectively.

Syllabus:

Unit Number	Contents	Number of Sessions
1	The Indian Contract Act 1871 Essential elements of valid contract Performance and discharge of contract Breach of contract - meaning and remedies Contracts of indemnity - meaning, nature-right of indemnity holder and indemnifier Contract of guarantee – meaning, nature and features – types of guarantee – provisions relating to various types of guarantee. Surety and co-surety – rights and liabilities – discharge of surety Agency – agent and principal, creation of agency – classification of agents – relationship between principal and agent – agent's authority – revocation and renunciation – rights duties and liabilities of agents and principal – termination of agency.	7 + 2
2	Sale of Goods Act 1930 Contract of sale of goods – meaning – essentials of contract of sale – formalities of contract of sale Conditions and warranties Transfer of property or ownership Performance of contract of sale Rights of unpaid seller – rules as to delivery of goods	7 + 2
3	Negotiable Instruments Act, 1881 Negotiable Instruments – meaning – characteristics – types – parties – holder and holder in due course Negotiation and types of endorsements Dishonour of negotiable instruments - noting and protesting Liability of parties on Negotiable Instruments	7 + 2
4	Companies Act 1956 Company – definition – meaning – features and types of companies. Incorporation of a company – memorandum of association, articles of association and prospectus Share Capital- types of share capital – increase/decrease of share capital – buy-back of shares.	7 + 2
5	Other Laws: Consumer Protection Act 1986 – definitions of consumer, consumer dispute-complaint – goods –service – unfair trade practice – consumer dispute redressal agencies Information Technology Act – Digital Signature – Electronic Governance Intellectual Property Laws – Understanding of concepts of patents, copyrights, trademarks and designs	7 + 2

Learning Resources:		
1	Text Books	Elements of Mercantile Law by N.D. Kapoor, Sultan Chand, 32 nd Edition
2	Reference Books	Legal Aspects of Business, Akhileshwar Pathak, Tata McGraw Hill, 4 th Edition Business Law, S.S.Gulshan, Excel Books, 4 th Edition. Business Law for Management, K.R.Bulchandani, Himalaya Publications, revised 6 th Edition. Bare Acts
3	Supplementary Reading Material	Corporate Law Advisor LawZ Legal News & views
4	Websites	www.vakilno1.com www.indiankanoon.org www.sebi.gov.in/ www.companylawonline.com www.claonline.in
5	Journals	Management & Labour studies International Labour Review.

Semester	I	Specialization	NA
Course Code	104	Type	Generic - Core
Course Title	Business Research Methods		

Course Objectives:

1	To understand the concept and process of business research in business environment.
2	To know the use of tools and techniques for exploratory, conclusive and causal research.
3	To understand the concept of measurement in empirical systems.
4	To use statistical techniques for analysis of research data.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>1. Foundations of Research:</p> <p>1.1 Research: – Definition, Why study Business Research? What is good research? Decision Support, Business Intelligence, Research applications in functional areas of Business, Emerging trends in Business research.</p> <p>1.2 Research & the Scientific Method: Characteristics of scientific method.</p> <p>1.3 Steps in Research Process</p> <p>1.4 Concept of Scientific Enquiry: - Formulation of Research Problem – Management Question – Research Question – Investigation Question</p> <p>1.5 Research Proposal: – Elements of a Research Proposal, Drafting a Research Proposal, Evaluating a research proposal (Students are expected to draft and evaluate a real life research proposal)</p>	5 + 1
2	<p>2. Research Design:</p> <p>2.1 Concept, Features of a good research design, Use of a good research design</p> <p>2.2 Qualitative research and Quantitative research approaches, Comparison - Pros and Cons of both approaches.</p> <p>2.3 Exploratory Research Design: Concept, Types: Qualitative techniques - Projective Techniques, Depth Interview, Experience Survey, Focus Groups, Observation.</p> <p>2.4 Descriptive Research Designs: Concept, types and uses. Concept of Cross-sectional and Longitudinal Research</p> <p>2.5 Experimental Design: Concept of Cause, Causal relationships, Concept of Independent & Dependent variables, concomitant variable, extraneous variable, Treatment, Control group. (Elementary conceptual treatment expected)</p> <p>2.6 Hypothesis: Qualities of a good Hypothesis –Framing Null Hypothesis & Alternative Hypothesis. Concept of Hypothesis Testing - Logic & Importance</p>	7 + 2

3	<p>3. Measurement & Data:</p> <p>3.1 Concept of Measurement: what is measured? Problems in measurement in management research - Validity and Reliability. Levels of measurement - Nominal, Ordinal, Interval, Ratio.</p> <p>3.2 Attitude Scaling Techniques: Concept of Scale – Rating Scales viz. Likert Scales, Semantic Differential Scales, Constant Sum Scales, Graphic Rating Scales – Ranking Scales – Paired Comparison & Forced Ranking - Concept and Application.</p> <p>3.3 Types of Data - Secondary Data: Definition, Sources, Characteristics, Searching world wide web for data, Issues to be considered for secondary data, sufficiency, adequacy, reliability, consistency.</p> <p>3.4 Types of Data - Primary Data: Definition, Advantages and disadvantages over secondary data,</p> <p>3.5 Questionnaire Method: Questionnaire Construction - Personal Interviews, Telephonic survey Interviewing, Email/Internet survey, online survey sites, their utility, constraints</p>	7 + 3
4	<p>4. Sampling:</p> <p>4.1 Basic Concepts: Defining the Universe, Concepts of Statistical Population, Sample, Characteristics of a good sample. Sampling Frame (practical approach for determining the sample frame expected), Sampling errors, Non Sampling errors, Methods to reduce the errors, Sample Size constraints, Non Response.</p> <p>4.2 Probability Sample: Simple Random Sample, Systematic Sample, Stratified Random Sample, Area Sampling & Cluster Sampling.</p> <p>4.3 Non Probability Sample: Judgment Sampling, Convenience Sampling, Purposive Sampling, Quota Sampling & Snowballing Sampling methods. Determining size of the sample - Practical considerations in sampling and sample size, (sample size determination formulae and numerical not expected)</p>	6 + 2

5	<p>5. Data Analysis & Report Writing:</p> <p>5.1 Data Analysis : Editing, Coding, Univariate analysis - Tabular representation of data, frequency tables, Construction of frequency distributions and their analysis in the form of measures of central tendency – Mean, Median and Mode; their relative merits and demerits,</p> <p>5.2 Graphical Representation of Data: Appropriate Usage of Bar charts, Pie charts, Histogram, Leaf and stem, Candle stick, Box plots. (Use of MS Excel)</p> <p>5.3 Bivariate Analysis: Cross tabulations, Use of percentages, Bivariate Correlation Analysis - meaning & types of correlation, Karl Person's coefficient of correlation and spearman's rank correlation; Scatter plots, Chi-square test including testing hypothesis of association, association of attributes. (Formulae and calculation are not expected. Interpretation of the given data and scenario analysis is expected for appropriate managerial decision inferences to be drawn.)</p> <p>5.4 Linear Regression Analysis: Meaning and two lines of regression; relationship between correlation and regression co-efficient (Formulae and calculation are not expected. Interpretation of the given data and scenario analysis is expected for appropriate managerial decision inferences to be drawn.)</p> <p>5.5 Test of Significance: Small sample tests: t (Mean, proportion) and F tests, Z test, Non-parametric tests: Binomial test of proportion, Randomness test; Analysis of Variance: One way and two-way Classifications (Formulae and calculation are not expected. Interpretation of the given data and scenario analysis is expected for appropriate managerial decision inferences to be drawn.)</p> <p>5.6 Research Reports: Structure of Research report, Report writing and Presentation.</p> <p><i>Note: Extensive use of MS Excel is expected in learning unit no. 5</i></p>	10 + 2
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Learning Resources:		
1	Text Books	Business Research Methods by Donald Cooper & Pamela Schindler, TMGH, 9 th Edition. Business Research Methods by Alan Bryman & Emma Bell, Oxford University Press, 2 nd Edition Research Methodology by C.R.Kothari, New Age International Publication, 2nd Edition Research Methods for Social Work by Allen, Earl R. Babbie, Cengage, 7 th Edition Research Methods in Business Studies: A Practical Guide by Pervez Ghauri, Dr Kjell Gronhaug, FT Prentice Hall
2	Reference Books	The Practice of Social Research by Earl R. Babbie, Wadsworth, 13 th Edition Business Research Methods by William G. Zikmund, Barry J. Babin, Jon C. Carr, Mitch Griffin, Cengage Learning, 8 th Edition Approaches to social research by Royce Singleton, Bruce C. Straits, Margaret Miller Straits, Oxford University Press, 2 nd Edition Handbook of Research Design and Social Measurement by Delbert Charles Miller, Neil J. Salkind, Sage Publication, 6 th Edition Research Methods: The Basics by Nicholas S. R. Walliman, Nicholas Walliman, Routledge, 1 st Edition
3	Supplementary Reading Material	Business Research Methods by Naval Bajpai, Pearson, 1 st Edition
4	Websites	http://www.socialresearchmethods.net http://www.oup.com/uk/orc/bin/9780199202959
5	Journals	The Nature, Social Organization and Promotion of Management Research: Towards Policy by David Tranfield and Ken Starkey, British Journal of Management, Vol. 9, 341–353 (1998) The Case for Qualitative Research by Gareth Morgan & Linda Smircich, Academy of Management Review 1980, Vol. 5, No. 4, 491-500 Beyond the Qualitative Interview: Data Preparation and Transcription by Eleanor Mclellan, Kathleen M. Macqueen & Judith L. Neidig, Field Methods, Vol. 15, No. 1, February 2003, 63–84 The Coming of Age for Qualitative Research: Embracing the Diversity of Qualitative Methods by Bansal, Pratima (Tima); Corley, Kevin. Academy of Management Journal. Apr 2011, Vol. 54 Issue 2, p233-237 Social Science Research Methods in Internet Time by Karpf, David. Information, Communication & Society. Jun 2012, Vol. 15 Issue 5, p639-661 A Review of Research Methods in Online and Blended Business Education: 2000-2009 by Arbaugh, J. B.; Hwang, Alvin; Pollack, Birgit Leisen., Academy of Management Annual Meeting Proceedings. 2010, p1-6 Research Methods in Economics and Business by Roberts, Harry V. Journal of Marketing Research Aug 1964, Vol. 1 Issue 3, p88-90 Counterfactuals and Hypothesis Testing in Political Science Author(s): James D. Fearon, The Johns Hopkins University Press Vol. 43, No. 2 (Jan., 1991), pp. 169-195 Statistical Sampling Techniques and Marketing Research by Cassady Jr., Ralph. Journal of Marketing. Apr 1945, Vol. 9 Issue 4, p317-341 A Study of Selected Opinion Measurement Techniques by Kassarijian, Harold H.; Nakanishi, Masao. Journal of Marketing Research, May 67, Vol. 4 Issue 2, p148-153

Semester	I	Specialization	NA
Course Code	105	Type	Generic - Core
Course Title	Organizational Behaviour		

Course Objectives:	
1	To develop an understanding of the behavior of individuals and groups inside organizations
2	To enhance skills in understanding and appreciating individuals, interpersonal, and group process for increased effectiveness both within and outside of organizations.
3	To develop theoretical and practical insights and problem-solving capabilities for effectively managing the organizational processes.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Fundamentals of OB</p> <p>Definition, scope and importance of OB, Relationship between OB and the individual, Evolution of OB, Theoretical framework (cognitive, behavioristic and social cognitive), Limitations of OB.</p>	7 + 2
2	<p>Individual Process And Behavior:</p> <p>2.1 Attitude: Importance of attitude in an organization, Right Attitude, Components of attitude, Relationship between behavior and attitude, Developing Emotional intelligence at the workplace, Job attitude, Barriers to changing attitudes</p> <p>2.2 Personality and values: Definition and importance of Personality for performance, The Myers-Briggs Type Indicator and The Big Five personality model, Significant personality traits suitable to the workplace (personality & job – fit theory), Personality Tests and their practical applications.</p> <p>2.3 Perception: Meaning and concept of perception, Factors influencing perception, Selective perception, Attribution theory, Perceptual process, Social perception (stereotyping and halo effect).</p> <p>2.4 Motivation: Definition & Concept of Motive & Motivation, The Content Theories of Motivation (Maslow's Need Hierarchy & Herzberg's Two Factor model Theory), The Process Theories (Vroom's expectancy Theory & Porter Lawler model), Contemporary Theories- Equity Theory of Work Motivation</p>	8 + 2
3	<p>Interpersonal Processes And Behavior, Team And Leadership Development</p> <p>3.1 Foundations of Group Behavior: The Meaning of Group & Group behavior & Group Dynamics, Types of Groups, The Five -Stage Model of Group Development</p> <p>3.2 Managing Teams: Why Work Teams, Work Teams in Organization, Developing Work Teams, Team Effectiveness & Team Building</p> <p>3.3 Leadership: Concept of Leadership, Styles of Leadership, Trait Approach, Contingency Leadership Approach, Contemporary leadership, Meaning and significance of contemporary leadership, Concept of transformational leadership, Contemporary issues in leadership, Contemporary theories of leadership, Success stories of today's Global and Indian leaders.</p>	8 + 2

4	Organization System: Organizational Culture: Meaning & Definition of Organizational Culture, Creating & Sustaining Organizational Culture, Types of Culture (Strong vs. Weak Culture, Soft vs. Hard Culture & formal vs. Informal Culture) , Creating Positive Organizational Culture, Concept of Workplace Spirituality.	5 + 2
5	Managing Change : 5.1 Organizational Change: Meaning, definition & Nature of Organizational Change, Types of Organizational change, Forces that acts as stimulants to change. 5.2 Implementing Organizational Change: How to overcome the Resistance to Change, Approaches to managing Organizational Change, Kurt Lewin's- Three step model, Seven Stage model of Change & Kotter's Eight-Step plan for Implementing Change, Leading the Change Process, Facilitating Change, Dealing with Individual & Group Resistance, Intervention Strategies for Facilitating Organizational Change, Methods of Implementing Organizational Change, Developing a Learning Organization.	7 + 2

Learning Resources:

1	Text Books	Organizational Behaviour by Robins Organizational Behaviour by Nelson & Quick Organizational Behaviour by Fred Luthans Organizational Behaviour by Stephen Robins, Timothy Judge, Neharika Vohra Organizational Behaviour by M N Mishra Organizational Behaviour by K Ashwathappa
2	Reference Books	Understanding OB by Uday Pareek Change & Knowledge Management by Janakiram, Ravindra and Shubha Murlidhar
3	Supplementary Reading Material	Contemporary Leadership Theories: Enhancing the Understanding of the complexity, subjectivity and dynamic of leadership by Ingo Winkler Organizational Performance in a Nutshell by Daniel M. Wentland
4	Websites	http://papers.ssrn.com http://www.nwlink.com/~donclark/leader/leadob.html
5	Journals	Organizational Behavior and Human Decision processes Journal of Organizational Behavior Journal of Human Values International Studies of Management & Organization

Semester	I	Specialization	NA
Course Code	106	Type	Generic - Core
Course Title	Basics of Marketing		

Course Objectives:	
1	To introduce marketing as a business function and a philosophy
2	To emphasize importance of understanding external environment in marketing decision making
3	To expose students to a systematic frame work of marketing & implementations and to highlight need for different marketing approaches for services, goods, and for household consumers, organizational buyers.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Introduction to Marketing</p> <p>1.1 Definition & Functions of Marketing: Scope of Marketing, Core concepts of marketing such as Need, Want, Demand, Customer Value, Exchange, Customer & Consumer, Customer Satisfaction, Customer Delight, Customer Loyalty, Marketing v/s Market</p> <p>1.2 Markets: Definition of Market, Competition, Key customer markets, Marketplaces, Market spaces, Metamarkets</p> <p>1.3 Company Orientation towards Market Place: Product, Production, Sales, Marketing, Societal, Transactional, Relational, Holistic Marketing Orientation. Selling versus Marketing. Concept of Marketing Myopia.</p> <p>1.4 Introduction to the Concept of Marketing Mix: Origin & Concept of Marketing Mix and Definitions of 7Ps. People, Processes & Physical Evidence</p> <p>1.5 New Marketing Realities: Major Societal Forces, New Consumer Capabilities & New Company Capabilities.</p>	10 + 2
2	<p>Consumer Behavior:</p> <p>2.1 Meaning & importance of consumer behavior. Comparison between Organizational Buying behavior and consumer buying behavior, Buying roles,</p> <p>2.2 Five steps buyer decision process</p>	6 + 2
3	<p>Marketing Environment:</p> <p>3.1 Concept of Environment: Macro and Micro, Need for analyzing the Marketing Environment</p> <p>3.2 Macro Environment: Analyzing the Economic, Socio-cultural, Demographic, Political – Legal - Regulatory, Technical, Environmental environments.</p> <p>3.3 Linkage of Marketing Function with all functions in the organization.</p> <p>3.4 Concept of Market Potential & Market Share</p>	6 + 2
4	<p>Segmentation, Target Marketing & Positioning:</p> <p>4.1 Marketing as Value Delivery Process: Traditional & modern approaches</p> <p>4.2 Segmentation: Definition, Need for segmentation, Benefits of segmentation to marketers, Bases for market segmentation of consumer goods & industrial goods, Criteria for effective segmentation.</p> <p>4.3 Levels of Market Segmentation: Segment Marketing, Niche Marketing, Local Marketing, Mass Marketing.</p> <p>4.4 Target Market : Concept of Target Market and criteria for selection of target market</p> <p>4.5 Positioning: Concept of Differentiation & Positioning, Introduction to the concepts of Value Proposition & USP.</p>	8 + 2

5	<p>Product – The First Element of Marketing Mix:</p> <p>5.1 Product : Meaning of product, Goods & Services Continuum, Classification of consumer products – Convenience, Shopping, Specialty, Unsought, classification of industrial products – material & parts, capital items, supplies & services</p> <p>5.2 Product Levels: The customer value hierarchy</p> <p>5.3 Product Mix: Width, Depth, Consistency & Product line.</p>	5 + 2
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Learning Resources:		
1	Text Books	Marketing Management - Philip Kotler, Kevin Lane Keller, Abraham Koshy, Mithileshwar Jha, Pearson , 13 th Edition Marketing Management, Rajan Saxena, TMGH, 4 th Edition Marketing by Lamb Hair Sharma, Mc Daniel Cengage Learning 2012
2	Reference Books	Principles of Marketing – Philip Kotler, Gary Armstrong, Prafulla Agnihotri, Ehasan Haque, Pearson, 13 th Edition Marketing Management- Text and Cases, Tapan K Panda, 2 nd Edition, Excel Books Marketing Management, Ramaswamy & Namakumari, Macmillan, 4 th Edition.
3	Supplementary Reading Material	Marketing Whitebook (Latest Edition) Brand Equity Supplement of The Economic Times Brand Wagon Supplement of The Financial Express Strategist Supplement of Business Standard
4	Websites	NCAER - http://www.ncaer.org/ 2011 Census of India Reports - http://www.censusindia.gov.in/ http://www.marketingpower.com/Pages/default.aspx (American Marketing Association)
5	Journals	IIMB Management Review Vikalpa

Semester	I	Specialization	NA
Course Code	107	Type	Generic – Elective
Course Title	Management Fundamentals		

Course Objectives:

1	To explain the various concepts of management
2	To make the students understand the contemporary management practices
3	To highlight professional challenges that managers face in various organization
4	To enable the students to appreciate the emerging ideas and practices in the field of management.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Introduction to Principles of Management:</p> <p>1.1 Basic Concepts: Definition of Management, Contribution of F.W.Taylor, Henri Fayol, Elton Mayo, Mary Parker Follet, Rensis Likert, Chestard Bernard, Douglas McGregor, Peter Drucker, Michael Porter and C.K. Prahalad</p> <p>1.2 Approaches to Management: Scientific Approach, Systems Approach and Contingency Approach.</p> <p>1.3 Managerial Competencies: Communication, team work, planning and administrative, strategic and global competencies;</p>	6 + 1
2	<p>2.1 Organization: Formal and Informal, Line and staff relationship, Centralization Vs. Decentralization, Basic issues in organizing, work specialization, chain of command delegation, span of management, Organization Structure - bases for departmentation.</p> <p>2.2 Organizational Culture: Cultural Diversity, Multi Ethnic Workforce, Organizing Knowledge resource.</p>	6 + 1
3	<p>3.1 Planning: Nature & elements of planning, planning types and models, planning in learning organizations; Types, Steps, MBO, MBE, Planning Premises.</p> <p>3.2 Decision Making: Risk and Uncertainty, Decision Trees, Decision making process, models of decision making, increasing participation in decision-making, decision-making creativity.</p>	5 + 1
4	<p>4.1 Controlling: Process, Standards and Bench Marking - Co-ordination-Principles of Co-ordination-Inter-dependence.</p>	4 + 1
5	<p>5.1 Challenges in Management: Change Management -Timing of Change-Reaction to change-Planning organizational Change-Technological Change-Effective use of Communication Devices and IT.</p>	4 + 1

Learning Resources:		
1	Text Books	Fundamentals of Management by Robbins, S.P. and Decenzo, D.A., Pearson Education Asia, New Delhi. Management by Koontz and Wechrich, TMGH Management by Stoner, et. al., Prentice Hall of India, New Delhi.
2	Reference Books	Management by Hellregel, Thomson Learning, Bombay Management by Robbins & Coulter, Prentice Hall of Hall of India, New Delhi. Management - Text & Cases by Satya Raju, PHI, New Delhi. Management by Richard L. Draft, Thomson South-Western
3	Supplementary Reading Material	The Frontiers of Management by Peter Drucker, Harvard Business Review Press. The Definitive Drucker by Elizabeth Haas Edersheim, TMGH. Technology, Management and Society by Peter Drucker, Harvard Business Review Press. The Drucker Lectures: Essential Lessons on Management, Society and Economy Edited by Rick Wartzman, TMGH.
4	Websites	http://www.druckerinstitute.com/link/about-peter-drucker/
5	Journals	The Five Minds of a Manager by Gosling, Jonathan; Mintzberg, Henry. Harvard Business Review, Nov2003, Vol. 81 Issue 11

Semester	I	Specialization	NA
Course Code	108	Type	Generic - Elective
Course Title	Business Communication Lab		

Course Objectives:

1	To acquaint the students with fundamentals of communication and help them to transform their communication abilities.
2	To help the students to acquire some of the necessary skills to handle day-to-day managerial responsibilities, such as - making speeches, controlling one-to-one communication, enriching group activities and processes, giving effective presentations, writing letters, memos, minutes, reports and advertising, and maintaining one's poise in private and in public.
3	To build the students' confidence and to enhance competitiveness by projecting a positive image of themselves and of their future.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>1.1 Introduction to Managerial Communication: Principles of effective communication, Target group profile, Barriers of Communication, Reading Skills, Listening, Feedback.</p> <p>1.2 Principles of Nonverbal Communication: Professional dressing and body language. Role Playing, Debates and Quiz. Types of managerial speeches - Presentations and Extempore - speech of introduction, speech of thanks, occasional speech, theme speech.</p> <p>1.3 Group communication: Meetings, group discussions.</p> <p>1.4 Other Aspects of Communication: Cross Cultural Dimensions of Business Communication Technology and Communication, Ethical & Legal Issues in Business Communication.</p>	3 + 7
2	<p>Managerial Writing: Business letters, Routine letters, Bad news and persuasion letters, sales letters, collection letters, Maintaining a Diary, Resume/CV, job application letters, proposals. Internal communication through - notices, circulars, memos, agenda and minutes, reports. Case Studies. Exercises on Corporate Writing, Executive Summary of Documents, Creative Writing, Poster Making, Framing Advertisements, Slogans, Captions, Preparing Press Release and Press Notes</p>	2 + 5
3	<p>Effective Presentations: Principles of Effective Presentations, Principles governing the use of audiovisual media.</p>	1 + 1
4	<p>Interview Skills: Mastering the art of giving interviews in - selection or placement interviews, discipline interviews, appraisal interviews, exit interviews, web /video conferencing, tele-meeting.</p>	2 + 3
5	<p>Report Writing: Objectives of report, types of report, Report Planning, Types of Reports, Developing an outline, Nature of Headings, Ordering of Points, Logical Sequencing, Graphs, Charts, Executive Summary, List of Illustration, Report Writing.</p>	2 + 4

Note:

The emphasis of the entire subject should be on practical aspects.

Learning Resources:		
1	Text Books	Essentials of Business Communication by Rajendra Pal & J.S. Korlahalli, Sultan Chand & Sons, 8th Edition Business Communication by Meenakshi Raman & Prakash Singh, Oxford, 2006 Basic Business Communication Skills for Empowering the Internet Generation by Lesikar, R.V. & Flatley, M.E., TMGH, New Delhi. The Essence of Effective Communications by Ludlow, R. & Panton, F., Prentice Hall of India Pvt. Ltd.
2	Reference Books	Communication by C. S. Rayadu, HPH, 8th Revised Edition, 2007 Business Correspondence & Report Writing by R. C. Sharma & Krishna Mohan, Tata McGraw Hill, 4th Edition, 2011 Developing Communication Skills by Macmillan, 2nd Edition Professional Presentations by Malcolm Goodale, Cambridge University Press, South Asian Edition
3	Supplementary Reading Material	Business Communication - Harvard Business Essentials Series, HBS Press Effective Communication by Adair, J., Pan Macmillan Excellence in Business Communication by Thill, J. V. & Bovee, G. L., McGraw Hill, New York. Business Communications: From Process to Product by Bowman, J.P. & Branchaw, P.P., Dryden Press, Chicago.
4	Websites	www.businesscommunicationskills.com www.kcittraining.com www.mindtools.com www.businessstrainingworks.com www.businesscommunication.org
5	Journals	Journal of Business Communication

Semester	I	Specialization	NA
Course Code	109	Type	Generic - Elective
Course Title	MS Excel and Advanced Excel Lab		

Course Objectives:

1	To familiarize Students with basic to intermediate skills for using Excel in the classroom vis-à-vis Business Applications
2	To provide students hands on experience on MS Excel Utilities
3	To gain proficiency in creating solutions for Data Management and Reporting

Syllabus:

Unit Number	Contents	Number of Sessions
1	1.1 Understanding Excel's Files, Ribbon and Shortcut: Create a workbook , Enter data in a worksheet , Format a worksheet , Format numbers in a worksheet , Create an Excel table , Filter data by using an AutoFilter , Sort data by using an AutoFilter	1
	1.2 Essential Worksheet Operations: Using Help (F1), Key Board Shortcuts	1
	1.3 Working with Cells and Ranges: Formatting Cells, Name Manager	1
	1.4 Visualizing Data Using Conditional Formatting: Apply conditional formatting	1
	1.5 Printing Your Work: Print a worksheet , Using Print Preview & Other Utilities	1
	Lab based Evaluation	1
2	2.1 Working with Dates and Times & Text: Working with Dates & Time, Creating Formulas that Manipulate Text – Upper, Proper, Lower, Concatenate, Text to column	1
	2.2 Creating Formulas That Count, Sum, Subtotal: Create a formula, Use a function in a formula	2
	2.3 Creating Formulas That Look Up Values: VLookup, HLookup, Match & Index	2
	Lab based Evaluation	1
3	3.1 Creating Formulas for Financial Applications: Introduction to formulas e.g. PV, PMT, NPER, RATE, Creating Balance Sheet, Investment Calculations, Depreciation calculations	3
	3.2 Creating Charts and Graphics: Chart your data, Creating Sparkline Graphics, Using Insert Tab Utilities	2
	Lab based Evaluation	1
4	4.1 Using Custom Number Formats: Right click, Format Cells window	1
	4.2 Using Data Tab and Data Validation: Getting external Data, Remove Duplicates, Apply data validation & using utilities from Data Tab	1
	4.3 Protecting Your Work: Using Review Tab Utilities	1
	4.4 Performing Spreadsheet What-If Analysis: Create a macro, Activate and use an add-in	2
	Lab based Evaluation	1
	5.1 Analyzing Data with the Analysis Tool Pak: Anova,Correlation, Covariance, Descriptive Statistics, Histogram, Random Number Generation, Rank and Percentile, Regression, t-Test, Z Test	2
	5.2 Using Pivot Tables for Data Analysis: Create Data Base for Pivot, Analysing Data with Pivot Tables, Producing Report with a Pivot Table	3
	Lab based Evaluation	1

Learning Resources:		
1	Text Books	Excel 2010 Bible [With CDROM]by John Walkenbach, John Wiley & Sons, 2010 Edition
2	Reference Books	Excel 2007 for Dummies by Greg Harvey New Perspectives on Microsoft Office Excel 2007
3	Supplementary Reading Material	www.hrdiap.gov.in/Downloads/04.MS%20Excel.pdf www.stern.nyu.edu/~jsimonof/classes/1305/pdf/excelreg.pdf www.goodwin.edu/computer_resources/pdfs/excel_2010_tutorial.pdf www.microagecs.com/apps/training/courseware/excel.pdf www.lfpl.org/jobshop/docs/Intermediate-Excel.pdf
4	Websites	http://office.microsoft.com/en-us/ http://office.microsoft.com/en-us/excel-help/excel-help-and-how-to-FX102693827.aspx http://office.microsoft.com/en-us/excel/ http://office.microsoft.com/en-us/excel-help/excel-functions-by-category-HP005204211.aspx http://www.baycongroup.com/el0.htm http://spreadsheets.about.com/od/tipsandfaqs/f/excel_use.htm http://www.computerhope.com/shortcut/excel.htm http://www.techonthenet.com/excel/formulas/ http://www.functionx.com/excel/ http://people.usd.edu/~bwjames/tut/excel/ http://spreadsheets.about.com/od/excelfunctions/Using_Excel_Functions_in_Spreadsheets.htm http://www.computergaga.com/excel/functions/
5	Journals	http://www.elijournals.com/products/showproduct.asp?prodID=24&catID=1 http://www.spyjournal.biz/views/excel

Semester	I	Specialization	NA
Course Code	110	Type	Generic - Elective
Course Title	Selling and Negotiating SkillsLab		

Course Objectives:

1	To imbibe in the students , critical sales competencies that drive buying decisions.
2	To give insights into how to boost individual and organizational productivity through effective sales lead management.
3	To introduce basic theoretical principles and practical steps in the negotiating process.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Nature & Role of Selling : Importance of Selling. Role in the context of organization – survival and growth.</p> <p>Types of Selling : Differences in selling situations, New business versus service selling, Newton's classification of sales types, McMurry & Arnold's classification of selling types, Consumer indirect selling, Industrial selling, Missionary, Sales Team/group selling Merchandising, Telesales, Franchise selling, International selling.</p>	3 + 1
2	<p>Attributes of a Good Salesperson : Personality & physical characteristics, Enthusiasm, Confidence, Intelligence, Self-worth, Knowledge-product , Competition, organization, market, customer, territory; Communication skills, Persuasive skills. <i>(To be supplemented by live exercises on personal selling)</i></p>	4 + 1
3	<p>Personal Selling Skills : The opening - Need & problem identification - The presentation & demonstration - Dealing with objections – Negotiations - Closing the sale - Follow up <i>(To be supplemented by live exercises on personal selling)</i></p>	7 + 1
4	<p>Negotiation Skills : Goal , Collaborative / Win –Win not compromise, Pyramid of success: Power, Time, and Information. Opponent : Visceral or Idea, <i>(To be supplemented by live exercises on personal selling)</i></p>	7 + 1
5	<p>Different Phases of Negotiation: Pre-negotiation – opening – information sharing – problem solving – agreement. Breakdown in negotiation – barriers that create impasse – overcoming barriers – people problem – mediation – arbitration – ethics.</p>	4 + 1

Learning Resources:		
1	Text Books	Selling & Sales Management by Geoffrey Lancaster & David Jobber, Macmillan India Ltd. Negotiation: Communication for diverse settings by Michael L Spangle and Myra Isenhardt, Sage South Asia Edition. The Sales Bible: The Ultimate Sales Resource by Jeffrey Gitomer, Wiley India.
2	Reference Books	Sales Management by Bill Donaldson, Palgrave Publications You can negotiate anything by Herb Cohen Managing Sales Leads by Crocker and Obermayer, American Marketing Association
3	Supplementary Reading Material	How to win friends and influence People – Dale Carnegie The Art of Closing the Sale by Brian Tracy, Pearson Education.
4	Websites	www.professionalsalestips.com www.eyeonsales.com www.semi.org www.salescareersonline.com
5	Journals	Journal of Personal Selling & Sales Management Sales and Marketing by Nielsen Business Media

Semester	I	Specialization	NA
Course Code	111	Type	Generic - Elective
Course Title	Business Government and Society		

Course Objectives:

1	To provide insights to the students about the Business – Government relations
2	To help students understand the Government's role in the regulatory domain.
3	To assist students in appreciating the social aspects of business.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Roles of Business, Government, and Society: Interdependence and Conflict, Regulation of Business, Functions of State; Economic roles of government; Government and legal environment; Economic roles of Government in India; Indian experience with overall and sectoral growth, Inter-sectoral linkages and role of foreign direct investment ,The Constitutional environment , Macroeconomic crises: explaining the experiences around the world.	5 + 1
2	Poverty, Inequality and Economic Growth: Industrial Development, Rural-Urban Dynamics, Population and Development, Finance for Development, Trade and Development, State and the Market, Privatization and Regulation, Institutions and Growth	5 + 1
3	Public Private Partnerships: The Rationale for Public Private Partnerships, Different Kinds of Public Private Partnerships with a special emphasis on the Build Operate and Transfer Model (BOT), Issues in Regulation that come about with privatization, Pricing mechanisms available to a regulator to ensure universal access and efficiency, Discussion of the privatization experience in different sectors, water, electricity, telecommunication, and railways with a special emphasis on India.	5 + 1
4	Multinational Corporations: Perspectives on Globalization, Globalization: The MNC and TNC Organizations, Globalization of Brands, Globalization of the Indian Business and Firms, Coping with Global Competition, Conflict with Nation States. Business in a Global Environment: Business as Blending of People Technology and Ethical Behaviour, Achieving Business Success through Social Responsibilities.	5 + 1
5	Changing Workplace: Influence of demography, influence of technology, gender issues, social justice and affirmative action, Industrial Relations.	5 + 1

Learning Resources:		
1	Text Books	Business, Government and Society: A Managerial Perspective by John Steiner, George Steiner, Tata McGraw Hill Business, Government, and Society by Douglas E. Greer, Prentice Hall , 3 rd Edition
2	Reference Books	Business and Its Environment by David P., International Edition, 7 th Edition
3	Supplementary Reading Material	Milton Friedman "The Social Responsibility of Business is to Increase its Profits", New York Times Magazine, September 13, 1970. Economic Times Daily Business Standard Daily
4	Websites	www.epw.in www.business.gov.in
5	Journals	Economic and Political Weekly Corporate Governance Academy of Management Journal Harvard Business Review

Semester	I	Specialization	NA
Course Code	112	Type	Generic - Elective
Course Title	Leadership Lab		

Course Objectives:

1	To give students understanding of good Leadership Behaviours and gaining insight into their Patterns, Beliefs and Attitude
2	To give students hands on experience in Empowering, Motivating and Inspiring Others and Leading by Example

Syllabus:

Unit Number	Contents	Number of Sessions
1	Students are divided in group of 5 students each. Students identify 12 Leaders at different levels from industry, contact them in person, prepare their profiles by interviews and observations and present it to the class	6
2	With the help of games and activities bring out observations on Leadership qualities and traits. The games and activities shall focus on students; Developing leadership skills Raising awareness of group and people skills Developing empowering style of leadership Compile reflections of the students on Leadership qualities such as ; Enthusiasm, Integrity, Toughness, Fairness, Warmth, Humility, Confidence&Fostering Collaboration, Managing Conflict, Using Diversity, Risking Innovation etc.	20
3	Write reviews on articles / books written by or on leaders from various fields and debate and discuss the same in the class (Bring out the leadership traits, styles and strengths) e.g. Mahatma Gandhi, APJ Abdul Kalam, Jack Welch, Steve Jobs, JRD Tata, Ratan Tata, Baba Amte, etc.	5

Learning Resources:		
1	Text Books	Leadership Development Activities, John Adair, 2 nd Edition Jaico Publication Leadership Games, Stephen S Kogan, Response Books
2	Reference Books	Mastering Leadership, 2 nd Edition, Michael Williams, Viva Books Positive Leadership, Mike Pegg, Management Books 2000 Cases in Leadership, W Glenn Rowe, Sage Publications Introducing Leadership, David Pardey, Butterworth-Heinemann Leading Change, John P Kotter, HBP Leadership Research Findings, Practice & Skills, Andrew J DuBryn, BIZTantra Leadership Project & Human Capital Management, John McManus, Butterworth-Heinemann Innovative Leader, Paul Sloane, Kogan Page Leadership Coaching, Edited By Jonathan Passmore, Kogan Page EQ & Leadership, P T Joseph, SJ TMG Making Sense of Leadership, Esther Cameron & Mike Green, Kogan Page Case Studies on Leadership, Edited By Menaka Rao & Sanghamitra Bhattacharya, ICFAI Books
3	Supplementary Reading Material	The New Leaders, Daniel Goleman, Sphere Publications The DNA of Leadership, Judith E Glaser, Platinum Press The New Art of the Leader, William A Cohen, Viva Books Strategic Leadership, John Adair, Kogan Page Authentic Leadership, Warren Bennis, Wiley India Pvt. Ltd. Leadership in the Era of Economic Uncertainty, Ram Charan, TMGH 21 Leaders for the 21 st Century, Fons Trompenaars & Charles Hampden – Turner, TMGH
4	Websites	http://www.nsba.org/sbot/toolkit/LeadQual.html http://psychology.about.com/od/leadership/a/leadstyles.htm http://en.wikipedia.org/wiki/Leadership_styles http://psychology.about.com/od/leadership/p/leadtheories.htm http://en.wikipedia.org/wiki/Leadership http://www.inspirational-quotes.info/leadership.html http://www.savingfreak.com/funny-leadership-quotes/ http://wiki.answers.com/Q/What_are_the_biggest_problems_facing_the_world_in_21st_century http://smallbusiness.chron.com/leadership-problems-business-2977.html http://www.jimclemmer.com/management-vs.-leadership.php http://www.management-issues.com/2006/5/25/opinion/the-difference-between-management-leadership.asp http://www.businessballs.com/leadership.htm
5	Journals	www.ppc.sas.upenn.edu/leadershipreadingsschachar.pdf www.oxfordleadership.com/journal/vol1_issue2/brown_hurley.pdf www.ccl.org/leadership/pdf/research/cclLeadershipDevelopment.pdf www.innovation.cc/scholarly-style/fairholm3.pdf www.fhsu.edu/jole/issues/JOLE_3_3.pdf www.valuesbasedleadershipjournal.com/assets/docs/Vol1Issue2.pdf www.leadershipeducators.org/.../JOLE_10_1_Winter_2011.pdf www.leadershipeducators.org/Resources/Documents/.../JOLE_9_1.pdf www.eastwestcenter.org/download/3492/.../transformations00103.pdf www.regent.edu/jsl www.alliedacademies.org/public/journals/journaldetails.aspx?jid=5 http://jlo.sagepub.com/content/by/year

Semester	I	Specialization	NA
Course Code	113	Type	Generic - Elective
Course Title	Personality Development Lab		

Course Objectives:

1	To develop an orientation towards business etiquettes and the proper etiquette practices for different business scenarios.
2	To learn the etiquette requirements for meetings, entertaining, telephone, and Internet business interaction scenarios.
3	To minimize nervousness while in social situations.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Personality: Physical Appearance; Body Language; Voice; Communication Style; Content of Communication; Enriched Communication Through Sensory Specific Language.</p> <p>Business Style and Professional Image: Dress Codes, Guidelines for Appropriate Business Attire - Differentiate among the dressy casual, semi-formal, formal and black tie dress code, Grooming for Success, Multi-cultural Dressing.</p>	5 + 1
2	<p>Impression Management: Impression Formation, Tactics, The Self-presentational Motive, The Compass Qualities; First and Lasting Impressions; Magic Pills; Toxic Traits , The Social Context: Norms and Roles , The Target's Values, Actions; The Environment; Success; Changing from the Outside-in , Current Social Image , Instrumental Complementarity , The Private Self , Worrying about Impressions. Creating Rapport, Powerful Persuasion Strategies.</p>	5 + 1
3	<p>Assertiveness Training: Concept of Assertiveness, Components of Assertive behavior, Rational-emotive Assertiveness Training, Handling Fear, Handling Anger, Handling Depression, Assertive Behaviour Skills, How to Handle Put-downs, Assertiveness on the Job, Assertiveness in Interpersonal Relations, Assertiveness in Everyday Commercial Situations, Assertiveness and Others.</p> <p>Interpersonal Relations : Introduction to Interpersonal Relations, Analysis Relations of different ego states, Analysis of Transactions, Analysis of Strokes, Analysis of Life position</p>	5 + 1
4	<p>Business Etiquette: The ABC's of Etiquette, Developing a Culture of Excellence, The Principles of Exceptional Work Behavior, The Role of Good Manners in Business, Enduring Words</p> <p>Making Introductions and Greeting People: Greeting Components, The Protocol of Shaking Hands, Introductions, Introductory Scenarios, Addressing Individuals</p> <p>Meeting and Board Room Protocol: Guidelines for Planning a Meeting, Before the Meeting, On the Day of the Meeting, Guidelines for Attending a Meeting - For the Chairperson, For Attendees, For Presenters</p> <p>Multi-cultural Etiquette: Examples of Cultural Insensitivity, Cultural Differences and their Effects on Business Etiquette</p>	5 + 1

5	<p>Stress Management: Introduction to Stress, Causes of Stress, Impact Management Stress, Managing Stress</p> <p>Conflict Management: Introduction to Conflict, Causes of Conflict, Management Managing Conflict</p> <p>Time Management: Time as a Resource, Identify Important Time Management Wasters, Individual Time Management Styles, Techniques for better Time Management.</p>	5 + 1
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Note:

The entire course must be taught using a hands-on approach.

Learning Resources:

1	Text Books	Business Etiquette in Brief by Ann Marie Sabath, Adams Media Corporation, South Asian Edition Basic Managerial Skills for All by E. H. McGrath, S. J., PHI Personality Development and Soft Skill, Mitra, Barun, Oxford University Press.
2	Reference Books	Business Etiquette by David Robinson, Kogan Page Develop your Assertiveness by Sue Bishop, Kogan Page
3	Supplementary Reading Material	How to deal with Stress by Stephen Palmer & Cary Cooper, Kogan Page India Pvt. Ltd., South Asian Edition Successful Time Management by Patrick Forsyth, Kogan Page How to manage meetings by Alan Barker, Kogan Page
4	Websites	www.mindtools.com www.e-learningcenter.com www.stevpavlina.com www.personalitydevelopment-leidenuniversity.in
5	Journals	Leadership Excellence

Semester	I	Specialization	NA
Course Code	114	Type	Generic - Elective
Course Title	Foreign Language – I Lab		

Course Objectives:

1	To provide the student with a Foreign Language Skill to manage basic oral and written communication.
2	To build a basic vocabulary in the selected Foreign Language.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Salutations:</p> <p>1. To greet the people and say Good afternoon, Good Evening, Goodbye, ask name and say your name, seek clarification and help, numbers from 1 to 10</p> <p>2. To say where you live. Describe your house and members of your family. Weights and Measures, length & breadth, use of decimal system, area and volume. Cardinal numbers & Ordinal Numbers.</p> <p>3. Ask and give personal information, Nationality, profession and language, Numbers from 11 to 50. To ask time by clock and by span, days of the week, months of the year.</p>	2 + 4
2	<p>Conversation Skills:</p> <p>1. To ask and express interests, Preferences; likes and dislikes; to invite, to accept the invitation or to politely decline the invitation; hobbies and how to spend your leisure.</p> <p>2. To talk about the weather; to talk about the daily personal routine and related activities. Seasons & holidays in France/Germany/Japan. Introduction to letter writing and email writing.</p> <p>3. To talk about clothing - size, colour, material. Purchase at a super market, modes of payment. To name and explain human body to express common bodily ailments (fever, headache etc.)</p>	2 + 4
3	<p>Geographical Description:</p> <p>1. Country, location on the world map, borders and neighboring countries, ports and industrial towns.</p> <p>2. Information and clarification of places. Asking for directions to the public places. Modes of Transport. Numbers 51 to 100 and 1000, 10,00,000 etc.</p>	2 + 4
4	<p>Business:</p> <p>1. Visit to a restaurant, to express agreement/disagreement; to ask for price/quantity</p> <p>2. To ask about personal past events, to narrate personal experience, to comprehend difference between letters like Personal/Business Letters, telegram & e- mail; formats of Letter head and e mail.</p> <p>3. To talk about/express future actions, to plan a business trip with related requirements: hotel, tickets, car, Rent a car, places to visit, traffic signs etc. Documents required like Passport, International Driving license, Insurance cover etc.</p> <p>4. Vocabulary relating to the Transactions at the Post office, Bank, Insurance Company – personal, health, accident, marine... equivalent terms of transaction – FOB, C.I.F, F.A.S, payment through Letter of credit.</p>	2 + 4
5	Practical Assignments on Unit I to IV.	6

Note:

Institute may offer any one of the following foreign languages to the students: SPANISH / FRENCH/ GERMAN/ JAPANESE / CHINESE
The emphasis of the course shall be on practical aspects.

Learning Resources:

1	Text Books	Relevant Standard Text Books, Videos, Audio CDs for the language offered to the students.
2	Reference Books	
3	Supplementary Reading Material	
4	Websites	
5	Journals	

Semester	I	Specialization	NA
Course Code	115	Type	Generic - Elective
Course Title	Enterprise Analysis - Desk Research		

Course Objectives:

1	To acquaint students with basic aspects of an Enterprise.
2	To guide the students in analyzing an Enterprise w.r.t a set of basic parameters.
3	To help the students assimilate basic jargon and its meaning w.r.t. Enterprise Analysis.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Enterprise History & Background: Establishment, Original & Current Promoters, Business Group or Business Family to which it belongs, Vision-Mission-Philosophy -Values, Name of the Chairman, CEO, MD, Members of Board of Directors, CSR Initiatives, Technical and other collaborations if any, Recent Mergers and Acquisitions, if any.	2 + 4
2	Organization : Organization Structure, Geographical (domestic and global) foot print – at the time of inception and spread over the years, company's current head quarter worldwide as well as head quarter / corporate office in India, Manufacturing /Service locations Indian and major worldwide, Certifications if any - ISO / EMS / FDA / CMMI , etc.	2 + 4
3	Markets: Major Customers, customer segments, Products, Product lines, Major Brands, Market Share – nationally, region wise, product wise, Advertising Agency, Advertising Punch Line/Slogan, Logo,	2 + 4
4	Financials: Data to be studied, tabulated, graphically depicted, analyzed and presented for last 5 years for the Revenues, Profitability, Market Capitalization, Segmented Revenues, Auditors. Listing status & Scrip Codes – BSE and NSE, Global Listings on International Stock Markets, Share Price Face Value, Current Market Value, Annual High Low Figures, P/E Ratio, Shareholding Pattern.	2 + 4
5	Governance: Philosophy, Action taken by SEBI if any, Involvement in Scams, Insider Trading Issues, Standard & Poor's Corporate Governance Scores, CRISIL Rating. Awards won if any.	6

Note:

Students should work in groups of 3 to 5 each under the guidance of a faculty. Students shall study various aspects of any TWO corporate entities (companies) of their choice. Focus shall be on analyzing the information collected and gaining insights. Students shall submit a structured detailed report.

The evaluation shall be made by a panel of two examiners. One of the examiners shall be the Internal Faculty. The other examiner may be an external faculty or a person from the relevant industry. The evaluation shall be based on the following criteria:

Report – 20 Marks , Presentation – 15 Marks, Question & Answer – 15 Marks

Learning Resources:

1	Text Books	Students shall use secondary data sources such as – Annual Reports, Corporate Websites, Stock Market Websites, Business Newspapers, etc. to collect maximum information – facts and figures about the enterprise and its functioning
2	Reference Books	
3	Supplementary Reading Material	
4	Websites	
5	Journals	

University of Pune

MBA SYLLABUS: SEMESTER II

Semester	II	Specialization	NA
Course Code	201	Type	Generic - Core
Course Title	Marketing Management		

Course Objectives:

1	To introduce the concept of Marketing Mix as a framework for Marketing Decision making.
2	To emphasize the need, importance and process of Marketing Planning and Control.
3	To sensitize the students to the dynamic nature of Marketing Function.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>New Product Development & Product Life Cycle:</p> <p>1.1 New Product Development :Need for new product development, Booz Allen & Hamilton Classification Scheme for New Products</p> <p>1.2 New Product Development Process: Idea Generation to commercialization.</p> <p>1.3 Branding: Introduction to Branding, Product Vs. Brand, Meaning of a brand, brand equity & brand elements.</p> <p>1.4 Packaging & Labeling: Meaning & role of Packaging & Labeling, Primary, Secondary & Shipment packages</p> <p>1.5 Product Life Cycle: Concept & characteristics of Product Life Cycle, Relevance of PLC, Types of PLC and Strategies across stages of the PLC.</p>	7 + 2
2	<p>Price:</p> <p>2.1 Pricing Basics: Meaning, Importance and Factors influencing pricing decisions</p> <p>2.2 Setting the Price: Setting pricing objectives, Determining demand, Estimating costs, Analyzing competitors' pricing, Selecting pricing method, Selecting final price.</p> <p>2.3 Adapting the Price: Geographical pricing, Price discounts & allowances, Promotional pricing, Differentiated pricing,</p> <p>2.4 Price Change: Initiating & responding to price changes.</p>	6 + 2
3	<p>Place:</p> <p>3.1 The Role of Marketing Channels: Channel functions & flows, channel levels.</p> <p>3.2 Channel Design Decisions: Analyzing customers' desired service output levels, establishing objectives & constraints, Identifying & evaluating major channel alternatives</p> <p>3.3 Channel Options: Introduction to Wholesaling, Retailing, Franchising, Direct marketing, E- Commerce Marketing Practices</p> <p>3.4 Market Logistics Decisions: Order processing, Warehousing, Inventory, and Transportation.</p>	6 + 2
4	<p>Promotion:</p> <p>4.1 Introduction: The role of marketing communications in marketing effort.</p> <p>4.2 Communication Mix Elements: Introduction to Advertising, Sales Promotion, Personal Selling, Public Relations, Direct Marketing. Concept of Integrated Marketing Communications (IMC)</p> <p>4.3 Developing Effective Communication: Identifying target audience, determining communication objectives, designing the communications, selecting communication channels</p> <p>4.4 Deciding Marketing Communications Mix: Factors in setting marketing communication mix, measuring communication results</p>	10 + 2

5	Marketing Planning & Control: 5.1 Product Level Planning: Preparation & evaluation of a product level marketing plan, Nature & contents of Marketing Plans- Executive Summary, Situation Analysis, Marketing Strategy, Financials, Control. 5.2 Marketing Evaluation & Control: Concept, Process & types of control - Annual Plan Control, Profitability Control, Efficiency Control, Strategic Control, Marketing audit	6 + 2
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Learning Resources:		
1	Text Books	Marketing Management by Philip Kotler, Kevin Lane Keller, Abraham Koshy, Mithileshwar Jha, Pearson, 13 th Edition Marketing Management by Rajan Saxena, TMGH, 4 th Edition
2	Reference Books	Principles of Marketing by Philip Kotler, Gary Armstrong, Prafulla Agnihotri, Ehasan Haque, Pearson, 13 th Edition Marketing Management- Text and Cases, Tapan K Panda, 2 nd Edition, Excel Books Marketing Management by Ramaswamy & Namakumari, Macmillan, 4 th Edition.
3	Supplementary Reading Material	Marketing Whitebook (Latest Edition) Brand Equity Supplement of The Economic Times Brand Wagon Supplement of The Financial Express Strategist Supplement of Business Standard Legends in Marketing by Jagdish N. Sheth
4	Websites	NCAER - http://www.ncaer.org/ 2011 Census of India Reports - http://www.censusindia.gov.in/ ASCI - www.ascionline.org/ http://www.marketingpower.com/Pages/default.aspx (American Marketing Association)
5	Journals	IIMB Management Review Vikalpa

Semester	II	Specialization	NA
Course Code	202	Type	Generic - Core
Course Title	Financial Management		

Course Objectives:

1	To understand various concepts related to financial management
2	To study in detail, various tools and techniques in the area of finance
3	To develop the analytical skills which would facilitate the decision making in Business situations

Syllabus:

Unit Number	Contents	Number of Sessions
1	Environment of Business Finance: Introduction, Definition of Financial Management, Goals of Financial Management, Modern approaches to Financial Management, Finance and other related disciplines, Functions of finance manager, Key strategies of financial management.	3+2
2	Techniques of Financial Analysis: Meaning, Nature, Objectives and limitations of financial analysis. Tools of analysis and interpretation, fund flow statement analysis (Working capital basis), Cash flow statement analysis – (Cash basis), Ratio analysis (computation and Interpretations of ratios)	8+2
3	Capital Budgeting: Meaning, Definition and types of evaluating the project on the basis of payback period, NPV, IRR, PI, ARR Decision making under risk and uncertainty using standard deviation, risk adjusted discounted rate, certainty equivalent approach, simulation.	8+2
4	Working Capital Management: Nature and Scope, Components of working capital, operating cycle, types of working capital, determination of working capital, Assessment of working capital requirement, Working Capital Financing.	8+2
5	Capital Structure and Firm Valuation: Meaning, Factors affecting the capital structure, Concept and measurement in cost of capital, measurement of specific costs: WACC. Leverage , Assumptions of capital structure theories, NI, NOI and MM Approach.	8+2

Note:

Numerical problems will be asked on the following topics only –
 Simple problem on Fund flow statement **and** Ratio analysis (**computation and Interpretations of ratios**)
 Capital budgeting: Payback period, NPV, IRR, PI, ARR, **Decision making under risk and uncertainty using standard deviation, risk adjusted discounted rate, certainty equivalent approach, simulation**
 Estimation of Working Capital, **Calculation of operating cycle duration**
 Cost of Capital: WACC, **Leverage**
 The weightage of theory questions will be 40% and numerical problems 60%

Learning Resources:		
1	Text Books	Financial Management by Khan & Jain (TATA McGraw Hill) Contemporary Financial Management by Rajesh Kothari (Macmillan Publication) Financial Management by I. M. Pandey (Vikas Publication) Corporate Finance, Theory and Practice, Aswath Damodaran (Wiley Publication) Financial Management Principle and Practices by S. Sudarsana Reddy (Himalaya Publication) Fundamentals of Financial Management by Sheeba Kapil (Pearson Publications)
2	Reference Books	Financial Management by Jonathan Berk, Peter DeMarzo and Ashok Thampy (Pearson Publication) Financial Management: Theory & Practice by Brigham Financial Management: Principles & Practice by Lasher Financial Management by Sudarshan Reddy
3	Supplementary Reading Material	Fundamentals of Financial Management by Brigham and Houston (Cengage Learning)
4	Websites	NSE, BSE
5	Journals	Indian Journal of Finance

Semester	II	Specialization	NA
Course Code	203	Type	Generic - Core
Course Title	Human Resource Management		

Course Objectives:

1	To understand the role of HRM in an organization
2	To learn to gain competitive advantage through people
3	To learn to study and design HRM system

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Framework of Human Resource Management:</p> <p>Introduction to HRM and framework - Nature of HRM, Scope of HRM, HRM: Functions and Objectives, HRM: Policies and practices</p> <p>HRM and SHRM - Nature of SHRM, The strategic functions of HRM understood and implemented in the company, Global competitiveness and Strategic HR, Linkage of organizational and HR strategies</p> <p>Models of SHRM - The Integrated system model, Devanna et. al - strategic human resource management "matching model"</p>	2+2
2	<p>HR Procurement:</p> <p>Job Analysis and Design - Job Analysis: introduction, Importance of job analysis, purpose of job analysis, benefits of job analysis, competency based job analysis, Job Design: Writing job description, introduction, and factors affecting job design. Job characteristics model (Hackman and Oldham, 1976) of effective job and job satisfaction.</p> <p>Human Resource Planning - The need of man power planning , What is Human Resource Planning, Definition, objectives, importance, benefits, the process of Human resource planning, Preparing manpower inventory.(supply Forecasting)</p> <p>Recruitment - Strategic approach to recruitment, Labour markets and recruitment, Geographic labour markets, Global labour markets, Industry and occupational labour markets, Educational and technical labour markets, Unemployment rate and labour markets, Recruiting and diversity considerations, Employment advertising, Recruiting Diverse workers, Recruiting Source choices: internal vs. external - Internal: Organizational Database, Job postings, Promotions and Transfers, Current Employee Reference and Re-recruiting of former employees and applicants, External: College and University recruiting, school recruiting, Labour Unions, Employment agencies and headhunters, competitive sources, media sources, E-Recruiting methods - Internet job boards, Professional / career websites, Employer websites</p> <p>Selection - Introduction to selection process, Selection procedure,</p>	7+2
3	<p>Training and Development - Employee Training and Development Nature of training, Training process, Training needs assessment, Training evaluation, Training design, Implementing Training programs(Training methods), Implementing management development programs</p>	7+2
4	<p>Employee Appraisal & Compensation - Performance- Definition, Why to measure performance, Use of performance data, measurement process, Performance feedback, Compensation- concept, Traditional approach, current trends in compensation, Linking compensation with performance- Advantages & Problems, Team based Incentives</p>	11+2

5	Managing Employee Relations - Concept, Importance, Organizational Entry, employee Status, Flexible Work arrangement, Employee Surveys, Handbooks, Violations of Policy/ Discipline, Organizational Exit, Termination, Resignation, downsizing, Lay off Retirement	8+2
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Learning Resources:		
1	Text Books	Personnel/ Human Resource Management by David DeCenzo, Stephen Robbins, Prentice Hall of India, 2008, 3 rd Edition Human Resource Management by J. John Bernardin, Tata McGraw Hill Publishing, 4 th Edition
2	Reference Books	Human Resource Management, A case study approach, Muller Camen, Croucher Leigh, Jaico Publishing House HRM Ethics & Employment Ashly Pinnington, Rob Macklin, Tom Campbell, 2 nd Edition Human Resources Management by Gary Dessler Managing Human Resources by R.S. Dwivedi Human Resources Management by V.P. Michael Human Resources Management by Mirza & Zaiyadin Human Resources Management by L.M. Prasad Human Resources Management by Ashwathappa Managing Human Resources by Arun Monappa
3	Supplementary Reading Material	Case studies in Human Asset Management, Vol. I by Doris John, ICFAI Books, 1 st Edition HRM in Organizations by Izabela Robinson, Jaico Publishing House, 1 st Edition Armstrong's Essential Human Resource Management Practice- A guide to people management by Michael Armstrong, Koganpage, 1 st Edition Applied Psychology in HRM by Cascio & Aguins, PHI, 6 th Edition.
4	Websites	www.shrmindia.org www.peoplesmatters.com www.hrmguide.net
5	Journals	International Journal of Human Resource Management Human Resource Management Journal Human Resource Management Journal of Human Values Journal of Human Resources

Semester	II	Specialization	NA
Course Code	204	Type	Generic - Core
Course Title	Decision Science		

Course Objectives:	
1	To understand role of quantitative techniques in managerial decision making.
2	To understand process of decision problem formulation.
3	To understand applications of various quantitative techniques in managerial settings.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: Decision Sciences & Role of quantitative techniques Linear Programming: Concept, Formulation & Graphical Solution Assignment Models: Concept, Flood's Technique/ Hungarian Method, applications including restricted & multiple assignments Transportation Models: Concept, Formulation, Problem types: Balanced, unbalanced, Minimization, Maximization Basic initial solution using North West Corner, Least Cost & VAM, Optimal Solution using MODI	9+2
2	Queuing Theory: Concept, Single Server (M/M/I , Infinite, FIFO) and Multi Server (M/M/C , Infinite, FIFO) Markov Chains & Simulation Techniques: Markov chains: Applications related to management functional areas, Implications of Steady state Probabilities, Decision making based on the inferences Monte Carlo Simulation, scope and limitations.	8+2
3	Decision Theory: Concept, Decision under risk (EMV)& uncertainty Game Theory: Concept, 2 by 2 zero sum game with dominance, Pure & Mixed Strategy	6+2
4	CPM & PERT: Concept, Drawing network, identifying critical path Network Calculations: Calculating EST, LST, EFT, LFT, Slack & probability of project completion	6+2
5	5.1 Probability: Concept, Addition, Conditional Probability theorem based decision making, (Numerical based on functional areas of business expected). 5.2 Probability Distributions: Normal, Binomial. Interval estimation, standard errors of estimation.	6+2

Learning Resources:		
1	Text Books	Quantitative Techniques in Management by N.D. Vohra Tata, McGraw Hill Publications, 4 th Edition Quantitative Approaches to Management by Levin, Rubin, Stinson & Gardner Operations Research Theory & Applications by J K Sharma- MacMillan Publishers India Ltd., 4 th Edition
2	Reference Books	Introduction to Operations Research by Billey E. Gillett, TMGH Operations Research by Nita Shah, Ravi Gor, Hardik Soni, PHI Managerial Decisions Modeling with Spreadsheets by Bal Krishnan, Render, Stair, Jr., Pearson Education. Operations Research by R. Pannervselvam, Prentice Hall India, 2 nd Edition.
3	Supplementary Reading Material	Operations Research by Hamdy A. Taha, Pearson Publication
4	Websites	www.orsi.in
5	Journals	International Journal of Operations and Quantitative Management International Journals of Operations Research and Management Science Journal of Operation Management Research Indian Journal of Advanced Operations Management

Semester	II	Specialization	NA
Course Code	205	Type	Generic - Core
Course Title	Operations and Supply Chain Management		

Course Objectives:	
1	To develop an understanding of the strategic importance of Operations & SCM and how it can provide a competitive advantage in the marketplace
2	To understand the relationship between Operations & SCM and other business functions, such as Marketing, Finance, Accounting, and Human Resources.
3	To develop knowledge of the issues related to designing and managing Operations & SCM and the techniques to do so.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>1.1 Introduction to Operations and Supply Chain Management: Definition, Concept, Significance and Functions of Operations and SCM. Evolution from manufacturing to operations management , Physical distribution to Logistics to SCM, Physical Goods and Services Perspectives</p> <p>1.2 Quality: Definitions from various Perspectives, Customers view and Manufacturer's view, Concept of Internal Customer, Overview of TQM and LEAN Management, Impact of Global Competition, Technological Change, Ethical and Environmental Issues on Operations and Supply Chain functions.</p>	5 + 2
2	<p>Operations Processes</p> <p>2.1 Process Characteristics in Operations: Volume Variety and Flow. Types of Processes and Operations Systems - Continuous Flow system and intermittent flow systems</p> <p>2.2 Process Product Matrix: Job Production, Batch Production, Assembly line and Continuous Flow, Process and Product Layout</p> <p>2.3 Service System Design Matrix :Design of Service Systems, Service Blueprinting</p>	7 + 2
3	<p>3.1 Production Planning & Control (PPC): Role and Functions</p> <p>3.2 Demand Forecasting: Forecasting as a Planning Tool, Forecasting Time Horizon, Sources of Data for forecasting, Accuracy of Forecast, Capacity Planning</p> <p>3.3 Production Planning: Aggregate production Planning, Alternatives for Managing Demand and Supply, Master Production Schedule, Capacity Planning - Overview of MRP, CRP, DRP , MRP II</p> <p>3.4 Production Control: Scheduling, Loading, Scheduling of Job Shops and Floor Shops, Gantt Charts</p>	8 + 2

4	<p>4.1 Inventory Planning and Control: Continuous and Intermittent demand System, concept of inventory, need for inventory, types of inventory - seasonal, decoupling, cyclic, pipeline, safety - Implications for Inventory Control Methods.</p> <p>4.2 Inventory Costs: Concept and behavior of ordering cost, carrying cost, shortage cost.</p> <p>4.3 EOQ: Basic EOQ Model - EOQ with discounts</p> <p>4.4 Inventory control: Classification of material - ABC Analysis -VED, HML, FSN, GOLF, SOS.</p> <p>(Numericals expected on Basic EOQ, EOQ with discounts & ABC), Inventory turns ratios, Fixed Order quantity Model - Periodic Review and Re-order Point</p>	8 + 2
5	<p>5.1 Supply Chain Management: Generalized Supply Chain Management Model - Key Issues in SCM – Collaboration, Enterprise Extension, responsiveness, Cash to Cash Conversion,</p> <p>5.2 Customer Service: Supply Chain Management and customer service linkages, Availability service reliability perfect order, customer satisfaction Enablers of SCM - Facilities, Inventory, Transportation, Information, sourcing, Pricing</p>	7 + 2

Learning Resources:

1	Text Books	Operations Management Theory & Practice by B.Mahadevan , Pearson, 2 nd Edition. Operations Now - Supply Chain Profitability & Performance by Byron J. Finch, McGraw Hill, 3 rd Edition. Production and Operations Management by R B Khanna, PHI, New Delhi, 2011 Edition.
2	Reference Books	Supply Chain Logistics Management by Donald Bowersox, David Closs, M Bixby Cooper, Tata McGraw Hill, 2 nd Edition. Operations Management by William J. Stevenson, TMGH, 9 th Edition. Operations Management by Lee Krajewski, Larry Ritzman, Manoj Malhotra, Pearson Education, 8 th Edition. Introduction to Materials Management , J.R. Tony Arnold, Stephen Chapman, Ramakrishnan, Pearson, 5 th Edition. Supply Chain Management - Strategy, Planning & Operation by Sunil Chopra, Peter Meindl, D. V. Kalra, Pearson Education. Production & Operations Management by S N Chary, McGraw Hill, 7 th Edition
3	Supplementary Reading Material	Contemporary Logistics by Paul Murphy, Donald Wood, PHI, 9 th Edition The Goal by Eliyahu Goldratt
4	Websites	www.apics.org www.supplychainmanagement.in
5	Journals	International Journal of Operations and Quantitative Management Udyog Pragati International Journals of Logistics and Supply Chain Management International Journal of Logistics and Planning Supply Chain Management

Semester	II	Specialization	NA
Course Code	206	Type	Generic - Core
Course Title	Management Information Systems		

Course Objectives:	
1	To develop conceptual understanding about latest developments in the field of Information Technology and the impact of I.T. in managing a business
2	To learn to use Information Technology to gain competitive advantage in business
3	To learn from, with a view to emulate, entrepreneurial ventures in e-Commerce and m-Commerce

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Management Information Systems: Need, Purpose and Objectives - Data, Information, Knowledge – Types of Information Systems - Information as a strategic resource - Use of information for competitive advantage</p> <p>Information Technology Infrastructure: Information Systems Architecture – Mainframe, Client Server, Web Based, Distributed, Grid, Cloud - Overview of Hardware, Software, Storage and Networking Devices – Networks Types - Topologies of Networks</p>	7 + 2
2	<p>2.1 Data Base Management Systems: Concept – Relational Model Applications – DBMS Architecture</p> <p>2.2 Systems Engineering Analysis and Design: Systems Concept - Systems Development Life Cycle - Assessing Enterprise Information requirements – Alternative System Building Approaches - Prototyping - Rapid Development Tools – CASE Tools – Object Oriented Systems (<i>Only introduction to these tools & techniques</i>)</p>	7 + 2
3	<p>3.1 Decision Support Systems: Data Warehousing and Data Mining - Business Intelligence and Analytics - Group Decision Support Systems – Executive Information Systems - Executive Support Systems – Geographical Information Systems - Expert Systems and Knowledge Based Expert Systems – Artificial Intelligence</p>	7 + 2
4	<p>4.1 Digital firm Perspective: MIS Model for a digital firm – Organization Structure for digital firm – e-Business Models and Applications – Mobile computing, Call Centers, BPO</p> <p>4.2 Management Issues in MIS: Information Security and Control - Quality Assurance - Ethical and Social Dimensions - Intellectual Property Rights as related to IT Services / IT Products</p>	7 + 2
5	<p>5.1 Applications of MIS in functional areas as well as in the service sector should be covered with the help of minimum 5 case studies.</p>	7 + 2

Note:
Emphasis should be given on management oriented problems and cases as compared to technical orientation expected from computer science/ computer management students.

Learning Resources:		
1	Text Books	Management Information Systems by Obrien, Marakas and Ramesh Behl, TMGH Management Information Systems by Jawadekar, TMGH, 4 th Edition
2	Reference Books	Management Information Systems by Jaiswal and Mittal, Oxford University Press Decision Support Systems and Intelligent Systems by Turban and Aronson, Pearson Education Asia
3	Supplementary Reading Material	Management Information Systems by Laudon, Laudon, Dass, Pearson Education Asia, 11 th Edition Management Information Systems by Davis and Olson, Tata McGraw Hill
4	Websites	-
5	Journals	MIS Quarterly, University of Minnesota CSI Communications, Computer Society of India, Mumbai

Semester	II	Specialization	NA
Course Code	207	Type	Generic - Elective
Course Title	Emotional Intelligence and Managerial Effectiveness Lab		

Course Objectives:

1	To equip students with individual and group learning methods
2	To understand intelligence and develop emotional competence
3	To develop understanding and competence for personal and managerial effectiveness.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: Emotions and the Tripartite Brain, Emotional Competencies, Executive EQ, Emotions and Enneagram, Rational Emotive Therapy, Emotional Transformation, Measuring Emotional Intelligence, Emotions and Childhood, Role of Emotions, Emotions and Attitudes	5 + 1
2	Individual & Organizational Learning: Theories of Learning, Learning Processes, Kolb's Learning Styles, How to create a learning organization	5 + 1
3	Emotional Intelligence: Fundamentals of Emotional Intelligence, The Emotional Competence Framework, Benefits of Emotional Intelligence	5 + 1
4	Managerial Effectiveness: Challenges faced by Organisations & expectations from practicing Managers	5 + 1
5	Improving Effectiveness: Understanding Organizational goals, Creativity, Optimising resources, Execution Skills (PDCA Cycle)	5 + 1

Learning Resources:

1	Text Books	Emotional Intelligence: Why It Can Matter More Than IQ by Daniel Goleman Get Better or Get Beaten: 31 Leadership Secrets from GE's Jack Welch by Robert Slater, Jack Welch, McGraw-Hill School Education Group
2	Reference Books	Working with Emotional Intelligence - Daniel Goleman Jack Welch on Leadership : Executive Lessons from the Master CEO by John A. Byrne, Jack Welch Crown Publishing Group
3	Supplementary Reading Material	Leadership: The Power of Emotional Intelligence by Daniel Goleman The Brain and Emotional Intelligence: New Insights by Daniel Goleman The Emotionally Intelligent Workplace by Daniel Goleman, 2001 Primal Leadership: Realizing the Power of Emotional Intelligence by Daniel Goleman, 2002 Destructive Emotions: A Scientific Dialogue with the Dalai Lama – 2003 Emotional Intelligence: Key Readings on the Mayer and Salovey Model by John D. Mayer (Editor), Marc A. Brackett (Editor), Peter Salovey (Editor) The Emotionally Intelligent Manager: How to Develop and Use the Four Key Emotional Skills of Leadership by David R. Caruso and Peter Salovey Bhagwad Gita As it is by Shree Prabhupada
4	Websites	http://www.unh.edu/emotional_intelligence/ei%20Reprints/EIpubs%201990-1999.htm http://www.dirjournal.com/guides/emotional-intelligence/ http://eqi.org/ http://www.emotionalintelligencecourse.com/eq-blog/ http://www.byronstock.com/emotional-intelligence-blog/ http://completeintelligence.com/blog/just-what-is-emotional-intelligence/

5	Journals	Human Resource Development Quarterly Human Resource Management Review Journal of Applied Social Psychology Journal of Managerial Psychology Journal of Occupational Health Psychology Journal of Organizational Behavior American Psychologist Applied Psychology Current Directions in Psychological Science European Journal of Work and Organizational Psychology Journal of Personality and Individual Differences Personality & Social Psychology Bulletin Research on Emotion in Organization
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Semester	II	Specialization	NA
Course Code	208	Type	Generic - Elective
Course Title	Statistical Software Lab		

Course Objectives:

1	To give an overview of the capabilities of popular statistical software packages.
2	To train students in handling data files and carry out basics statistical analysis.
3	To give hands on experience about basic hypothesis testing using t tests, Chi Square tests and ANOVA.
4	To train students in using advanced tools such as regressions, MDS, Factor Analysis etc.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>1.1 An Overview of Statistical Software: Introduction to SPSS / SAS/ Systat. Introduction to various menus, Data file, Output file, Frequently –used dialog boxes, Editing output, Printing results. Creating and editing a data file – Variable and data view, Value Labels.</p> <p>1.2 Managing Data: Listing cases, replacing missing values, computing new variables, recording variables, exploring data, selecting cases, sorting cases, merging files, splitting files, Visual Binning.</p>	4 + 1
2	<p>2.1 Frequencies: Frequencies, bar charts, histograms, percentiles</p> <p>2.2 Descriptive Statistics: Measures of central tendency, variability, deviation from normality, size and stability. Cross Tabulation and chi-square analyses, The means Procedure</p> <p>2.3 Graphs: Creating and editing graphs and charts</p>	4 + 1
3	<p>3.1 Bivariate Correlation: Bivariate Correlation, Partial Correlations and the correlation matrix</p> <p>3.2 The T-test Procedure: Independent –samples, paired samples, and one sample tests</p> <p>3.3 Non Parametric Tests: ChiSquareTest, 1 sample test, 2 independent samples test, k independent samples, 2 related samples test, k related samples,</p>	4 + 1
4	<p>4.1 One Way ANOVA Procedure: One way analysis of variance, General Linear model: Two –way analysis of variance, General Linear model: three –way analysis of variance and the influence of covariates</p>	5 + 1
5	<p>5.1 Advanced Tools: Simple Linear Regression , Multiple regression analysis Multidimensional scaling, Reliability Analysis, Factor analysis, Cluster analysis.</p>	8 + 1

Note:

The entire course has to be taught using a hands-on approach.
Students should be encouraged to use the 30 day trial version of relevant software package.

Learning Resources:		
1	Text Books	SPSS for Windows – Step by Step, 17.0 Update, by George and Mallery, Pearson, 10 th Edition. Research Methodology with SPSS by Rao and Tyagi, Shree Niwas Publications, 2009.
2	Reference Books	Ready, Set, Go! – A student Guide to SPSS for Windows by Pavkov and Pierce, TMGH Edition. Discovering Statistics using SAS by Andy Field & Jerry Miles, Sage Publications, 2010.
3	Supplementary Reading Material	http://www.inc8.jp/ps/T9_Luque_imec.pdf http://www.jstatsoft.org/v49
4	Websites	www.sas.com www.xlstat.com www.stata.com www.ibm.com/software/analytics/spss/
5	Journals	Journal of Statistical Software

Semester	II	Specialization	NA
Course Code	209	Type	Generic - Elective
Course Title	MS Project Lab		

Course Objectives:	
1	To understand basics of project management and learn how to use MS Project 2007 to:
A	Create a New Project
B	Build Tasks
C	Create Resources & Assign Costs
2	To understand use of MS Project 2007 to track Project Progress

Syllabus:

Unit Number	Contents	Number of Sessions
1	1.1 Introduction to MS Project 2007 : Understanding Projects, Managing Projects & Project Management Software, Taking a first look at Project – Starting Project, Entering Information, Changing Views, What's new in Project 2007	2
2	2.1 Creating a New Project: Gathering Information, Opening a Project file, Establishing Basic Project Information, Looking at Project Calendars, Entering tasks, Adding subtasks, Saving Project files, Working with Project Outline – Adjusting tasks in an outline, Copying tasks	3 + 2
3	3.1 Building Tasks: Establishing Timing for Tasks, Assigning Task Timing, Using Recurring Tasks, Establishing Constraints and Deadline Dates, Manipulating Gantt Chart to View Timing, Entering Task Notes, Establishing Dependencies Among Tasks, Viewing Dependencies	4 + 2
4	4.1 Creating Resources & Assigning Costs: Understanding Resources, Creating Resource List, Modifying Resource Information, Using Resources and Tasks, Handling Unusual Cost Situations 4.2 Understanding Basics of Views: What is a View?, Examining Indicators, Admiring Views – Calendars, Detail Gantt, Gantt Chart, Leveling Gantt, Tracking Gantt, Multiple baselines Gantt. Resource Allocation , Resource Form, Resource Graph, Resource Name Form, Resource Sheet, Resource Usage, Roll up Views, Task Details Form, Task Entry, Task Form, Task Name Form, Task Sheet, Task Usage, Printing Project	5 + 3
5	5.1 Tracking Project Progress I: Understanding the Principles of Tracking, Using Baseline, Changing the Baseline, Viewing Progress with the Tracking Gantt Chart View – Interpretation, Task Variance Table, Task Cost Table, Task Work Table, Understanding Tracking Strategies 5.2 Tracking Project Progress II: Recording Actuals – Organizing the Updating Process, Understanding Calculation Options, Updating Tasks to Reflect Actual Information, Using Actuals and Costs, Techniques and Tips for Updating, Reviewing Progress.	6 + 3

Learning Resources:		
1	Text Books	Microsoft Office Project 2007 Bible by Elaine Marmel, Wiley Publishing Inc, 2007
2	Reference Books	-
3	Supplementary Reading Material	PMBOK Guide by PMI
4	Websites	www.pmi.org.in http://www.project-blog.com/
5	Journals	Project Management by Koehler, Brandon. OfficePro. Mar/Apr2012, Vol. 72 Issue 2, p36-37

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Semester	II	Specialization	NA
Course Code	210	Type	Generic - Elective
Course Title	Life Skills		

Course Objectives:

1	To encourage students to develop and use balanced self-determined Behavior.
2	To help students in enhancing self, increasing life satisfaction and Improving relationships with others.
3	To develop new ability to practice new problem solving skills in group and use these skills in personal life.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Definition of Life Skills , Assumptions about Life Skills, Concept of skill in Life Skills, Concept of Skill in Life Skills, Primary goal of Life Skills programme, Life Skills Process model, Group development and group behaviors.	5 + 1
2	Cognition, Meaning , Piaget's theory of Cognitive Development, role of Goal Orientation, Meaning, Big Five personality characteristics, extraversion, Openness to experience, emotional stability, consciousness and agreeableness, Personal knowledge management, meaning, Wright's model, Four domains, Analytical, information, social and learning.	5 + 1
3	Coping, Meaning, Types of coping strategies, 1) appraisal focused (adaptive Cognitive) 2) problem focused (adaptive behavior) 3) emotion focused Empathy, meaning and definitions, Difference between empathy and sympathy, Anger and distress, Meaning, overcoming.	5 + 1
4	Moral development, Meaning, Interpersonal influences on Moral development, Moral development and social exclusion, Morality and culture, Morality and Intergroup attitudes, moral emotions.	5 + 1
5	Study Skills, Meaning, Types of study skills, Methods based on : Memorization such as rehearsal and role learning Communication Skills e.g. reading, listening, Cues e.g. flashcard training Condensing information, summarizing and use of key words.. Visual imagery Exam strategies Time management, organization and life style changes.	5 + 1

Learning Resources:

1	Text Books	Critical thinking skills : developing effective analysis and argument by Stella Cottrell Academic writing: a handbook for international students by Stephen Bailey Effective Study Skills: Step-by-Step System to Achieve Student Success by Semones
2	Reference Books	Critical thinking and analysis by Mary Deane Developing and applying study skills : writing assignments, dissertations and management reports by Donald Currie Assignment and thesis writing by Jonathan Anderson
3	Supplementary Reading Material	-
4	Websites	-
5	Journals	-

Semester	II	Specialization	NA
Course Code	211	Type	Generic - Elective
Course Title	Geopolitics & the World Economic System		

Course Objectives:

1	To expose students to the relationship between political power and geographic space amidst world economic system.
2	To help students understand various facets of international political economy & national system political economy.
3	To develop abilities to appreciate the interrelationship between the trading system, international financial system and the participants in the changed economic system

Syllabus:

Unit Number	Contents	Number of Sessions
1	International Political Economy: Distribution of Wealth and Economic Activities - National Autonomy - Politics of International Regimes - Theory of Hegemonic Stability - Governance of the Global Economy	5 + 1
2	National Systems of Political Economy: Differences among National Economies - Market-Oriented Capitalism- Developmental Capitalism- Social Market Capitalism – Comparative Analysis	5 + 1
3	The Trading System: Debate over Free Trade – Functions of WTO and GATT - The Uruguay Round and World Trade Organization – Trade Blocs such as SAARC, ASEAN, NAFTA - Threats to Open Trading System	5 + 1
4	International Monetary System: The International Financial System - Reform of International Monetary Affairs - Nature of Financial Crises - Controversy over Regulation of International Finance	5 + 1
5	The State and the Multinationals: An International Regime for FDI and MNC- Do Global Corporations Pose a Threat? - Consequences of Economic Globalization	5 + 1

Learning Resources:

1	Text Books	Global Political Economy – Robert Gilpin, Princeton University Press International Economics with MyEconLab by Paul Krugman, Maurice Obstfeld and Marc Melitz, Pearson, Global Edition, 9 th Edition
2	Reference Books	Managing World Economic Change: International Political Economy by Robert A. Isaak, Pearson, 3 rd Edition,
3	Supplementary Reading Material	Economic Times Daily Business Standard Daily The Economist – Magazine
4	Websites	http://www.wto.org/ http://www.imf.org/external/index.htm
5	Journals	Economic Systems Research.

Semester	II	Specialization	NA
Course Code	212	Type	Generic - Elective
Course Title	Business Systems and Procedures		

Course Objectives:

1	To understand Business as an integrated system
2	To develop process thinking for developing procedures.
3	To make students aware of various business functions & responsibilities.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Systems and Procedures – Concept and need - Characteristics of a good procedure. Writing a Standard Operating Procedure (SOP)– Procedure Identification - Information Gathering–Interviewing – Analysis – Writing – Implementation – Review- Fine-tuning. Process Mapping Tools – Aid Memoir – Flowchart – Swim Lane Diagrams – Flow Charting Software – Using MS Word and Excel for Flowcharting - Case Studies.	+ 1
2	Understanding accounting procedures for Cash Sales - Credit Sales - Cash Receipts – Donations – Travelling Expenses – Writing off Bad Debts – Sale of Scrap. Principles of Internal Control – Study of Internal Control in Select Procedures such as Recruitment, Payment of Salaries and Wages, Verification of Inventories and Work in Progress, Verification of Fixed Assets and Investments	5 + 1
3	Lean Office – Re-engineering information flow and paper flow – Process Mapping for Current and Future State Map. Digital Office –Overview of Office Automation Systems – Use of technologies such as Bar Coding, RFID, Biometry and Mobile Computing for redesigning office procedures.	5 + 1
4	Study of the following Systems and underlying Procedures. Point of sale (POS) system in an organized retail store, Purchase Order System in a manufacturing organization, Attendance Recording System in a factory, Kitchen Order Ticket (KOT) System in a Restaurant, Just in Time Inventory System in a manufacturing organization.	5 + 1
5	Presentation of individual/group projects in Process Mapping, Improvement and Writing SOP's for an entire range of activities for a segment in a manufacturing/ service organization.	5 + 1

Learning Resources:

1	Text Books	Business Process Management – A Rigorous Approach by Martyn A Ould , British Computer Society, First South Asia Edition.
2	Reference Books	-
3	Supplementary Reading Material	-
4	Websites	-
5	Journals	-

Semester	II	Specialization	NA
Course Code	213	Type	Generic - Elective
Course Title	Computer Aided Personal Productivity Tools Lab		

Course Objectives:	
1	To give students mastery of MS Office.
2	To enhance personal productivity through advanced features of MS Word, MS Excel & MS PowerPoint
3	To impart skills of using MS Outlook and basic social networking tools.

Syllabus:

Unit Number	Contents	Number of Sessions
1	MS WORD	+ 1
	1.1 Collaboration - Protect your document with passwords, permission, and other restrictions, Save a document to SharePoint from Office 2010, The purpose of IRM and its limitations, Mail Merge	1
	1.2 Tracking changes and comments - Turn track changes on or off, Review tracked changes and comments	1
	1.3 Formatting - Add, change, or delete WordArt, Add or remove text effects, Adjust the spaces between letters, lines or paragraphs, Set the default font, Language, Apply, customize, and save a document theme in Word	1
	1.4 Tables of contents and other references - Create a table of contents, Edit a citation placeholder, Create a bibliography, Foot note & End Note, Captions & Index	1
	1.5 Checking Spelling, grammar, and thesaurus	1
	1.6 Managing Headers, footers, and page numbers, Links	1
	1.7 Inserting Page breaks and section breaks, Applying Multiple headers, page layouts	1
	1.8 Tables Tools, Illustrations, Equations, Symbols	1
2	POWERPOINT	6 + 1
	2.1 Working with text & SmartArt graphics - Add alternative text to a shape, picture, chart, table, SmartArt graphic, or other object, Wrap text around an object in PowerPoint 2010, Adjust the indent in a bulleted or numbered list on the ruler, Change the look, position, or function of bulleted or numbered lists in your presentation	1
	2.2 Organizing and formatting slides, Using masters - Understanding a slide master, Create or customize a slide master, Apply one or more slide masters to a presentation	1
	2.3 Working with animation, sounds & Movies - Turn your presentation into a video, Embed or link to a video from your presentation, Set the 'Play' options for a video in your presentation, Trim a video, Compress your media files, Tips for improving audio and video playback and compatibility	1
	2.4 Working with hyperlinks and action buttons	1
	2.5 Reviewing and adding comments - Show markup and add Comments	1
	2.6 Creating support materials - Notes and Notes Master, Printing Notes	1
	2.7 Delivering your presentation - Using Presenter's Mode, Optimising Handouts	1
	2.8 Embedding Presentation - Multiple presentations & Slides and files on the slide	1
3	MSEXCEL	6 + 1
	3.1 Excel Basics Review - Using Keyboard, Importing and Exporting Data (Access, SPSS)	1

	3.2 Excel For Marketing & Statistics - Creating Business Solutions	1
	Excel & HRIS - Database Creation, Analysis & reporting	1
	3.4 Excel for Finance - Analysing Financial Statements e.g. Balance sheet, Ratio Analysis, Using Applications e.g. PROWESS, AceEquity, Creating Excel Dashboard	3
4	MS Outlook	2 + 1
	4.1 MS Outlook - Start using the Outlook Social Connector, Stay up-to-date in the People Pane, Assign a colour category to an e-mail message, Customize the appearance of task lists, Turn the Reading Pane on or off, Introduction to Conversations, Create and add a message signature, Manage messages by using rules, Automate common or repetitive tasks	2
5	Media for Social Connectivity	5 + 1
	5.1 Using Google + & Google Docs	2
	5.2 Using Twitter for networking and Business	1
	5.3 Creating Blogs, Using LinkedIn, and other academics and Business websites. Networking, Surveys, Discussions, Business Information	2

Note:

Emphasis should be on hands on experience.
All sessions should be conducted in the IT laboratory.

Learning Resources:

1	Text Books	Excel 2010 Bible [With CDROM] by John Walkenbach John Wiley & Sons Word 2010 Bible by Herb Tyson John Wiley & Sons MOS 2010 Study Guide for Microsoft Word, Excel, PowerPoint, and Outlook by Joan Lambert III and Joyce Cox (Apr 8, 2011) Microsoft Word 2010 Step by Step by Joyce Cox and Joan Lambert III PowerPoint 2010 Bible [Paperback] by Faithe Wempen
2	Reference Books	Microsoft Word 2010 in Depth by Faithe Wempen Microsoft Word 2010 Plain & Simple by Katherine Murray Beyond Bullet Points: Using Microsoft PowerPoint to Create Presentations That Inform, Motivate, and Inspire [Paperback] BPG Microsoft PowerPoint 2010 Plain & Simple by Nancy Muir Office 2010 Bible by John Walkenbach, Herb Tyson, Michael R. Groh, Faithe Wempen, Lisa A. Bucki Business Analysis with MS Excel by Conard Carlberg, Pearson Education
3	Supplementary Reading Material	http://prezi.com/recyyolxzm3e/how-to-create-a-great-prezi/ http://chandoo.org/wp/excel-dashboards/
4	Websites	http://www.lifeoptimizer.org/2010/07/05/productivity-tools/ http://toshibathrivetabletreview.com/how_tablet_pcs_are_actually_great_productivity_tools http://www.seozap.com/top-10-organizational-content-management-productivity-tools
5	Journals	http://www.inderscience.com/browse/index.php?journalID=177

Semester	II	Specialization	NA
Course Code	214	Type	Generic - Elective
Course Title	Foreign Language – II Lab		

Course Objectives:

1	To provide the student with listening, reading, speaking and writing skills in chosen foreign language.
2	To enhance the vocabulary in the selected Foreign Language.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Listening: Understand Simple Questions and Instructions.</p> <p>Reading: Understand Single Words and Sentences but also Signposts, Signs and Posters.</p> <p>Speaking: Provide Short Information about the Job and the Person.</p> <p>Writing: Fill in Forms and Provide Information About Name, Address, Nationality etc.</p>	5 + 1
2	<p>Listening: Understand Information about the Person and the Work.</p> <p>Reading: Understand Simple Letters, Appointments, Invitations and Information in Short Texts.</p> <p>Speaking: Answer Simple Questions About One's Working Field.</p> <p>Writing: Write Faxes and e-mails</p>	5 + 1
3	<p>Listening: Understand Standard Information Related to the Working Field.</p> <p>Reading: Understand Standard Letters and Texts about Working Processes and Product Descriptions.</p> <p>Speaking: Provide Information about the Job, the Departments, the Company, the Products and Processes in a Conversation or on the Phone.</p> <p>Writing: Answer Standard Inquiries, Make Quotations, Write Short Texts with a Familiar Content, Possibly Give Some Explanation and Answer Simple Questions.</p>	5 + 1
4	<p>Listening: Understand Complex Information Related to the Working Field in Meetings, Discussions and at Presentations.</p> <p>Reading: Understand Reports and Contracts with a Company-related Content.</p> <p>Speaking: Describe and Explain Work Processes and Projects. Report on Meetings and Presentations. Explain Concepts and Clarify Misunderstandings.</p> <p>Writing: Write Formal Standard Letters and Texts about One's Field of Expertise. Explain a Graphic and Reflect the Content.</p>	5 + 1
5	<p>Grammar: Future tense, imperfect tense, degrees of comparison, imperative mood. Script, Letters of alphabet, accents, sounds of groups of letters, punctuation marks, articles, nouns, sing./Pl, genders; mas. /fem. Structure of sentences & types like affirmative, negative interrogative & negative interrogative, Verbs: classes of verbs and conjugation patterns, Pronominal verbs; Present tense, The idea of auxiliary verb; prepositions; pronouns-subject, interrogative, relative, possessive, emphatic ; adjectives, adverbs</p>	5 + 1

Note:

Institute may offer any one of the following foreign languages to the students: SPANISH / FRENCH/ GERMAN/ JAPANESE / CHINESE

Learning Resources:

1	Text Books	Relevant Standard Text Books, Videos, Audio CDs for the language offered to the students.
2	Reference Books	
3	Supplementary Reading Material	
4	Websites	
5	Journals	

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Semester	II	Specialization	NA
Course Code	215	Type	Generic - Elective
Course Title	Industry Analysis - Desk Research		

Course Objectives:

1	To help the students understand the dynamics of a specific industry.
2	To acquaint students with various issues particular to an industry.
3	To provide a cross-functional perspective of the functioning of a business enterprise and an industry.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Industry Analysis – the Basics: Nature of the Industry, Players in the industry. Nature of competition from an economist's perspective. Market shares of top 3 & bottom 3 players. Possible Classification of players into Leaders, Challengers, Followers, Nichers. Positioning & Differentiation strategies of key players. Branding strategies. Pricing Policies, Cartelization if any and comments thereon. Capacity analysis – total capacity of the industry and break up capacity amongst key players, Planned future capacity additions. Geographical spread of plants/facilities/ capacities (Domestics as well as Global). Demand Supply balance in the industry, Key factors affecting demand. Key supply side constraints. Professional Trade bodies of the Industry. Business Functions carried out Online by the key players. Online presence.</p>	25 + 5
2	<p>Promoters & Management Ethos: Background of promoter groups of top 3 and bottom 3 players in the industry. Management ethos and philosophy. Brief profiles of CMDs, CEOs, and key top management personnel with their career highlights. Detailed profile of one distinguished top management personnel each from any two players in the Industry. CSR policy. Corporate Governance Initiatives. Initiatives towards social inclusion. Initiatives towards environment conservation.</p>	
3	<p>External Environment: Controlling ministry and / or regulator if any for the Industry Regulatory actions against the players for e.g. Action by SEBI, Competition Commission of India, MTRP Commission, etc. against irregularities , legal violations if any. Regulatory Policies at the state, national and global level and their impact on the industry as a whole with analysis of impact on top 3 players. Key National and Global issues affecting the industry. Key initiatives by the Government to promote the industry. Environmental issues.</p>	

4	<p>Financials: Profitability, Revenues, Margins of top 3 & bottom 3 players over the last 3 years and trends/changes therein. Sick players if any and their turnaround strategies, if any. Key factors contributing to costs. Ratio analysis of financial data for last 3 years for top 5 and bottom 5 companies in the industry.</p>	
5	<p>Recent Developments: Impact of key relevant provisions of the latest Fiscal policy on the industry and various players therein. Analysis of Key relevant provisions of latest Exim Policy in case of industries that are focused on Global Markets for exports or industries that have significant import components. Key Alliances in the past 5 years and their performance & impact on other players in the industry. Mergers & Acquisitions, if any. Technological developments. Labour unrest if any –reasons thereof and impact on the particular player and the industry as a whole. Emerging first generation entrepreneurs, if any, in the industry. Corporate wars & feuds in the industry, if any.</p>	

Note:

Students should work in groups of 3 to 5 each under the guidance of a faculty.
Students shall study various aspects of any TWO industries (group of similar business entities) of their choice.
Focus shall be the comparative and historical analysis across the players in the industry.
Students shall submit a structured detailed report.

The evaluation shall be made by a panel of two examiners. One of the examiners shall be the Internal Faculty. The other examiner may be an external faculty or a person from the relevant industry. The evaluation shall be based on the following criteria:

Report – 20 Marks
Presentation – 15 Marks
Question & Answer – 15 Marks

Learning Resources:

1	Text Books	--
2	Reference Books	--
3	Supplementary Reading Material	Annual reports of various companies Economic Times Business Standard Business Line Business Today Business India
4	Websites	Websites of various companies Websites of various ministries of the Government of India Websites of various trade bodies Websites of stock exchanges
5	Journals	Economic and Political Weekly

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MBA SYLLABUS: SEMESTER III

Semester	III	Specialization	NA
Course Code	301	Type	Generic - Core
Course Title	Strategic Management		

Course Objectives:

1	To expose participants to various perspectives and concepts in the field of Strategic Management
2	To help participants develop skills for applying these concepts to the solution of business problems
3	To help students master the analytical tools of strategic management.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>1.1 Understanding Strategy: Concept of strategy, Corporate, Business and Functional Levels of Strategy</p> <p>1.2 Introduction to Strategic Management: Meaning and Characteristics of strategic management, strategic management Vs. operational management</p> <p>1.3 Four Phases in Strategic Management Process: Stakeholders in business and their roles in strategic management</p> <p>1.4 Hierarchy of Strategic Intent: Meaning & attributes of strategic intent, Meaning of Vision, Process of envisioning, Meaning of mission, difference between vision & mission, characteristics of good mission statements, Business definition using Abell's three dimensions, objectives and goals, Linking objectives to mission & vision. Critical success factors (CSF), Key Performance Indicators (KPI), Key Result Areas (KRA)</p> <p>1.5 Analyzing Company's External Environment: Environmental appraisal Scenario planning – Preparing an Environmental Threat and Opportunity Profile (ETOP)</p> <p>Analyzing Industry Environment: Industry Analysis - Porter's Five Forces Model of competition, Entry & Exit Barriers, Strategic Group analysis</p>	7 + 2
2	<p>2.1 Analyzing Company's Internal Environment: Resource based view of a firm, meaning, types & sources of competitive advantage, analyzing Company's Resources and Competitive Position, VRIO Framework, competitive advantage, competitive parity & competitive disadvantage, Core Competence, characteristics of core competencies, Distinctive competitiveness, Benchmarking as a method of comparative analysis</p> <p>2.2 Value Chain Analysis Using Porter's Model: primary & secondary activities</p> <p>2.3 Organizational Capability Profile: Strategic Advantage Profile, Concepts of stretch, leverage & fit, ways of resource leveraging –concentrating, accumulating, complementing, conserving, recovering</p> <p>2.4 Portfolio Analysis: Business Portfolio Analysis - BCG Matrix – GE 9 Cell Model</p>	7 + 2

3	<p>3.1 Generic Competitive Strategies: Meaning of generic competitive strategies, Low cost, Differentiation, Focus – when to use which strategy</p> <p>3.2 Grand Strategies: Stability, Growth (Diversification Strategies, Vertical Integration Strategies, Mergers, Acquisition & Takeover Strategies, Strategic Alliances & Collaborative Partnerships), Retrenchment – Turnaround, Divestment, Liquidation, Outsourcing Strategies</p>	7 + 2
4	<p>4.1 Strategy Implementation: Components of a strategic plan, barriers to implementation of strategy, Mintzberg's 5 Ps – Deliberate & Emergent Strategies, Mc Kinsey's 7s Framework</p> <p>4.2 Organization Structures for Strategy Implementation: entrepreneurial, functional, divisional, SBU, Matrix, Network structures, Cellular/ Modular organization, matching structure to strategy, organizational design for stable Vs. turbulent environment,</p> <p>4.3 Changing Structures & Processes: Reengineering & strategy implementation – Principles of Reengineering, Six Sigma – Process consisting of defining, measuring, analyzing, improving & establishing steps, Lean Six Sigma (Concepts only)</p> <p>4.4 Corporate Culture: Building Learning organizations, promoting participation through technique of Management by Objectives (MBO), Total Quality Management (TQM)</p> <p>4.5 Strategy Evaluation: Operations Control and Strategic Control - Symptoms of malfunctioning of strategy – Use of Balanced Scorecard for strategy evaluation</p>	7 + 2
5	<p>5.1 Blue Ocean Strategy: Difference between blue & red ocean strategies, principles of blue ocean strategy, Strategy Canvas & Value Curves, Four Action framework</p> <p>5.2 Business Models: Meaning & components of business models, new business models for Internet Economy – E-Commerce Business Models and Strategies – Internet Strategies for Traditional Business – Virtual Value Chain</p> <p>5.3 Sustainability & Strategic Management: Threats to sustainability, Integrating Social & environmental sustainability issues in strategic management, meaning of triple bottom line, people-planet-profits.</p>	7 + 2

Learning Resources:		
1	Text Books	Strategic Management and Business Policy by Azhar Kazmi, Tata McGraw-Hill, Third Edition
2	Reference Books	Strategic Management by Ireland, Hoskisson & Hitt, Indian Edition, Cengage Learning, 2008 Edition Crafting and Executing Strategy- The Quest for Competitive Advantage by Thompson, Strickland, Gamble & Jain, Tata McGraw-Hill, 16 th Edition Concepts in Strategic Management & Business Policy by Thomas L. Wheelen & J. David Hunger, Pearson, 12 th ed.,
3	Supplementary Reading Material	The Essentials, Harvard Business Press, 2011 Edition Competitive Strategy: Techniques for Analyzing Industries and Competitors by Michael E. Porter, First Free Press Edition, 1980 Competing for the Future by Gary Hamel & C.K. Prahalad, TMGH. Blue Ocean Strategy by Kim & Mauborgne
4	Websites	http://www.thepalladiumgroup.com http://www.mckinsey.com
	Journals	Managing Core Competence of the Organization by Srivastava, Shirish C., Vikalpa: The Journal for Decision Makers, Oct-Dec2005, Vol. 30 Issue 4 Core Competence, Distinctive Competence, and Competitive Advantage: What Is the Difference? by Mooney, Ann. Journal of Education for Business, Nov/Dec2007, Vol. 83 Issue 2 The Five Competitive Forces That Shape Strategy by Porter, Michael E., Harvard Business Review, Jan2008, Vol. 86 Issue 1 Strategy & Society: The Link Between Competitive Advantage and Corporate Social Responsibility by Porter, Michael E.; Kramer, Mark R., Harvard Business Review, Dec2006, Vol. 84 Issue 12 From Competitive Advantage to Corporate Strategy by Porter, Michael E., McKinsey Quarterly, Spring88, Issue 2 Strategy and the Internet by Porter, Michael E., Harvard Business Review, Mar2001, Vol. 79 Issue 3 What Is Strategy? by Porter, Michael E., Harvard Business Review, Nov/Dec96, Vol. 74 Issue 6 The Strategy Concept I: Five Ps For Strategy by Mintzberg, Henry., California Management Review, Fall1987, Vol. 30 Issue 1 The Strategy Concept II: Another Look at Why Organizations Need Strategies by Mintzberg, Henry. , California Management Review, Fall1987, Vol. 30 Issue 1 The Pitfalls of Strategic Planning by Mintzberg, Henry., California Management Review, Fall1993, Vol. 36 Issue 1 Crafting strategy by Mintzberg, Henry; Hunsicker, J. Quincy. , McKinsey Quarterly, Summer88, Issue 3 The GE-McKinsey Nine-box Framework, McKinsey Quarterly, 2008, Issue 4 Reliance Telecom: Related or Unrelated Diversification? A Case Study by Sen, Subir, South Asian Journal of Management, Apr-Jun2011, Vol. 18 Issue 2 Competing Today While Preparing for Tomorrow by Abell, Derek F., Sloan Management Review, Spring99, Vol. 40 Issue 3

Semester	III	Specialization	NA
Course Code	302	Type	Generic - Core
Course Title	Enterprise Performance Management		

Course Objectives:

1	To acquaint the students with a perspective of different facets of management of an enterprise
2	To provide inputs with reference to the Investment Decisions along with the techniques for those decisions
3	To inculcate the evaluation parameters of enterprise in terms of expenses, control systems and pricing
4	To develop the knowledge of the concept of auditing and its applicability as performance management tool

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>1.1 Performance Management: Concept, Need, Linkages with Strategic Planning, Management Control and Operational Control</p> <p>1.2 Performance Evaluation Parameters: Financial – Responsibility Accounting – Concept of Responsibility Centers, Revenue Centre, Expense Centre - Engineered and Discretionary costs – Committed costs, Profit Centre, Investment Centers. ROI, ROA, MVA, EVA – DuPont analysis. (Numericals Not expected – Interpretation only) Limitations of Financial Measures</p> <p>1.3 Performance Evaluation Parameters: Non-Financial Performance measures – Balanced Scorecard, Malcolm Baldrige Framework.</p> <p>1.4 Measuring SBU Level Performance: Concept, Need, Linkages with Enterprise Performance Management – Goal Congruence. Transfer Pricing – Objective, Concept, Methods – Cost based, Market price based & Negotiated, Applicability of Transfer Pricing.</p>	7 + 2
2	<p>2.1 Capital Expenditure Control: Concept, Need, Process of Capital Budgeting, Types of capital expenditure decisions – pre-sanction, operational and post-sanction control of capital expenditure.</p> <p>2.2 Tools & Techniques of Capital Expenditure Control: Performance Index, Technical Performance Measurement, Post completion audit</p>	7 + 2
3	<p>3.1 Performance Evaluation Parameters for Banks: Customer Base, NPAs, Deposits, RoI, Financial Inclusion, Spread, Credit Appraisal, Investments.</p> <p>3.2 Performance Evaluation Parameters for Retail: ABC analysis, Sell Through Analysis, Multiple Attribute Method, Gross Margin Return on Investment (GMROI), GMROI as Gross Margin/Average Inventory at Cost</p>	7 + 2
4	<p>4.1 Performance Evaluation Parameters for Projects: Project Control Process: Setting base line plan, Measuring progress and performance, comparing plan against action, Taking action, Schedule variance (time overruns), Project Cost Variance (cost overruns)</p> <p>4.2 Performance Evaluation Parameters for Non-Profit: Features of Non-profit organizations, fund accounting, governance, product pricing, strategic planning & budget preparations, social audit.</p>	7 + 2

5	5.1 Audit Function as a Performance Measurement Tool: Financial Audit, Internal Audit, Cost Audit, Management Audit – Principles and Objectives (Audit Reports / Formats are expected to be discussed in the class from a performance measurement perspective).	7 + 2
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Learning Resources:		
1	Text Books	Management Control System by Robert Anthony & Vijay Govindrajana, Tata McGraw Hill Publishing Co. Ltd., 12 th Edition Management Control in Non Profit Organizations by Robert Anthony & David Young, McGraw Hill International Publication, 7 th Edition Retailing Management by Swapna Pradhan, TMGH, 3 rd Edition
2	Reference Books	Project Management by K.Nagarajan, New Age International Publications, 2 nd Edition Principles and Practices of Auditing by Ravindar Kumar & Virendar Sharma, PHI. Principles and Practices of Banking by Indian Institute of Banking & Finance, MacMillan India Ltd. Financial Management by Prasanna Chandra, TMGH, 7 th edition
3	Supplementary Reading Material	Management Control Systems by R.C. Sekhar, TMGH
4	Websites	-
5	Journals	IUP journal of Business strategy- by ICWFI Enterprise and Society- International journal of business history by Oxford University.

Semester	III	Specialization	NA
Course Code	303	Type	Generic - Core
Course Title	Startup and New Venture Management		

Course Objectives:	
1	To instill a spirit of entrepreneurship among the student participants.
2	To provide an overview of the competences needed to become an entrepreneur
3	To give insights into the Management of Small Family Business

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>1.1 Concept and Definitions: Entrepreneur & Entrepreneurship, Entrepreneurship and Economic Development; A Typology of Entrepreneurs;</p> <p>1.2 Entrepreneurial Competencies: The Entrepreneur's Role, Task and Personality -</p> <p>Entrepreneurial Skills: creativity, problem solving, decision making, communication, leadership quality; McClelland's N-Ach theory, self – analysis, personal efficacy, culture & values, risk-taking behaviour, technology backup.</p> <p>1.3 Factor Affecting Entrepreneurial Growth: Economic, Non-Economic Factors; EDP Programmes; Entrepreneurial Training;</p> <p>1.4 Traits/Qualities of an Entrepreneurs: Entrepreneur; Manager Vs. Entrepreneur, The Early Career Dilemmas of an Entrepreneur, Defining Survival and Success , Entrepreneurship as a Style of Management , The Entrepreneurial Venture and the Entrepreneurial Organization. Entrepreneurial Process</p> <p>1.5 Steps of entrepreneurial process : Deciding – Developing – Moving – Managing – Recognizing</p>	7 + 2
2	<p>2.1 Opportunity / Identification and Product Selection: Entrepreneurial Opportunity Search and Identification;</p> <p>2.2 Product Selection: Criteria to Select a Product</p> <p>2.3 Conducting Feasibility Studies: Project Finalization; Sources of Information.</p> <p>2.4 Entry strategies: New product, Franchising, Partial Momentum, Sponsorship and Acquisition</p> <p>2.5 Intellectual Property: Creation and Protection</p>	+ 2
3	<p>Small Enterprises and Enterprise Launching Formalities: Definition of Small Scale; Rationale; Objective; Scope; Role of SME in Economic Development of India; SME; Registration; NOC from Pollution Board; Machinery and Equipment Selection</p> <p>Project Report Preparation: Specimen of Project Report; Project Planning and Scheduling using Networking Techniques of PERT / CPM; Methods of Project Appraisal - economic viability and market feasibility, requirements of financial institutions, projected financial statement preparation.</p>	7 + 2

4	<p>4.1 Role of Support Institutions and Management of Small Business: Director of Industries; DIC;SIDO; SIDBI; Small Industries Development Corporation (SIDC); SISI; NSIC; NISBUED; StateFinancial Corporation SFC;</p> <p>Information : assistance from different organizations in setting up a new venture, technology parks, industrialcorporations, directorate of industries / cottage and small scale industries, SISI, Khadi & Village Industries Corporation / Board.</p> <p>DGS & DNSIC, export & import, how to apply for assistance – procedure, forms, proceduresfor obtaining contract from Railways, Defence, P & T etc., SIDBI.</p> <p>4.2 Laws :Liabilities under the Factories Act, Shops & Establishment Act, Industrial Employment (Standing Orders) Act,Environment Protection Act, Sale of Goods Act, maintenance & submission of statutory records & returns, understanding labour - management relationship</p>	7 + 2
5	<p>Case Studies :Diagnostic case studies of successful / unsuccessful entrepreneurs, key variables explaining success /failures, industrial sickness, industrial reconstruction, technology obsolescence, technology, transfer.</p>	7 + 2

Learning Resources:

1	Text Books	<p>The Dynamics of Entrepreneurial Development & Management by Desai, Vasant , Himalaya Publishing House, Delhi Managing Small Business by Longenecker, Moore, Petty and Palich, Cengage Learning, India Edition. Cases in Entrepreneurship by Morse and Mitchell, Sage South Asia Edition. Entrepreneurship – Indian Cases on Change Agents by K Ramchandran, TMGH. Entrepreneurship – The engine of growth, edited by Mark Rice and Timothy Habbershon, Published by Praeger Perspectives. Entrepreneurship: Theory, Process and Practice by Kuratko, D.F. & Hodgetts, R.M. Thomson Press. Entrepreneurship Development: Small Business Enterprises by Charantimath, P. , Pearson. A Guide to Entrepreneurship by David, Otes , Jaico Books Publishing House, Delhi. Indian Entrepreneurial Culture by A Gupta , New Age International.</p>
2	Reference Books	<p>Entrepreneurship: New Venture Creation by David H. Holt Entrepreneurship Development New Venture Creation by Satish Taneja, S.L.Gupta Project management by K. Nagarajan. Entrepreneurship: Strategies and Resources by Marc J. Dollinger The Culture of Entrepreneurship by Brigitte Berger. Entrepreneurship by Robert D. Hisrich, Michael P. Peters, Dean A. Shepherd Entrepreneurship As Strategy by G. Dale Meyer, Kurt A. Heppard New Vistas of Entrepreneurship: Challenges & Opportunities by A. Sahay,M.S.Chhikara Entrepreneurship and Small Business Management by Siropolis Lead like an Entrepreneur by Neal Thornberry Make The Move: Demystifying Entrepreneurship by Ishan Gupta, Rajat Khare</p>

3	Supplementary Reading Material	<p>The Creation of Wealth - A Tata Story by R M Lala , IBM Publishing B K Birla : A Rare Legacy, Image Inc. Family Business in India by Sudipta Dutta Innovation and Entrepreneurship by Peter F. Drucker You Too Can Become an Entrepreneur by Nalinaksha Mutsuddi Intrapreneurship by Gifford Pinchot III The Entrepreneurial Connection by Gurmeet Naroola Thought Leaders by Steven Brandt. Corporate Entrepreneurship by Vijay Sathe Corporate Entrepreneurship: Entrepreneurial Development Inside Organizations by Michael H.Morris, Donald F.Kuratko</p>
4	Websites	<p>www.nenonline.org/ www.tie.org/</p>
5	Journals	<p>Who is an entrepreneur? Is the wrong question, Gartner, W. (1988), American Journal of Small Business, 12(4), 11-32. Becoming an entrepreneur - a question of personality structure?; Hermann B.; Journal of Economic Psychology 18 (1997) Pp. 157 Entrepreneurial Folklore; Brockhaus, Robert H.;Journal of Small Business Management. Milwaukee: Jul 1987. Vol. 25, Issue3; p. 1 Do You Want to Keep Your Customers Forever?, B. J. Pine II, D. Peppers, and M. Rogers (1995), HBR (Reprint No. 95209) The Spirit of Entrepreneurship; Abdnor, James;Journal of Small Business Management. Milwaukee: Jan 1988. Vol. 26, Issue 1; p. 1 Opportunities and Entrepreneurship, Eckhardt, J., & Shane, S. (2003), Journal of Management, 29: 333-349. Why Entrepreneurship? A Worldwide Perspective; Shapero, Albert;Journal of Small Business Management. Milwaukee: Oct 1985. Vol. 23, Issue. 4; p. 1 Creating entrepreneurs in India; Leo Paul Dana;Journal of Small Business Management. Milwaukee: Jan 2000. Vol. 38, Issue. 1; p. 86 Some Empirical Aspects of Entrepreneurship; Evans, David S.; Leighton, Linda S.; American Economic Review, Jun 89, Vol. 79 Issue 3, p519 Survival Chances of Newly Founded Business Organizations; Bruderl, Josef, Preisdorfer, Peter, Ziegler, Rolf.;American Sociological Review. Albany: Apr 1992. Vol. 57, Issue. 2; p. 227. A Conceptual Framework for Describing the Phenomenon of New Venture Creation; Gartner, William B.;The Academy of Management Review. Briarcliff Manor: Oct 1985. Vol. 10, Issue. 4; p. 696 Some Thoughts on Business Plans, William A. Sahlman, HBS Note# 897101 The Five Stages of Small Business Growth, Neil C. Churchill, Virginia L. Lewis, HBR # 83301</p>

Semester	III	Specialization	NA
Course Code	304	Type	Generic –Core[6 Credits]
Course Title	Summer Internship Project		

Course Objectives:	
1	To offer the opportunity for the young students to acquire on job the skills, knowledge, attitudes, and perceptions along with the experience needed to constitute a professional identity.
2	To provide means to immerse students in actual supervised professional experiences
3	To give an insight into the working of the real organizations.
4	To gain deeper understanding in specific functional areas.
5	To appreciate the linkages among different functions and departments
6	To develop perspective about business organizations in their totality
7	To help the students in exploring career opportunities in their areas of interest

Summer Internship Project: At the end of Second Semester each student shall undertake a Summer Internship Project (SIP) for 8 weeks. The SIP may or may not have a Functional Focus, i.e. the student may take up a SIP in the intended area of specialization or in any functional area of management. The student shall submit a written structured report based on work done during this period.

Such projects may be research project – based on primary / secondary data or may be an operational assignment involving working by the student on a given task/assignment/project/ etc.

The report should be well documented and supported by –

- organizational profile,
- outline of the problem/task undertaken,
- relevant activity charts,
- tables, graphs, diagrams,
- references.

It should reflect the nature and quantum of work undertaken by the student. The report must reflect 400 man-hours of work and justify the same. The learning outcomes and utility to the organization must be specifically highlighted. This shall sensitize the students to the demands of the work place.

The completion of the SIP shall be certified by the Faculty Guide & approved by the Director of the Institute. The external organization (Corporate / NGO/ SME/ etc.) shall also certify the SIP work. The student shall submit TWO hard copies & one soft copy (CD) of the project report before 30th September in Sem III. The report may be printed on both sides of the paper.

The Institute shall conduct an Internal viva-voce for evaluation of the SIP for 30 marks. The Panel shall comprise of the Internal Faculty Guide & One faculty nominated by the Director. There shall be an external viva-voce for the SIP for 100 marks.

The examiner's panel for the same shall include one external faculty member nominated by the University and one internal faculty member nominated by the Director.

The Internal & the External viva-voce shall evaluate the project based on:

- Actual work undertaken by the student
- Student's understanding of the organization and business environment
- Outcome of the project
- Utility of the project to the organization
- Basic analytical capabilities

**MBA SYLLABUS: SEMESTER III
MARKETING MANAGEMENT - SPECIALIZATION**

University of Pune

Semester	III	Specialization	Marketing
Course Code	305MKT	Type	Subject - Core
Course Title	Contemporary Marketing Research		

Course Objectives:

1	To give the students an understanding of marketing research from both user's (management) and doer's (the researchers) perspective.
2	To design and produce, evaluate a research proposal & understand the quality of research studies.
3	To learn the basic skills to conduct professional marketing research.
4	To understand the applications of business research tools in Marketing decision making.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Introduction to Marketing Research & Applications of Research Designs Meaning & role of Marketing Research, Role of Information in Marketing Decisions, Marketing Research – Sequence of Steps, Meaning & Types of Research Designs – Exploratory, Descriptive & Causal, concept of validity & reliability of a research study Problem Formulation, The decision maker & the environment, alternative courses of action, objectives of decision maker, consequences of alternative courses of action, Translating decision problem to research problem, Preparing & Evaluating Marketing Research proposal. Formulating hypotheses using exploratory research techniques like literature survey, experience survey & analysis of cases. Meaning of Qualitative research & applications of Depth Interviews & Focus Groups in marketing Applications of longitudinal studies in consumer panels, retail shop audit, media audience tracking studies like TRP, brand tracking studies</p>	6+2
2	<p>Data Collection – Questionnaires & Scaling Designing questionnaires & observation forms for different marketing research situations – study of consumer behavior, advertising copy research, media research like readership surveys, opinion polls, retail surveys to understand market potential, channel behavior, mystery shopping etc. Scale Construction, Specifying domain, generating scale items, Basic Scaling Issues like number of scale points, odd number Vs. even number of options, balanced Vs. unbalanced scale, forced Vs. unforced scale, verbal & pictorial description of response categories Scale Purification Process, Deleting scale items using correlations with total score, Reliability Testing using Chronbach Alpha, Validity Testing – Face Validity, Content Validity, Construct Validity, Convergent Validity & Discriminant Validity Applications of Likert, Semantic Differential & Staple Scales for positioning research, brand research, attitudinal studies, customer satisfaction research</p>	8+2
3	<p>Experimental Designs & Sampling Experimentation in Marketing Research, Basic/ classical designs: before – after, before – after with control group, after only with control group, four group – six study design. (Applications expected with interpretation of data) Statistical Designs, Randomized Block Design, Latin Square Design, Factorial Design, Applications related to Test Marketing, study of effectiveness of advertising & sales promotional campaigns Case studies on sampling decisions like defining universe, sampling unit, sampling element, choice of sampling frame, determining sample size for probability & non-probability sampling methods & choice of final sample by using appropriate sampling methods in a step by step manner</p>	6+2

4	<p>Data Analysis – I Testing hypothesis for one mean, two means, two proportions. (Numerical expected with practical examples) Chi Square Test, Observed & Expected Frequencies, ANOVA – One & Two way (numerical expected with practical examples) Conjoint Analysis, Conceptual basis, procedure, type of data required, key decision, how to interpret output, applications to study trade off patterns of consumers as related to different levels of marketing mix elements (Question on interpretation of output is expected) Factor Analysis, Conceptual basis, type of data required, procedure, PCA, Interpreting factor matrix (factor loadings, communalities, Eigen value), determining number of factors using latent root criteria & scree test, interpreting & naming factors, applications in consumer behavior studies (Question on interpretation of output is expected)</p>	7+2
5	<p>Data Analysis – II Cluster Analysis, Conceptual basis, type of data required, procedure, clustering methods – single linkage rule, how to interpret output, applications related to psychographic & lifestyle market segmentation (Question on interpretation of output is expected) Multi- dimensional Scaling & Perceptual Mapping, Conceptual basis, type of data required, key decision- attribute based versus non-attribute based approaches, procedure, how to interpret output, applications related to target market selection & positioning (Question on interpretation of output is expected) Discriminant Analysis (Two Group Case), Conceptual basis, type of data required, determining the coefficients, interpreting discriminant function & classifying subjects using discriminant function, applications in marketing (Question on interpretation of output is expected)</p>	8+2

Learning Resources:		
1	Text Books	Marketing Research - An Applied Orientation by Malhotra and Dash, Pearson Education. Marketing Research by Churchill, Jr, G.A. and D. Iacobucci (2005), South Western: Thomson, 9 th Edition. Marketing Research, Zikmund, Babin, Cengage Learning
2	Reference Books	Marketing Research by Boyd, H.P., R. Westfall and S. F. Stasch. (2004), Delhi: A.I.T.B.S., 7 th Edition. Marketing Research by Burns, G.A. and D. Bush (2006), South Western: Thomson, 9 th Edition. Marketing Research by Green, P.E., Tull, D.S. and G. Albaum (2007), New Delhi: Prentice Hall of India, 5 th Edition.
3	Supplementary Reading Material	Marketing Research by Luck, D.J. and R.S. Rubin (2005), New Delhi: Prentice Hall of India, 7th Edition. Marketing Research by Tull, D.S. and D.I. Hawkins (2004), New Delhi: Prentice Hall of India, 6 th Edition.
4	Websites	http://www.nielsen.com/in/en.html http://www.ipsos.com/ https://www.globalopinionpanels.com/home www.jdpower.com/ http://www.ncaer.org/ http://www.marketresearch.com/
5	Journals	A Paradigm for developing Better Measures of Marketing Constructs, by Churchill, G. A., Jr. , Journal of Marketing Research, 26 (February) 1979, pp.64-73. A Comparison of Multidimensional Scaling Methods for Perceptual Mapping by Bijmolt, Tammo H. A.; Wedel, Michel. Journal of Marketing Research (JMR). May99, Vol. 36 Issue 2, p277-285. A survey of the challenges and pitfalls of cluster analysis application in market segmentation by Tuma, Michael N.; Decker, Reinhold; Scholz, Soren W., International Journal of Market Research. 2011, Vol. 53 Issue 3, p391-414. Improving the Predictive Power of Conjoint Analysis: The Use of Factor Analysis and Cluster Analysis by Hagerty, Michael R., Journal of Marketing Research (JMR). May85, Vol. 22 Issue 2, p168-184. An Examination of the Factors Influencing Consumers' Attitudes Towards Social Media Marketing by Akar, Erkan; Topcu, Birol., Journal of Internet Commerce. Jan-Mar2011, Vol. 10 Issue 1, p35-67. Setting Sales Quotas with Conjoint Analysis by Darmon, René Y., Journal of Marketing Research , Feb1979, Vol. 16 Issue 1, p133-140.

Semester	III	Specialization	Marketing
Course Code	306MKT	Type	Subject - Core
Course Title	Consumer Behaviour		

Course Objectives:

1	To highlight the importance of understanding consumer behavior in Marketing.
2	To study the environmental and individual influences on consumers
3	To understand consumer behavior in Indian context.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Environmental Influences on Consumer Behaviour Basics: Meaning of Customers & Consumers, Consumer Roles, Consumerism & De-marketing Culture & Sub- Culture: Meaning, Characteristics & Relevance to Marketing Decisions Social Class: Meaning, Measurement, Effect on Lifestyles Social Groups: Meaning & Group Properties & Reference Groups Family: Family Life Cycle & Purchasing Decisions Marketing Mix : Influence of marketing mix variables	10 + 2
2	Individual Determinants of Consumer Behavior Personality & Self Concept: Meaning of Personality, Influence on Purchase Decisions Motivation & Involvement: Types of Buying Motives, Motive Hierarchy, Dimensions of Involvement Learning & Memory: Meaning & Principal Elements of Learning, Characteristics of Memory Systems, Recall Attitudes: Meaning & Characteristics, Strategies for Changing Attitudes, Intentions & Behaviors	9 + 2
3	Consumer Decision Making Process Problem Recognition: Types of consumer decisions, types of Problem Recognition, Utilizing problem recognition information Search & Evaluation: Types of information, Sources of Information Search, Search, Experience and Credence Aspects -Marketing Implications Situational Influences on Purchase Decisions Purchasing Process: Why do people shop? Store & Non-store Purchasing Processes, Purchasing Patterns. Post-purchase Evaluation & Behavior: Consumer Satisfaction, Dissatisfaction, Customer Delight, Consumer Complaint Behavior, Post-Purchase Dissonance.	8 + 2
4	Consumer Behavior Models Howard Sheth Model Engel – Blackwell – Miniard Model	4 + 2
5	Indian Consumer Demographic & Socio-economic Profile Measurement of social classes in India using Socio-Economic Classes (SEC) in Urban & Rural Markets Living Standards Measures (LSM). Characteristics of BoP Consumers.	4 + 2

Learning Resources:		
1	Text Books	Consumer Behaviour by David L. Loudon & Albert J. Della Bitta, Tata McGraw Hill, 4 th Edition Consumer Behaviour, Hawkins, Mothersbaugh, Tata McGraw Hill Consumer Behaviour, Batra, Kazmi, Excel Books
2	Reference Books	Consumer Behavior by Leon Schiffman, Leslie Kanuk, S.Ramesh Kumar, Pearson, 10 th Edition Consumer Behaviour by Engel, Blackwell & Miniard Consumer Behavior - An Indian perspective by Dr. S.L Gupta, Sumitra Pal, Sultan Chand and Sons Consumer Behavior - In Indian Perspective by Suja R. Nair, Himalaya Publishing House. Why we Buy: The Science of Shopping by Paco Underhill, Simon and Schuster Paperbacks.
3	Supplementary Reading Material	We are like that only by Rama Bijapurkar, Penguin The Marketing White Book, Business World Economic Times, Business Standard, Mint, Business world. (Brand equity & Brand wagon)
4	Websites	http://www.censusindia.gov.in/default.aspx http://www.ncaer.org/ http:// www.consumerpsychologist.com
5	Journals	The Disciplinary Status of Consumer Behavior: A Sociology of Science Perspective on Key Controversies by Macinnis, Deborah J.; Folkes, Valerie S., Journal of Consumer Research. Apr2010, Vol. 36 Issue 6, p899-914. Consumer Learning and Its Impact on Store Format Selection- Detail Only by van Waterschoot, Walter; Kumar Sinha, Piyush; Van Kenhove, Patrick; De Wulf, Kristof., Journal of Retailing & Consumer Services. May2008, Vol. 15 Issue 3, p194-210. Interpersonal Influence on ConsumerBehavior: An Attribution Theory Approach by Calder, Bobby J.; Burnkrant, Robert E. Journal of Consumer Research. Jun77, Vol. 4 Issue 1, p29-38. 10p. Satisfaction Attributions and Consumer Complaint Behavior by Krishnan, S.; Valle, Valerie A., Advances in Consumer Research. 1979, Vol. 6 Issue 1, p 445-449.

Semester	III	Specialization	Marketing
Course Code	307MKT	Type	Subject - Elective
Course Title	Integrated Marketing Communications		

Course Objectives:	
1	To provide an overview of the range of tools available for Marketing Communications
2	To provide an understanding of the basic principles of planning and execution in Marketing Communications
3	To acquaint the students with concepts and techniques in the application for developing and designing an effective advertising and sales promotion program.
4	To sensitize students to the various facets of advertising, public relation and promotion management.
5	To develop a managerial perspective and an informed decision-making ability for effective and efficient tackling of promotional situations.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction of IMC: IMC; IMC components – the foundation, advertising tools, promotional tools, integrated tools, refining the IMC program; The Value of IMC plans – information technology, changes in channel power, increase in competition, brand parity, integration of information, decline in the effectiveness of mass-media advertising; The role of IMC	5 + 1
2	Advertising: Overview of advertising management; Advertising and IMC process; Choosing an advertising agency; Advertising planning and research; Advertising goals – building brand images, providing information, persuasion, supporting marketing efforts, encouraging action; Advertising budget; Media Selection; The Creative Brief – objective, target audience, message theme, support, constraints; Advertising design; Advertising media selection.	5 + 1
3	Sales Promotion: The scope and role of sales promotion; Consumer oriented sales promotion; Trade oriented sales promotion; Coordinating sales promotion and advertising; Sales promotion abuse; Personal selling	5 + 1
4	Public Relations, Publicity and Corporate Adverting: Public Relations Publicity and Corporate adverting; Public Relations functions; Creating positive image building activities; Preventing or reducing image damage; sponsorship and event marketing; Role of internet in PR.	5 + 1
5	Evaluation Monitoring and Control: Measuring the effectiveness of promotional program; Conducting research to measure advertising effectiveness; Testing process; Establishing the program for measuring the advertising effects; Measuring the effectiveness of other program elements	5 + 1

Learning Resources:		
1	Text Books	Integrated Advertising, Promotion and Marketing Communication by Clow, Kenneth & Black, Donald, Pearson Education, New Delhi. Advertising and Promotion by Belch, George and Belch, Michael, Tata McGraw Hill, New Delhi.
2	Reference Books	Advertising Management by Jethwaney, Jaishree and Jain, Shruti, Oxford University Press, New Delhi. Advertising and Promotions, Semenik Allen, Cengage Learning Advertising and Promotion, SHH Kazmi, Satish Batra, Excel Books Advertising and Promotions, Shah, D'Souza, Tata McGraw Hill
3	Supplementary Reading Material	Advertising Principles and Practice by Wells, William, Burnett, John and Moriarty, Sandra, Pearson Education, New Delhi.
4	Websites	http://www.ascionline.org/ http://www.aaaindia.org/ http://www.jpssm.org/
5	Journals	The Evolution of IMC: IMC in a Customer-driven Marketplace, by Schultz, Don E., Patti, Charles H. Journal of Marketing Communications. Apr2009, Vol. 15 Issue 2/3, p75-84. Comparing the Application of Integrated Marketing Communication (IMC) In Magazine Ads across Product Type and Time, by Grove, Stephen J., Carlson, Les, Dorsch, Michael J. Journal of Advertising. Spring2007, Vol. 36 Issue 1, p37-54. The Brand Capability Value of Integrated Marketing Communication (IMC), by Ratnatunga, Janek, Ewing, Michael T. Journal of Advertising. Winter2005, Vol. 34 Issue 4, p25-40 Performance Auditing of Integrated Marketing Communication (IMC) Actions and Outcomes, by Reid, Mike. Journal of Advertising. Winter2005, Vol. 34 Issue 4, p41-54 Integrated Marketing Communication (IMC) and Brand Identity As Critical Components Of Brand Equity Strategy, by Madhavaram, Sreedhar, Badrinarayanan, Vishag, McDonald, Robert E. Journal of Advertising. Winter2005, Vol. 34 Issue 4, p69-80 IMC: Has anything really changed? A new perspective on an old definition, by Luck, Edwina, Moffatt, Jennifer. Journal of Marketing Communications. Dec2009, Vol. 15 Issue 5, p311-325. Perceptions of IMC after a Decade of Development: Who's at the Wheel, and How Can We Measure Success? By Swain, William N., Journal of Advertising Research. Mar2004, Vol. 44 Issue 1, p46-65. The Self-Activation Effect of Advertisements: Ads Can Affect Whether and How Consumers Think about the Self by Trampe, Debra, Stapel, Diederik A., Siero, Frans W. Journal of Consumer Research. Apr2011, Vol. 37 Issue 6, p1030-1045 How Advertising Affects Sales: Meta-Analysis of Econometric Results by Assmus, Gert, Farley, John U., Lehmann, Donald R. Journal of Marketing Research (JMR). Feb1984, Vol. 21 Issue 1, p65-74. The March to Reliable Metrics by Smit, Edith G., Neijens, Peter C. Journal of Advertising Research. Mar2011 Supplement, Vol. 51, p124-135.

Semester	III	Specialization	Marketing
Course Code	308MKT	Type	Subject - Elective
Course Title	Product Management		

Course Objectives:	
1	To make the students appreciate the various facets of the job of a product manager.
2	To highlight the strategic role of product management in organizational and functional context.
3	To emphasize the financial and other metrics of effective product management.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to Product Management: Product management as a basis of marketing organization structure. Role of product manager, skills required for product management. Product management in consumer product industry Vs. industrial product industry. Overview of product level marketing plans	3 + 1
2	Defining Competitive Set & Category Attractiveness Analysis Levels of Market Competition & Its Product Strategy Implications: product form level, product category level, generic level, budget competition Methods of Determining Competitors: managerial judgment & customer based measures, competitor selection, sources of competitor information – primary & secondary sources Assessing competitors' current objectives & strategies, differential advantage analysis, Predicting competitors' future strategies. Category attractiveness analysis through aggregate market factors & category factors	6 + 1
3	Understanding Consumer Needs & Converting into Products 3.1 Capturing consumer voice , converting it into ideas, concepts & products, Using QFD & Kano diagram for new product development, Selecting product – price performance levels, 3.2 New Product Failure	5 + 1
4	Developing Product Strategy: 4.1 Elements of a product strategy, setting objectives, selection of strategic alternatives – increasing sales, market share, profitability 4.2 Packaging & Labeling design 4.3 Positioning: Choice of customer targets, competitor targets & core strategy – cost/price, non-price strategies 4.4 Product strategy over the life cycle – strategies for introduction, growth, maturity & decline stages	6 + 1
5	Financial Analysis & Performance Appraisal for Product Management 5.1 Sales Analysis: Overview, Value of sales analysis, roadblocks. 5.2 Profitability Analysis: Conventional product profit accounting, Contribution oriented systems, Using the contribution margin rate. 5.3 Strategic Framework for Control: Price-quantity decomposition, penetration – Market size decomposition 5.4 Capital Budgeting for Product Strategy: Overview and Basics 5.5 Marketing Metrics: Customer Based Metrics, Product-Market Based Metrics, Marketing Mix Metrics, Web Metrics.	5 + 1

Learning Resources:		
1	Text Books	Product Management by Lehmann & Winer, TMGH, 4 th Edition Product & Brand Management, U.C. Mathur, Excel books
2	Reference Books	Product Management by Dr. C. Anandan, TMGH
3	Supplementary Reading Material	Selling Blue Elephants by Moskowitz and Gofman, Wharton School Publishing, Pearson Power. Twenty-one Immutable Laws of Marketing by Ries & Trout
4	Websites	http://www.entrepreneur.com/ http://www.ibef.org/
5	Journals	A Combined QFD and Integer Programming Framework to Determine Attribute Levels for Conjoint Study by Chaudhuri, Atanu; Bhattacharyya, Malay., International Journal of Production Research. Dec2009, Vol. 47 Issue 23, p6633-6649. The Application of Quality Function Deployment (QFD) in Product Development - The Case Study of Taiwan Hypermarket Building by Shih-Shue Sher., Journal of American Academy of Business, Cambridge. Mar2006, Vol. 8 Issue 2, p292-295. QFD Analysis: From Customer Needs to Design Specs by Gould, Lawrence S., Automotive Design & Production. Jun2006, Vol. 118 Issue 6, p56-57. Virtual Product Experience and Customer Participation—A Chance for Customer-centred, Really New Products by Füller, Johann; Matzler, Kurt., Technovation. Jun/Jul2007, Vol. 27 Issue 6/7, p378-387. Developing New-to-the-Firm Products: The Role of Micro-political Strategies by Sethi, Rajesh; Iqbal, Zafar; Sethi, Anju., Journal of Marketing. Mar2012, Vol. 76 Issue 2, p99-115. 17p. 1 The Impact of Product Market Strategy-Organizational Culture Fit on Business Performance by Yarbrough, Larry; Morgan, Neil; Vorhies, Douglas., Journal of the Academy of Marketing Science. Aug2011, Vol. 39 Issue 4, p555-573 Transforming the Nature and Scope of New Product Development by Pitta, Dennis; Pitta, Elizabeth., Journal of Product & Brand Management. 2012, Vol. 21 Issue 1, p35-46. 12p Why Most Product Launches Fail? by Schneider, Joan; Hall, Julie. Harvard Business Review. Apr2011, Vol. 89 Issue 4, p21-23. Do You Need a New Product-Development Strategy? by MacCormack, Alan; Crandall, William; Henderson, Paul; Toft, Peter., Research Technology Management. Jan/Feb2012, Vol. 55 Issue 1, p34-43. The Impact of the Corporate Mind-set on New Product Launch Strategy and Market Performance by Talke, Katrin; Hultink, Erik Jan., Journal of Product Innovation Management. Mar2010, Vol. 27 Issue 2, p220-237. Evolution of Firms' Product Strategy Over the Lifecycle of Technology-Based Industries: A Case Study of the Global Mobile Phone Industry, 1980-2009 by Giachetti, Claudio; Marchi, Gianluca., Business History. Dec 2010, Vol. 52 Issue 7, p1123-1150. Competitive Strategies For NewProduct Marketing Over The Life Cycle by Kotler, Philip., Management Science. Dec1965, Vol. 12 Issue 4, pB-104-B-119. Assessing Marketing Performance: Don't Settle for a Silver Metric by Ambler, Tim; Roberts, John H. Journal of Marketing Management. Sep2008, Vol. 24 Issue 7/8, p733-750. Marketing and Firm Value: Metrics, Methods, Findings, and Future Directions by Srinivasan, Shuba; Hanssens, Dominique M. Journal of Marketing Research (JMR). Jun2009, Vol. 46 Issue 3, p293-312. 20p. Taking on the Metrics Challenge by Patterson, Laura. Journal of Targeting, Measurement & Analysis for Marketing. Sep2007, Vol. 15 Issue 4, p270-276. 7p. 1

Semester	III	Specialization	Marketing
Course Code	309MKT	Type	Subject - Elective
Course Title	Strategic Brand Management		

Course Objectives:

1	To introduce different approaches to measuring brand equity.
2	To provide conceptual framework for managing brands strategically.
3	To emphasize the role of brands, the concept of brand equity and the advantages of creating strong brands.
4	To provide insights into how to create profitable brand strategies by building, measuring and managing brand equity.

Syllabus:

Unit Number	Contents	Number of Sessions
1	1.1 Introduction to Brand Management: What is a brand? Why do brands matter? Branding challenges and opportunities , Brand equity concept , Strategic brand management process , Identifying and establishing brand positioning, Planning and implementing brand marketing programs, Measuring and interpreting brand performance, Growing and sustain brand equity 1.2 Brand Equity Models: Brand Asset Valuation, Aaker Model, BRANDZ ,Brand Resonance	6 + 1
2	2.1 Identifying and Establishing Brand Positioning and Values: Customer based Brand equity , Brand knowledge, Sources of brand equity - Brand Awareness, Brand Image, The Four steps of brand building, Creating customer value, Identifying and establishing brand positioning, Positioning guidelines	5 + 1
3	3.1 Planning and Implementing Brand Marketing Programs: Choosing brand elements to build brand equity, Options and tactics for Brand, New perspectives on marketing, Integrating marketing communication to build brand equity, Conceptualizing the leveraging process, Co- branding, Celebrity Endorsements	5 + 1
4	4.1 Measuring and Interpreting Brand Performance: The brand value chain, Designing brand tracking studies, Capturing customer mind set through quantitative research techniques	4 + 1
5	5.1 Growing and Sustaining Brand Equity: Brand architecture, Brand hierarchy, Designing brand strategy, New products, Brand extensions- advantage and disadvantage, Reinforcing brands, Revitalizing brands, Brand failures.	5 + 1

Learning Resources:		
1	Text Books	Strategic Brand Management by Kevin Lane Keller, Pearson, 3 rd Edition Strategic Brand Management by J N Kapferer, Kogan Page, 4 th Edition.
2	Reference Books	Building Brand Equity by Aaker Branding Concepts & Process by Debashish Pati Brand Positioning Strategies for Competitive Advantage by Subrato Sen Gupta Managing Indian Brands by S. Ramesh Kumar Product & Brand Management, U. C. Mathur, Excel Books
3	Supplementary Reading Material	The Economic Times – Weekly Brand Equity Supplement The Financial Express - Weekly Brand Wagon Supplement The Business Standard – Weekly Strategist Supplement
4	Websites	http://www.ibef.org/ http://www.brandequity.com/
5	Journals	How Important Are Brands? A Cross-Category, Cross-Country Study by Fischer, Marc; Völckner, Franziska; Sattler, Henrik., Journal of Marketing Research (JMR), Oct2010, Vol. 47 Issue 5. Increasing shareholder value through building Customer and Brand Equity by Bick, Geoffrey N. C., Journal of Marketing Management, Feb2009, Vol. 25 Issue 1/2 Conceptualizing, Measuring, Managing Customer-Based Brand Equity by Keller, Kevin Lane., Journal of Marketing, Jan1993, Vol. 57 Issue 1. Assessing long-term brand potential by Keller, Kevin Lane; Lehmann, Donald R., Journal of Brand Management, Sep2009, Vol. 17 Issue 1. Measurement of Brand Equity of Brand India by Patel, Pratik C. Journal of Marketing & Communication, Jan2010, Vol. 5 Issue 3. Exploring Customer Brand Engagement: Definition and Themes, by Hollebeek, Linda. Journal of Strategic Marketing. Nov 2011, Vol. 19 Issue 7, p555-573.

Semester	III	Specialization	Marketing
Course Code	310MKT	Type	Subject - Elective
Course Title	Personal Selling Lab		

Course Objectives:

1	To outline the areas in which sales executives make decisions
2	To emphasize the role of sales executives as planners of sales operations and a key figure in implementing marketing strategies.
3	To give hands on inputs on the selling process.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>1.1 Introduction to Personal Selling & Salesmanship: Defining Personal selling and salesmanship, Selling as a profession, Objectives and importance of personal selling, Essentials of Personal Selling, Traditional & Modern Selling Approach, Ethics in Selling, Role of Selling in Marketing, Types of selling, Qualities of Winning Sales Professionals-Physical, Mental, Social and Character Traits.</p> <p>1.2 Introduction to Theories of Selling: AIDA, Right set of circumstances theory of selling, Buying Formula theory of selling, Behavioral Equation theory</p>	5 + 1
2	<p>Personal Selling Process-I:Prospecting- objectives, sources and methods, Lead Generation, Getting appointment, Sales Responsibilities and Preparation; Pre approach-step toward sales planning-elements of sales call planning; Customer need discovery & Analysis; Approach- sales presentation/ demonstration- selection of appropriate presentation method, essentials of presentation, sales presentation mix- persuasive communication, visual presentation and dramatization, Use of questions- Direct questions, non-directive questions, rephrasing, redirect questions;</p>	5 + 1
3	<p>Personal Selling Process-II: Handling objection- hidden, stalling, no need, money objection, etc., objection handling techniques, Closing the sale- reading buying signals, closing techniques- the alternative choice, assumptive, the compliment, the summary, the continuous, the minor point, the tea account, the standing room and the probability; Follow up after sales- Discuss service requirements, handling complaints, Key Account Management.</p>	5 + 1
4	<p>Personal Selling Skills: Negotiation, Communication, Listening Skills, Presentation and Demonstration, , Body Language- Space, Moments, Eye Contacts & Postures, Follow up Calls, Writing Effective Sales Letters and e-mails, Positive Mental Attitude, Goal Setting, Effective Dressing, Managing Yourself and Time, Cold Call Mechanism.</p>	5 + 1
5	<p>Personal Selling: Applications and Situations: Selling of services- financial, IT and telecommunication, advertising, education (Coaching and institutions); Selling of industrial products- raw material, capital goods, supplies; Selling of consumer goods- convenience, shopping and specialty goods; International selling; Selling in rural markets; Selling high and low involvement products; Selling to new and existing customers/ Market; Selling to end users, intermediaries, government departments and agencies; Selling individual and groups.</p>	5 + 1

Learning Resources:		
1	Text Books	Fundamentals of Selling by Charles M. Futrell, Tata McGraw Hill 10 th Edition A B C' s of Selling by Charles M. Futrell, AITBS, New Delhi, World Class Selling by Roy Chitwood, JAICO Publishing House
2	Reference Books	Successful Selling Solutions by Julian Clay, Viva Books Value Added Selling by Tom Reilly, TMGH 2004 Edition. Achieving Sales Excellence by Howard Stevens, Viva Books Pvt. Ltd. Power Sales Presentation by Stephan Schiffman, Adams Media Corporations. Sales Essentials by Stephan Schiffman, Avon Massachusset
3	Supplementary Reading Material	Smarter Selling by Keith Dugdale & Lambert, Prentice Hall. Successful Sales- Get Brilliant Results Fast by Pauline Rowson, Viva Books. Successful Selling Skills by Richard Denny, The Sunday Times. The Art and Science of Negotiation by Raiffa H, Cambridge: Belknap/Harvard Press, 1982. Getting to Yes by Fisher R and Ury W, Harmondsworth Middlesex, GB Penguin Books, 1983.
4	Websites	www.professionalsalestips.com www.eyeeonsales.com www.semi.org www.salecareersonline.com
5	Journals	Journal of Personal Selling & Sales Management Journal of Consumer Marketing Sales and Marketing - Nielsen Business Media

Semester	III	Specialization	Marketing
Course Code	311MKT	Type	Subject - Elective
Course Title	Qualitative Marketing Research		

Course Objectives:

1	To introduce the qualitative research applications in Marketing
2	To familiarize commonly used strategies in qualitative research

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to Qualitative Research Meaning & role of Qualitative Research, Situations in which QR is needed, concept of validity & reliability in qualitative research, limitations Difference between qualitative & quantitative research, career opportunities in Qualitative Research, Skills required Depth Interviews: Concept, Use, Techniques to elicit data Focus Groups: Role & qualities of a Moderator, Setting, Number of groups, Number of participants & composition, Duration of focus groups	6+1
2	Projective Techniques Principle of projection, applications Association, construction, expression based techniques How to design & interpret Zaltman's Metaphor Elicitation Techniques	3+1
3	Observation Methods in Qualitative Research Types of Observations Designing Observation forms	6+1
4	Ethnography & Grounded Theory: Concept Overview, Methodological details, Types, Applications, Limitations.	6+1
5	Physiological Measures: Developments in neuro-sciences, applications in marketing research & marketing	4+1

Learning Resources:		
1	Text Books	An Introduction to Qualitative Research by Uwe Flick, 4 th Edition, SAGE Research Methods in the Social Sciences by Bridget Somekh & Cathy Lewin, 5 th Edition, SAGE India
2	Reference Books	Qualitative Research Methods in Public Relations and Marketing Communications by Christine Baymon & Immy Holloway, 1 st Edition, Routledge
3	Supplementary Reading Material	Qualitative Journeys –Minichiello& Kottler, SAGE
4	Websites	http://www.qualitative-research.net/ http://slu.edu/organizations/qrc/QRjournals.html/
5	Journals	Methodology or "Methodolatry"? An evaluation of focus groups and depth interviews, by David Stokes; Richard Bergin., Qualitative Market Research: An International Journal. Feb2006, Vol. 9 Issue 1, p26-37. A Critical Comparison of Offline Focus groups, Online Focus groups and e-Delphi, by Brügger, Elisabeth; Willems, Pieter., International Journal of Market Research. 2009, Vol. 51 Issue 3, p363-381 Quantification of Transcripts from Depth Interviews, Open-ended Responses and Focus Groups by Schmidt, Marcus., International Journal of Market Research. 2010, Vol. 52 Issue 4, p483-508. Interpreting Consumer Perceptions of Advertising: An Application of the Zaltman Metaphor Elicitation Technique, by Coulter, Robin A.; Zaltman, Gerald; Coulter, Keith S., Journal of Advertising. Winter2001, Vol. 30 Issue 4, p1-21. Using the Zaltman Metaphor Elicitation Technique to Understand Brand Images, by Coulter, Robin Higie; Zaltman, Gerald., Advances in Consumer Research. 1994, Vol. 21 Issue 1, p501-507. Hanging Around with People. Ethnography in Marketing Research and Intelligence Gathering, by Boddy, Clive R., Marketing Review. Summer2011, Vol. 11 Issue 2, p151-163 Doing Sensory Ethnography in Consumer Research, by Valtonen, Anu; Markuksela, Vesa; Moisander, Johanna., International Journal of Consumer Studies. Jul2010, Vol. 34 Issue 4, p375-380. The Influence of Information about Labour Abuses on Consumer Choice of Clothes: A Grounded Theory Approach, by Valor, Carmen., Journal of Marketing Management. Sep2007, Vol. 23 Issue 7/8, p675-695.

Semester	III	Specialization	Marketing
Course Code	312MKT	Type	Subject - Elective
Course Title	Customer Relationship Management		

Course Objectives:	
1	To introduce the core concepts of CRM paradigm
2	To emphasize CRM as a business strategy
3	To highlight the role of appropriate business process and technology management capabilities in managing customer relationships.
4	To help the students understand the organizational context of CRM.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Fundamentals of CRM:</p> <p>1.1 Understanding Relationships: What is a relationship? Relationship Quality, Why companies want relationships with customers? Why companies do not want relationships with customers? Why customers want relationships with suppliers? Why customers do not want relationships with suppliers? Customer satisfaction – loyalty – business performance linkage, Satisfaction-profit chain, Relationship management theories.</p> <p>1.2 Introduction to CRM: Introduction , Strategic CRM, Operational CRM, Analytical CRM, Collaborative CRM, Misunderstandings about CRM, Defining CRM, CRM constituencies, Commercial and not-for-profit context of CRM, Models of CRM.</p>	5 + 1
2	<p>Managing the Customer Life Cycle:</p> <p>2.1 Customer Acquisition: What is a new customer? Understanding Customer Value, Sources of Customer Value, Customization, Value from products – services – processes – people – physical evidence – customer communication – channels, Customer Value estimates, Prospecting, KPI of a customer acquisition programme, Making the right offer, Operational CRM tools, Support from CRM Analytics.</p> <p>2.2 Customer Retention & Development: What is customer retention? Managing Customer Retention or Value Retention? Economics of Customer Retention, Which Customers to retain? Strategies of Customer Retention, Positive Customer Retention Strategies, KPI for a Customer Retention programme, Strategies for Customer Development, Strategies for terminating Customer Relationships.</p>	5 + 1

3	<p>CRM Mechanics:</p> <p>3.1 CRM Enablers: Customer related database, Developing a Customer related database, Database technology and hardware platform options, Maintaining the database, Desirable Database Attributes, Data Integration, Data Warehousing, Data Marts , Data Access and Interrogation, Data Mining, Privacy Issues.</p> <p>3.2 Customer Portfolio Management: What is a portfolio? Who is the Customer? Basic disciplines for CPM, Market Segmentation, Sales Forecasting, Activity Based Costing, Lifetime Value Estimation, CPM in the B2B context, Strategically Significant Customers, Seven Core Customer Management Strategies.</p> <p>3.3 Customer Relationship Management and Customer Experience Management: What is meant by Customer Experience? Experiential Marketing Strategies and Tactics, Customer Experience and the role of CRM.</p>	5 + 1
4	<p>Managing Networks for CRM: What is a Network? Business Networks, Network Position, Concept of Focal firm, Business Networks and CRM, SCOPE of CRM, Supplier Networks, Distribution Networks, Management of Networks, Supplier Relationships, Product Development, Supplier Accreditation Programmes, Process Alignment, E Procurement, Partners in Value Creation, Alliance between non-competing firms, Alliance between competing firms, Benchmarking Partners, Customer Advocacy groups, Sponsors, Partners in Value Delivery.</p>	5 + 1
5	<p>Organizational Issues and CRM: Organizational roles and CRM, Strategic goals of CRM, Conventional customer management structures, Network and Virtual organizations, Person-to-person contacts, Key Account Management, Team Selling, Employees and Internal Marketing, Empowerment, Employee Relationship Management.</p>	5 + 1

Learning Resources:		
1	Text Books	Customer Relationship Management – Concepts and Technologies by Francis Buttle, 2 nd Edition, Butterworth Heinemann, Elsevier Relationship Management – Text and Cases, S. Shajahan, TMGH.
2	Reference Books	Handbook of Relationship Marketing by Jagdish Sheth and Atul Parvatiyar, Response Books, Sage Publications. Customer Relationship Management – Perspectives from the Marketplace by Simon Knox, Stan Maklan, Adrian Payne, Joe Peppard and Lynette Ryals, Elsevier. Total Relationship Management by Evert Gummesson, Elsevier. Understanding CRM, Seema Girdhar, Excel Books
3	Supplementary Reading Material	Relationship Marketing edited by Adam Lindgreen, ICFAI books. Customer Relationship Management in Indian Banking Industry by R K Uppal, New Century Publications, 2008, 1 st Edition.
4	Websites	http://www.crm.com/ http://www.crmDemand.oracle.com/
5	Journals	Customer Relationship Management: Emerging Practice, Process, and Discipline by Parvatiyar, Atul; Sheth, Jagdish N., Journal of Economic & Social Research. 2001, Vol. 3 Issue 2, p1. A Strategic Framework for Customer Relationship Management by Payne, Adrian; Frow, Pennie. Journal of Marketing. Oct2005, Vol. 69 Issue 4, p167-176. Customer Relationship Management: from Strategy to Implementation by Payne, Adrian; Frow, Pennie. Journal of Marketing Management. Feb2006, Vol. 22 Issue 1/2, p135-168. Making Customer Relationship Management Work: The Measurement and Profitable Management of Customer Relationships by Ryals, Lynette. Journal of Marketing. Oct2005, Vol. 69 Issue 4, p252-261. The Role of Customer Gratitude in Relationship Marketing by Palmatier, Robert W; Jarvis, Cheryl Burke; Bechhoff, Jennifer R; Kardes, Frank R. Journal of Marketing. Sep2009, Vol. 73 Issue 5, p1-18. Important Elements in Customer Relationship Management by Mandic, Miroslav. International Journal of Management Cases. Sep2011, Vol. 13 Issue 3, p347-351. Types of Customer Relationship Ending Processes by Michalski, Silke. Journal of Marketing Management. Nov2004, Vol. 20 Issue 9/10, p977-999. Building Service Relationships: It's All About Promises by Bitner, Mary Jo. Journal of the Academy of Marketing Science. Fall95, Vol. 23 Issue 4, p246-251 Referral Programs and Customer Value by Schmitt, Philipp; Skiera, Bernd; Van den Bulte, Christophe. Journal of Marketing. Jan2011, Vol. 75 Issue 1, p46-59. Customer Lifetime Value Measurement by Borle, Sharad; Singh, Siddharth S.; Jain, Dipak C. Management Science. Jan2008, Vol. 54 Issue 1, p100-112. Undervalued or Overvalued Customers: Capturing Total Customer Engagement Value. By Kumar, V.; Aksoy, Lerzan; Donkers, Bas; Venkatesan, Rajkumar; Wiesel, Thorsten; Tillmanns, Sebastian. Journal of Service Research. Aug2010, Vol. 13 Issue 3, p297-310.

Semester	III	Specialization	Marketing
Course Code	313MKT	Type	Subject - Elective
Course Title	Marketing and the Law		

Course Objectives:

1	To understand the pervasive impact of the Law and our legal system on marketing activities.
2	To highlight how decisions of marketing executives raise issues which should be carefully evaluated as to their legal consequences before they are implemented?
3	The underline that a failure to appreciate these legal implications can lead to seriously damaging, if not disastrous, results for a firm
4	To address National Laws and court decisions that relate to the four main areas of marketing study, the so-called "four P's" of marketing: product, price, place and promotion.

Syllabus:

Unit Number	Contents	Number of Sessions
1	1.1 Legal Issues Relating to Product Quality and Material Movement: Conditions and warranties, Implied Conditions, Rule of Caveat Emptor [Buyer Beware], Transfer of Title, Nemo Dat Quod Non Habet, Sea Transit: FOB, CIF, Ex. Ship, Rights of Unpaid Seller, Lien, Stoppage in Transit, Right to Resale, Remedies. 1.2 Laws Relating to Services Marketing: Concept of Service, Deficiency in Service, Real Estates, Hospital, Carrier, Courier, Bank, Transport Service	5 + 1
2	Legal Aspects of Unfair Trade Practices and Some Aspects of Advertisement: False and Misleading Representation, Bait Advertising and Bargain Price, Offering Gifts and Prizes and Conducting Promotional Contests, Withholding Information about Final Results of scheme, Hoarding and Destruction of Goods, Spurious Goods	5 + 1
3	3.1 Legal Aspects of Restrictive Trade Practices: Salient features of MRTP Act, Tie-in Sales or Full Line Forcing, Price Fixing, Predatory Pricing, Exclusive Dealing, Territorial Restriction, Refuse to Deal 3.2 Restraint of Trade: Knock-Out Agreement, Trade Combination, Solus or Exclusive Dealing Agreements, Restraints upon Employees	5 + 1
4	4.1 Laws Relating to Common Carrier: Definition of Common Carrier, Distinction between Common Carrier and Pvt. Carrier, Liabilities of Common Carrier 4.2 Legal Aspects of Delivering Goods for Carriage and Warehousing: Rights of Warehouse, Duties and Liabilities of Warehouse	5 + 1
5	Competition Law: Introduction, Meaning, Anti-competitive Agreement, Anti-competitive Agreement: Competition Commission of India (CCI) Competition within India & Effects Doctrine, Anti-competitive Agreement: Horizontal, Anti-competitive Agreement: Fixing Prices - Cartels, Anti-competitive Agreement: Vertical Agreements, Anti-competitive Agreement: Limiting and Controlling Production & Investment.	5 + 1

Learning Resources:		
1	Text Books	Elements of Mercantile Law, N.D. Kapoor, 32nd Edition , Sultan Chand
2	Reference Books	Sale of Goods Act, by Avtar Singh Consumer Protection, by Dr. V.K. Agarwal Competition Law, by D.P. Mittal Legal aspects of Marketing Strategy, by Louis W. Stern / Thomas L. Eovaldi Law of Contract, by Avtar Singh Law of Carriage, by Avtar Singh
3	Supplementary Reading Material	Bare Acts of Sale of Goods Act 1930 (Unit one) Consumer Protection Act, 1986 (Unit two) The Monopolies & Restrictive Trade Practices Act (Unit three) Sale of Good Act1930 &The Carriers Act, 1865(Unit four) The Competition Act,2002 (Unit five) All India Reports (AIR)
4	Websites	http://www.ebc-india.com www.lawmin.nic.in www.mca.gov.in/Ministry/mrtpc.html www.eximguru.com http://www.wto.org http://www.indianembassy.org/policy/WTO http://www.indlii.org http://www.caiindia.org/ www.cci.gov.in
5	Journals	Journal of Consumer Affairs Journal of Consumer Marketing Indian Law Journal Legal news & views(Magazine with latest articles) LawZ (Magazine)

Semester	III	Specialization	Marketing
Course Code	314MKT	Type	Subject - Elective
Course Title	Finance for Marketing Professionals		

Course Objectives:

1	To understand the marketing – finance interdependence
2	To learn about the cost implications in marketing decisions

Syllabus:

Unit Number	Contents	Number of Sessions
1	Marketing Finance Interface: Marketing Finance Interdependence – Cost Revenue Investment Framework in Marketing	5 + 1
2	Marketing Planning : Marketing Organization for Planning - Corporate Planning and Marketing – Budgetary Control in Marketing – Product Planning and Development	5 + 1
3	Marketing Decisions: Cost Analysis in Marketing Decisions – Marginal Costing and Break-even Analysis – Investment and Capital Budgeting Decisions related to Marketing	5 + 1
4	Performance Evaluation in Marketing: Measures for Marketing Performance – Evaluation of Salesmen Performance – Evaluation of Advertisement Expenditure and Advertisement Effectiveness – Evaluation of Distribution – Evaluation of Marketing Research – Marketing Audit	5 + 1
5	Marketing Control : MIS and Control Systems in Marketing - Control on Working Capital – Receivables Management – Profit Control – Product Line Accounting and Variance Analysis – Product Life Cycle Profitability – Customer Life Cycle Profitability – Evaluation of Pricing Strategy	5 + 1

Learning Resources:		
1	Text Books	Marketing Management – A Finance Emphasis by B K Chatterjee, Jaico Books Marketing Finance, Turning Strategies into Shareholder Value by Keith Ward, Elsevier Butterworth Heinemann
2	Reference Books	Financial Management by Prasanna Chandra, TMGH, 7 th Edition
3	Supplementary Reading Material	Market Opportunity Analysis: Text and Cases by Stevens, Sherwood, Dunn and Loudon, Jaico Books.
4	Websites	http://www.marketingdecisions.net/
5	Journals	Marketing Performance Measurement Systems: Does Comprehensiveness Really Improve Performance? by Homburg, Christian; Artz, Martin; Wieseke, Jan., Journal of Marketing. May2012, Vol. 76 Issue 3, p56-77. Marketing Performance Measurement Ability and Firm Performance by O'Sullivan, Don; Abela, Andrew V., Journal of Marketing. Apr2007, Vol. 71 Issue 2, p79-93. The Management Challenge of Marketing Costs by Culliton, James W., Harvard Business Review. Jan1948, Vol. 26 Issue 1, p74-88 Improved Efficiency and Reduced Cost in Marketing by Parker, Donald D., Journal of Marketing. Apr1962, Vol. 26 Issue 2, p15-21. The marketing accounting interface -- lessons and limitations by Sidhu, Baljit K.; Roberts, John H., Journal of Marketing Management. Sep2008, Vol. 24 Issue 7/8, p669-686. The Marketing Budgeting Process: Marketing Management Implications by Piercy, Nigel F., Journal of Marketing. Oct87, Vol. 51 Issue 4, p45-59. New Approaches to Analyzing Marketing Profitability by Mossman, Frank H.; Fischer, Paul M.; Crissy, W. J. E., Journal of Marketing. Apr1974, Vol. 38 Issue 2, p43-48. Price-Cost Planning by Fogg, C. Davis; Kohnken, Kent H., Journal of Marketing. Apr1978, Vol. 42 Issue 2, p97-106. Determining marketing costs and returns in alternative marketing channels by Hardesty, Sherman D.; Leff, Penny., Renewable Agriculture & Food Systems, Mar2010, Vol. 25 Issue 1, p24-34. Marketing Audits and Auditing: Diagnosis through Intervention by Brownlie, Douglas., Journal of Marketing Management. Jan-Apr1996, Vol. 12 Issue 1-3, p99-112. The Marketing Audit and Organizational Performance: An Empirical Profiling by Taghian, Mehdi; Shaw, Robin N., Journal of Marketing Theory & Practice. Fall2008, Vol. 16 Issue 4, p341-349. Improving Marketing Accountability through Better Management of the Market Research Process by Shaw, Robert; White, Carolyn., Journal of Marketing Management. Nov99, Vol. 15 Issue 8, p857-880.

Semester	III	Specialization	Marketing
Course Code	315MKT	Type	Subject - Elective
Course Title	Marketing of Financial Services – I		

Course Objectives:

1	Familiarizing the students with the various financial services and products in the liberalized Indian economy.
2	To provide an in-depth perspective of the equity and bond markets.
3	Equipping the students with the practices and processes in the Mutual Fund and Insurance Industry.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Financial Market Fundamentals:</p> <p>Equity Markets: Capital Markets, Role in the Economy, Brief History of BSE and NSE. Trade lifecycle of a financial instrument, Market Participants in the Equity markets with perspectives on 'Buy' side and 'Sell' side, Key terminologies related to the Equity markets.</p> <p>Bond Markets: Introduction to bond markets, how bond markets operate? Key terminologies related to the bond markets. Regulatory aspects of the Bond Markets, Key players in the Bond Markets (such as FII's, Hedge Funds etc.)</p> <p>Debt Instruments: Debt instruments and their classification based on type of issuer, and basis characteristics. Money Market Instruments (such as Certificate of Deposit, Re-purchase "Agreements etc.),</p>	5 + 1
2	<p>Mutual Funds:</p> <p>Mutual Funds and their importance, Various entities of a Mutual Fund and their respective roles - Basic understanding of NAV and calculation of a Fund - NAV, Types of Loads and Commissions charged on Mutual Funds and their significance</p> <p>Types of Mutual Funds in India, classified on the basis of Structure, Investment Objective, and Investment Plan, Relative risks associated with various Mutual Funds in India</p> <p>Basic understanding of ETFs and their key features. Differences between a Mutual Fund and an ETF</p> <p>Basic understanding of a 'Hedge Fund' and its key features, Process of Fund Selection and various related measurement parameters, Various expenses incurred by a Fund</p> <p>Guidelines for Investment Advisors while selling Mutual Funds to the clients.</p>	5 + 1
3	<p>Insurance:</p> <p>Basics of Insurance: Basic understanding of insurance products, types of insurance policies – Role of IRDA, Insurance industry in India.</p> <p>General Insurance: Types of liabilities covered, extent of insurance value, and conditions</p> <p>Life Insurance: Basic concept of Life Insurance, its beneficiaries and its types, Concept of Term Insurance and its various types, Traditional Life Insurance and its difference from Term Insurance, Whole Life Policy and Endowment Policy and the differences between them. ULIP and its comparison with conventional plans and Mutual Funds.</p> <p>Marketing Channels in Insurance Markets: Various channel members in the Industry such as Insurance Agents, Distributors, etc.</p> <p>Basic Understanding: Property and casualty/liability insurance, Commercial Insurance, Health Insurance.</p>	5 + 1

4	<p>Other Financial Services: Leasing / Hire Purchase: Definition, meaning, types, process, advantages, limitations, financial implications Housing Finance: Major institutions involved, types, rate of interest, advantages, scenario in India Credit Cards: Meaning, types, growth, advantages and disadvantages, growth in India. Credit Rating Services: Origin, definition, advantages, credit rating agencies - global and Indian, symbols, CRISIL, ICRA, equity ratings, CIBIL, scope in India. Other Services: Factoring, forfeiting, bill discounting, consumer finance and venture capital</p>	5 + 1
5	<p>Marketing of Financial Services: Importance of Financial Planning: identification of investment needs for retail investors, studying investment behavior - Household Vs. Institutional Investors Alternate Investment Products: Introduction to Alternate Investments and their various products and services, Portfolio Management Services and their features, Tax regulations from an Investment Advisor point of view Career opportunities in Marketing of Financial Services</p>	5 + 1

Learning Resources:		
1	Text Books	Financial Services & Markets by Dr. Punithavathy Pandian, Vikas Publication, 2012 Edition
2	Reference Books	Financial Services by Nalini Prava Tripathy, Prentice Hall of India Private Limited, 2008 Edition
3	Supplementary Reading Material	Financial Services by M Y Khan, Tata McGraw-Hill, 5 th Edition
4	Websites	http://www.irda.gov.in http://www.financeindia.org http://www.sebi.gov.in
5	Journals	Indian Journal of Finance Indian Journal of Marketing Prabandhan – Indian Journal of Management

Semester	III	Specialization	Marketing
Course Code	316MKT	Type	Subject - Elective
Course Title	Tourism Marketing		

Course Objectives:

1	To familiarize the students with the basics of tourism marketing.
2	To teach the students about formulating marketing plans for tourism and other related hospitality organizations.
3	To acquaint the students with alternative promotional approaches to tourism marketing.

Syllabus:

Unit Number	Contents	Number of Sessions
1	1.1 Introduction to Tourism: What is Tourism? Definitions and Concepts, tourist destination, Future of Tourism. General Tourism Trends. Types of Tourists, Visitor, Traveler, and Excursionist–Definition and differentiation. Tourism, recreation and leisure, their inter–relationships. 1.2 Introduction to Tourism Industry: Nature, Characteristics and Components of Tourism Industry. Why it is different from other types of consumer product? Elements and characteristics of tourism product. Tourism product production system, Tourism Product Life Cycle, typology of tourism products.	6 + 1
2	Tourism Marketing: Service characteristics of tourism. Unique features of tourist demand and tourism product, Tourism marketing mix. Marketing of Tourism.	3 + 1
3	Types and Forms of Tourism: Inter–regional and intra–regional tourism, inbound and outbound tourism, domestic, international tourism. Forms of Tourism: religious, historical, social, adventure, health, business, conferences, conventions, incentives, sports and adventure, Medical Tourism, Senior tourism, special interest tourism like culture or nature oriented, ethnic or ‘roots’ tourism and VFR.	5 + 1
4	Analysis and Selection of Market: Measuring and forecasting tourism demand; Managing capacity and demand. Market segmentation and positioning (STP), Customer satisfaction and related strategies in internal and external marketing; Interactive and relationship marketing.	4 + 1
5	Planning Marketing Programs: Product and product strategies; Product line, Product mix Branding and packaging. Pricing considerations. Promotional strategies. Distribution channels and strategies. Online Channels, Web Portals Services: Marketing of Airlines, Hotel, Resort, Travel Agencies and other tourism related services-Challenges and strategies.	7 + 1

Learning Resources:		
1	Text Books	Successful Tourism Management by Seth, P. N., Sterling Publishers Pvt. Ltd. 2006 Tourism Marketing, by Sinha P.C., Anand Publication, 1998
2	Reference Books	Marketing Management & Hospitality and Tourism Marketing by Kotler, Philip, Pearson Education. Hospitality Marketing by Vearne, Morrisson Alison
3	Supplementary Reading Material	Tourism Policies of Central Government & Different State Government Promotional Policies of Airlines, Hospitality Industries.
4	Websites	http://tourism.gov.in www.incredibleindia.org
5	Journals	Sustainable Tourism Marketing at a World Heritage Site, by Gilmore, Audrey; Carson, David; Ascenção, Mário., Journal of Strategic Marketing. May2007, Vol. 15 Issue 2/3, p253-264. Place-product or Place Narrative(s)? Perspectives in the Marketing of Tourism Destinations, by Lichrou, Maria; O'Malley, Lisa; Patterson, Maurice., Journal of Strategic Marketing. Feb2008, Vol. 16 Issue 1, p27-39. Proposing a Sustainable Marketing Framework for Heritage Tourism, by Chhabra, Deepak., Journal of Sustainable Tourism. 2009, Vol. 17 Issue 3, p303-320. Critical Success Factors in Destination Marketing, by Baker, Michael J.; Cameron, Emma., Tourism & Hospitality Research. Feb2008, Vol. 8 Issue 2, p79-97. The Marketing of Tourism, by Meidan, Arthur., Service Industries Journal. Nov84, Vol. 4 Issue 3, p166-186. Marketing Culture and Customer Retention in the Tourism Industry, by Appiah-Adu, Kwaku; Fyall, Alan; Singh, Satyendra., Service Industries Journal. Apr2000, Vol. 20 Issue 2, p95-113 Managing Destination Brands: Establishing a Theoretical Foundation, by Hankinson, Graham., Journal of Marketing Management. Feb2009, Vol. 25 Issue 1/2, p97-115. Destination Branding: Tracking Brand India, by Khanna, Monica., Synergy (0973-8819). Jan2011, Vol. 9 Issue 1, p40-49. Marketing UK Towns and Cities as Shopping Destinations, by Warnaby, Gary; Bennison, David; Davies, Barry J.; Hughes, Howard., Journal of Marketing Management. Dec2002, Vol. 18 Issue 9/10. Destination Marketing: Future issues — Strategic challenges, by Fyall, Alan; Leask, Anna., Tourism & Hospitality Research. Nov2006, Vol. 7 Issue 1, p50-63. Case Study: Uttarakhand as a Spiritual Tourist Destination: An Emerging Research, by Himadri, Phukan., Advances in Management. May2012, Vol. 5 Issue 5, p42-48. From Destination Brand to Location Brand, by Kerr, Greg., Journal of Brand Management. Apr/Jun2006, Vol. 13 Issue 4/5, p276-283.

Semester	III	Specialization	Marketing
Course Code	317MKT	Type	Subject - Elective
Course Title	Agricultural Marketing		

Course Objectives:

1	The Agricultural sector, offers immense opportunities for the employment. This sector requires managerial talent for both input and produce side. The course will prepare the students to be employable in agricultural marketing
2	Understand the functions performed by agricultural marketing system
3	Develop strategies to manage the marketing of agriculture organizations.

Syllabus:

Unit Number	Contents	Number of Sessions
1	1.1 Introduction to Agricultural Marketing: Definition of Market and agricultural marketing, Understanding Agricultural Markets, Nature & scope, Objectives of Agriculture Marketing, Organizations and functions of agricultural marketing in India. Difference between consumer, industrial and agricultural markets.	5 + 1
2	2.1 Market Information: Role, importance and concepts of market intelligence, critical review of market intelligence and news service, role of IT and telecommunication, on line market information service, electronic auctions, commodity information system, e-chaupal model, dissemination of market intelligence through various media, market information schemes, cyber trading/e-commerce, market information Service (AGMARKNET), Directorate of Marketing and Inspection (DMI).	5 + 1
3	3.1 Marketing of Agricultural Inputs: Meaning of Agricultural Inputs, Agriculture inputs with special reference to fertilizers, seeds, pesticides and other agricultural inputs (Farm Machinery, irrigation system equipment)	5 + 1
4	4.1 Agri-produce Marketing: Food grains, Vegetables, Oil seeds, Fruits, Flowers and ornamental plants, milk and milk products, other animal products, Grade determination techniques; AGMARK, BIS Grades and standards prevailing in other countries. 4.2 Quality Standards of Agricultural Commodities: Domestic and Export Markets; ISO 14000; ISO 9000; Quality Assurance in the Domestic / Export Markets for Agricultural Products. 4.3 Institutional Setup: Role of APMC, APEDA, WTO Agri produce marketing	5 + 1
5	5.1 Pricing of Agricultural Commodities Pricing Decisions: Agricultural price terminology, administered prices including support prices, Factors influencing pricing decisions. Determination of agricultural prices and marketing margins, Role of agricultural price commission Various pricing strategies. 5.2 Pricing Mechanisms: Role of Institutions in determination of prices of agricultural commodities, Commodity exchanges, Concept of Value and Value Addition; Pricing in Competitive Environment.	5 + 1

Learning Resources:		
1	Text Books	Marketing of Agricultural Products by Richard Louis Kohls, Joseph N. Uhl, Person Publication, 9 th Edition. Agriculture Marketing in India by S.S.Acharya & N.L. Agarwal , Oxford & IBH Publishing Co. Pvt. Ltd New Delhi, 4 th Edition
2	Reference Books	New Perspective in Rural & Agricultural Marketing by Ramkishen Y., Jaico Publishing House , 2 nd Edition Introduction to Agribusiness Marketing by George Seperich, Michael Woolverton, James Beierlein, Pearson Education.
3	Supplementary Reading Material	Rural Agriculture & Marketing by S.B. Verma, S.K. Jiloka & Mandal , Deep & Deep Publication Pvt. Ltd. Agricultural Communications Changes & Challenges by Kristina Boone, Terry Meisenbach and Mark Tucker, Surjeet Publication
4	Websites	http://agmarknet.nic.in/ www.hpsamb.nic.in/ www.rsamb.rajasthan.gov.in/ www.agritech.tnau.ac.in www.delagrmarket.nic.in/ www.ams.usda.gov/
5	Journals	Journal of International Food & Agribusiness Marketing Indian Journal of Agricultural Marketing Agricultural Marketing American Journal of Agricultural Economics Agricultural Economics & Marketing Journal Agricultural Economics Research Review Journal of Farm Economics Journal of Marketing

Semester	III	Specialization	Marketing
Course Code	318MKT	Type	Subject - Elective
Course Title	Business to Business Marketing		

Course Objectives:

1	To familiarize students with the terms, concepts, and nature of Business-to-Business Marketing.
2	To expose the students to the industrial marketing functions of firms.
3	The course introduces to the participants the specifics of marketing mix for Business-to-Business Marketing.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Overview of Business-to-Business Marketing</p> <p>Introduction to Business-to-Business Marketing: Business, Organizational & Government Markets, Organizational Buying Behavior, Concept of the Business-to-Business (B2B) Marketing, Comparison of Business-to-Business & Business-to-Consumer Marketing.</p> <p>Buying Situations, Buy grid Framework, Role of Buying Centre ,</p> <p>Models of B2B Marketing – Webster & Wind Model, Sheth Model, Impact of Macro/Micro Environmental factors on decision making</p>	5 + 1
2	<p>Segmentation, Targeting & Positioning for B2B Markets:</p> <p>Market Segmentation Bases: Macro Variables - Industry Characteristics, Company Size, Customer Location, End User Markets, product Applications. Micro Variables: Customer Interaction needs, Organizational Capabilities, Purchasing Policies, Purchasing Criteria, and Personal Characteristics.</p> <p>Target Markets: Concentrated Marketing, Differentiated Marketing, Undifferentiated Marketing. Criteria for choosing a target market.</p> <p>Positioning</p>	5+ 1
3	<p>Product Pricing Strategy for B2B Markets:</p> <p>Industrial Products: Definition of an Industrial Product, Industrial Product Lifecycle & Strategies across the PLC, Product strategies for New Products and Existing Products, Importance of After Sales Service. Innovation, Competitiveness & Technology. Marketing of – Projects, Industrial Services, High technology products.</p> <p>Pricing: Factors influencing Pricing Decisions, Pricing Strategies – Competitive bidding, Pricing New Products, Pricing Policies, Commercial Terms and Conditions, Contracts, Hiring & Leasing, Negotiation, Bargaining, Persuasion & Conviction. Methods used to Influence Industrial Customers, Special Dealing between Buyer and Sellers, Reciprocity, Ethical Issues. International Market based Pricing</p>	8 + 1

4	<p>Personal Selling & Promotions for B2B Markets:</p> <p>Personal Selling: Role & Characteristics of Personal Selling, Development & Management of Sales Force, Key Account Management - ABC Analysis of Industrial Customers.</p> <p>Promotions: Developing Industrial Communication Programme, Trade Shows, Exhibitions, Catalogues, Samples, Public Relations, Advertising,</p>	4 + 1
5	<p>Industrial Distribution Channels: Distinctive Nature of Industrial Distribution Channels, Types of Industrial Middlemen, Channel Flow Design, Formulating Distribution Strategies and Cost Benefit Analysis.</p>	3 + 1

Learning Resources:		
1	Text Books	Industrial Marketing by Havaldar
2	Reference Books	Industrial Marketing by Hill, Alexander & Cross, Irwin Industrial Marketing by Mukerjee, Excel Book
3	Supplementary Reading Material	Marketing White Book (Latest edition)
4	Websites	http://www.commerce.nic.in/
5	Journals	<p>Industrial Organization and Customer Relationship Management: The Impact on Customer Service Orientation in B-to-B Markets by Lancioni, Richard; Smith, Michael; Stein, Alex., Journal of Management & Public Policy. Jul-Dec2009, Vol. 1 Issue 1, p57-88.</p> <p>My years with B2B Marketing in India: Reflections and Learnings from A Journey of 40 Years by Sarin, Sharad., Journal of Business & Industrial Marketing. 2012, Vol. 27 Issue 3, p160-168</p> <p>Approaching Global Industrial Marketing from a Managerial Cognition Perspective: A Theoretical Framework by Madhavaram, Sreedhar; Badrinarayanan, Vishag; Granot, Elad., Journal of Business & Industrial Marketing. 2011, Vol. 26 Issue 7, p532-541</p> <p>The Marketing Mix Revisited: Towards the 21st Century Marketing by Constantinides, E., Journal of Marketing Management. Apr2006, Vol. 22 Issue 3/4, p407-438</p> <p>Marketing-Industrial Design Integration in New Product Development: The Case of China by Zhang, Dan; Hu, Peng; Kotabe, Masaaki., Journal of Product Innovation Management. May2011, Vol. 28 Issue 3, p360-373</p>

University of Pune

**MBA SYLLABUS: SEMESTER III
FINANCIAL MANAGEMENT - SPECIALIZATION**

Semester	III	Specialization	Finance
Course Code	305 FIN	Type	Specialization - Core
Course Title	Financial Regulatory Framework		

Course Objectives:

1	To provide an overview of the various regulators operating in the Indian Financial System , their roles, functions and contribution to managing the economy.
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Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Regulatory Framework - Need and Importance: Need and Importance of regulatory framework in finance field – Goals of Regulation - Price stability - Protecting the small investor - Preventing market misconduct. Effect of good regulation - better market outcomes. Structure of regulatory framework in India. Financial Regulation and Financial Inclusion Role of financial Regulators in promoting economic growth. Global Financial Crisis – Response of the Indian Regulators.</p> <p>Quasi-regulatory institutions: National Bank for Agriculture and Rural Development (NABARD), Small Industries Development Bank of India (SIDBI), National Housing Bank (NHB)</p> <p>Conflict between regulators. Problems of coordination, Managing Systemic Risks.</p>	7+2
2	<p>RBI : Functions of RBI, Credit control measures, qualitative credit control, and quantitative credit control, Regulatory measures taken by the RBI to facilitate financial inclusion. Supervisory framework for NBFCs</p> <p>SEBI: Introduction – Functions of SEBI, SEBI Guideline for issue of securities, (e- IPO) , bonus share, book building, OTCEI.</p> <p>IRDA: IRDA Act, Salient features of the IRDA Act, 1999. IRDA (Protection of Policy holders Interests) Regulations 2002. Duties, Powers & Functions of Authority.</p> <p>Pension Funds Regulatory and Development Authority: Role and Functions</p> <p>Board for payment and settlement systems: Role and Functions.</p> <p>Board of Financial supervision: Role and Functions</p> <p>Competition Commission of India: Role and Functions.</p>	7+2
3	<p>Companies Act 1956 : Private and public company, Prospectus, MOA, AOA, Share Capital, borrowing powers, accounts and audit, directors , winding up.</p>	7+2
4	<p>Regulatory Framework for International Funds: Regulatory framework for rising fund through GDRs and ADRs – External Commercial Borrowing</p> <p>Foreign direct investment Regulation: FDI, FII, FEMA etc. Foreign direct investment, Foreign Institutional Investments, provision of FEMA regarding acquiring property outside India. FC(R) Act 1952 - FMC regulation - Regulator of commodity derivative markets - commodity derivative brokers.</p>	7+2
5	<p>Legal Framework for Various Institutional Forms: Societies Registration Act, 1860 , Indian Trusts Act, 1882 , Not-for-profit Companies Registered under Section 25 of the Companies Act, 1956, Non-Banking Finance Companies (NBFCs) , Nidhi Companies , Banking Regulation Act as applicable to Cooperatives, State Acts on Mutually Aided Cooperative Societies, Institutional Issues with MFIs in India. [Focus should be <u>only on</u> formation, accounts & audit , Investment of funds, Acceptance of Foreign Contribution and Taxation]</p>	7+2

Learning Resources:

1	Text Books	Indian Financial System and Markets by Siddhartha Sankar Saha (Tata McGraw Hill) Financial Services by Shashi K. Gupta and Nisha Agarwal (Kalyani Publications) Merchant Banking and Financial Services by Guruswamy, Third Edition (Tata McGraw Hill) Company Law by N.D. Kapoor
2	Supplementary Reading Material	Financial Institutions and Markets by Madura
3	Websites	RBI IRDA SEBI
4	Journals	

Semester	III	Specialization	Finance
Course Code	306 FIN	Type	Specialization - Core
Course Title	Merchant Banking & Financial Services		

Course Objectives:

1	To understand the scope, evolution and role of merchant banking in the context of Indian financial system
2	To get acquainted with the procedure of public issue management
3	To know in detail the services offered by the merchant Bankers

Syllabus:

Unit Number	Contents	Number of Sessions
1	Meaning Scope, Participants And Instruments: Definition of Merchant Banking and its scope, Procedure for registration of Merchant Banking, Operational guide lines by SEBI for merchant bankers, code of conduct for Merchant Bankers, Indian Financial System and its participants. BSE, NSE and Over The counter Exchange of India - History, Role, functions, trading operations and settlement of transactions, regulations of stock exchanges. Money Market – Structure of Money Market, Money Market Instrument, Indian Money Market, Features and Defects, Players in the Indian Money Market, The reforms in Indian Money Market. Capital Market Instruments - Preference share, equity shares, Non-voting shares, Convertible Cumulative Debentures (CCD), preference shares, Fixed Deposits, Warrants, Debentures and Bonds, Global Depository receipts, American Depository receipts, Global Debt Instruments.	7+2
2	Public Issue Management And Regulations: Public issue management - Functions, Mechanism, role of issue manager, activities involved in public issue. various methods of Marketing of new issues - Pure prospectus method, Offer for sale method, Private placement method, Initial public offer method, Rights issue method, Bonus issue method, Book building process, stock option method, bought out method - meaning, feature, advantages, limitations, practical example. Prospectus - prospectus for public offer - its importance, difference between regular prospectus and abridged prospectus, letter of offer, disclosures in prospectus, abridged prospectus and letter of offer, types of prospectus - Red Herring prospectus, information memorandum, shelf prospectus. Underwriting- Definition, types - Firm, Sub underwriting, joint underwriting, syndicate underwriting, advantages, variants of underwriting - Offer for sale, bought out deals, private placements. Post issue activities - meaning, activities involved like allotment, price fixation, dispatch of certificates etc. Pricing models - Net Asset value, Profit Earning Capacity Value, Average Market Price.	7+2

3	Services Offered By Merchant Bankers: Mergers and Acquisition Services - merger, acquisition, takeover, hostile merger, step wise procedure for amalgamation, strategies adopted to avoid hostile merger - Divestiture, Crown jewels, Poison pill, greenmail, white knight, golden Parachutes, street sweep, bear hug, brand power, poison put, pac man defense, white squire. Types of mergers - horizontal, vertical, diagonal, forward, reverse, forward triangular, reverse triangular, conglomerate, congeneric, negotiated, arranged, unopposed, defended, competitive, tender offer. Valuation methods - net assets, discounted cash flow method, methods of financing - ordinary share, debt and preference shares, deferred payment, tender offer. Buy back of Shares, Delisting of Shares, Issue of Debentures - SEBI Guidelines. Portfolio Management Services - meaning, scope, registration of portfolio manager, duties, responsibilities, rights, contents of agreement between client and portfolio manager, reports to be furnished, code of conduct (regulation 13 of SEBI Regulation on Portfolio Managers). Credit Syndication services - meaning, institutions offering syndicate loans, types, procedure, project appraisal, documentation and security, sanction of a loan	7+2
4	Financial Services - Part I: Meaning scope and evolution of financial services. Introduction of various financial services - Leasing, Hire purchase, Factoring, forfaiting, bill discounting, consumer finance, housing finance, insurance, credit cards, credit ratings, mutual funds and venture capital. Leasing - definition, meaning, types, process, advantages, limitations, financial implications. Hire purchase - meaning, scope, difference between hire purchase and leasing, calculation of interest, methods of interest calculation. Factoring, forfaiting, bills discounting - meaning, definitions, scope, advantages and limitations. Insurance - Meaning, overview, types - life and general - advantages, scope of growth in India.	7+2
5	Financial Services - Part II: Consumer Finance - Meaning, types, documents and security, players in the market - banks, NBFC, Cooperative banks, role of consumer finance in growth of economy. Housing Finance - Major institutions involved, types, rate of interest, advantages, scenario in India. Credit Ratings - origin, definition, advantages, credit rating agencies - global and Indian, symbols, CRISIL, ICRA, equity ratings, scope in India CIBIL. Mutual funds - Definition, products, SEBI requirements for Asset Management Company (AMC), Association of Mutual Funds Industry (AMFI), evaluating mutual fund, growth in India, Venture capital - definition, types, stages, exit mechanism, advantages, limitations, growth in India.	7+2

Learning Resources:

1	Text Books	Indian Financial Service - Mr. M. Y. Khan, McGraw Hill Publications, 2010, 5 th edition Merchant Banking and Financial Services - Mr. S. Guruswamy, Tata McGraw-Hill Financial Services, Markets and Regulations – Anil Agashe, Himalaya Publishing House Financial Institutions and Markets by Madura
2	Websites	RBI, SEBI, CRISIL, ICRA, MONEYCONTROL, ICICI Direct, Capital Market, Money hike.
3	Newspaper and Magazines	Economic Times, Business Standard, Hindu, Business Line, Financial Express, Money hike, Business India, Business Today, Business World, Capital Market.

Semester	III	Specialization	Finance
Course Code	307 FIN	Type	Subject - Elective
Course Title	Income Tax Part I		

Course Objectives:	
1	To understand the basic concepts of income tax.
2	To be able to practice tax planning and management for individuals and HUF.
3	To calculate Gross Total Income and tax liability in a limited scope with two sources of income i.e. salary and house property

Syllabus:

Unit Number	Contents	Number of Sessions
1	Income Tax Act 1961- Meaning Scope & Definitions: Income Tax Act 1961, Definitions - Assesse, Assessment Year, Previous year, person, income, gross total income, Total income and tax liability, Difference between direct tax and indirect tax, Difference between exemption and deduction, capital and revenue, rebate and deduction, Concept of Residential status and incidence of tax incidence, Concept of Agricultural Income.	5+1
2	Income From Salary: Definition and meaning of salary, Allowances- fully exempt, fully taxable, partially taxable, Perquisites - meaning, valuation and taxability, Concept and taxability of Gratuity, Provident Fund, Calculation of income from salary	5+1
	Income From House Property: Chargeability, exemption, Computation of let out property, Computation of self-occupied property, Income From Capital Gains: Definition of Capital Asset, Transfer, Capital Gain, FMV, Indexation. Types of Capital Gain. Exemptions available for Individuals and HUF's Income From Other Sources: Concept of Residual Income, TDS Provisions, Computation	5+1
4	Set Off, Carry Forward, Deductions: Set off and carry forward of losses, Deductions applicable to Individual and HUF	5 + 1
5	Calculation Of Gross Total Income, Tax And Tax Liability: Calculation of Gross Total Income considering salary, house property and other income. Cases on calculation of net taxabale income, application of tax rates and calculation tax liability, Tax Planning for Income, Tax Credits, Advance Tax and Self-Assessment Tax	5 + 1

Note:	
1	The problems will be asked only on income from salary , house property and GTI consisting of these two sources only
2	Assessment year will be assessment year applicable for running financial year. For example if exams are in November 2014, then A.Y.2015-16 would be applicable.

Learning Resources:		
1	Text Books	Direct Taxes – Ravi Kishore Direct Taxes – J.P. Jakhotiya Direct Taxes – Ahuja Direct and Indirect tax Planning & Management – Bangar Yogendra, Bangar Vandana
2	Reference Books	Students guide to Income Tax - Dr. Vinod and KapilSinghania Students guide to Income Tax – Dr. T.N. Manoharan Students guide to Income Tax – Gupta & Ahuja
3	Supplementary Reading Material	Direct Taxes - Law and Practice - Dr. Vinod and KapilSinghania
4	Websites	www.incometaxindia.gov.in , www.tin.gov.in , www.aaykarsamparkkendra.gov.in
5	Journals	The Chartered Accountant Taxman Journal, AIR, Supreme Court hearings

Semester	III	Specialization	Finance
Course Code	308FIN	Type	Subject - Elective
Course Title	Project Finance		

Course Objectives:	
1	To understand the concept of Project Finance
2	To know various sources of finance
3	To understand the risks associated with mega projects

Syllabus:

Unit Number	Contents	Number of Sessions
1	Basics of Project Finance: Characteristic and major elements of Projects, Project Planning and Control, Financial Modeling and Evaluation – Macroeconomic assumptions – project costs and funding – operating revenues and costs – accounting and taxation issues	5+1
2	Sources of Finance: Sources of finance for projects - Financial Instruments - Performance indicators for projects - project cash flows - Appraisal and validity of financing projects using discounting techniques and Fischer effect - Financial Engineering	5+1
3	Risk Management: Risk Management for Projects - Risk Identification – Commercial Risks – Completion Risks – Environmental Risks – Operating Risks – Revenue Risks – Input Supply Risks – Macro Economic Risks- Political Risks - Risk Analysis and Transfer – understanding risk measurement techniques like simulation technique, sensitivity, scenario, break even decision tree - Guarantees and Insurance	5+1
4	Contract Management: Contract Management - Tender preparation and initial evaluation - Preparation of promoter's bids - project conditions - Incentives and Penalties – Default and Termination - Legal Aspects and agreements.	5+1
5	Cases: Case Study of a large project covering all aspects stated	5+1

Learning Resources:		
1	Text Books	Project Management – Prasanna Chandra Principles of Project Finance - Yescombe, E. R. (2002), Academic Press, California. Advanced Project Management – Harrison F.L. Project Financing: Asset-Based Financial Engineering (Wiley Finance) by John D. Finnerty Earned Value Management Using Microsoft® Office Project: A Guide for Managing Any Size Project Effectively w/CD by Dayal
2	Reference Books	Project financing (7 ed.) - Nevitt, P.K. & Fabozzi, F. J. (2000), London, UK: Euromoney Books Investment project design - A guide to financial and economic analysis with constraints, Kurowski, L. & Sussman, D. (2011), New Jersey: John Wiley & Sons. Project finance for construction and infrastructure: Principles and case studies - Pretorius, F., Lejot, P., McInnis, A., Arner, D. & Hsu, B. F.-C. (2008), Oxford: Blackwell Publishing
3	Supplementary Reading Material	Public Private Partnership in Infrastructure, R N Joshi, Visionbooks Project Finance, Concepts and Applications, Padmalatha Suresh, ICFAI
4	Websites	www.projectfinancemagazine.com
5	Journals	Journal of Structured finance

Semester	III	Specialization	Finance
Course Code	309FIN	Type	Subject - Elective
Course Title	Strategic Cost Management		

Course Objectives:

1	To acquaint students with various techniques used for Strategic Cost Management
2	To develop an understanding of the adoption of various techniques of Strategic Cost Management for obtaining sustainable competitive advantage
3	To make the student familiar with the integration of various techniques in decision making.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Meaning And Scope: Strategic Cost Management – meaning and importance – difference between cost reduction and cost management – objectives of strategic cost management. Strategic positioning and SCM.	5 + 1
2	Techniques Of SCM: Various techniques of strategic cost management – life cycle costing – kaizen costing – target costing.	5 + 1
3	Activity Based Costing: Activity Based Costing – Activity Based Management – utility and importance – role of activity based costing and activity based management in decision making.	5 + 1
4	Value Based Organization: Value based management - Value chain costing – meaning and application – throughput costing and theory of constraints – Balanced Scorecard and its application in cost management	5 + 1
5	Learning Curve Theory: Concept, phases and application Lean Management: Lean cost management – utility and application	5 + 1

Note:

1	Case study approach is recommended.
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Learning Resources:

1	Text Books	Cost Management- Ravi Kishore
2	Reference Books	Strategic Management Accounting: Theory and Practice by Kumar Dynamics of Profit-Focused Accounting: Attaining Sustained Value and Bottom-Line Improvement by Northrup Cost and Management Accounting: Colin Drurry Cost Accounting – A Managerial Emphasis: Horngreen, Datar and Foster
3	Supplementary Reading Material	Cost Management – A strategic Emphasis - Blocher, Chen, Cokins, Lin
4	Websites	Institute of Cost Accountants of India
5	Journals	The Management Accountant - Journal of ICAI (formerly ICWAI)

Semester	III	Specialization	Finance
Course Code	310 FIN	Type	Subject - Elective
Course Title	Corporate Financial Reporting		

Course Objectives:	
1	To acquaint the students with the framework of financial reporting and emerging trends.
2	To make students familiar with the analytical tools used for financial analysis.
3	To understand the accounting aspects

Syllabus:

Unit Number	Contents	Number of Sessions
1	Financial Reporting: Financial Reporting – meaning and importance - concept of capital and capital maintenance.	5 + 1
2	Financial Statements As Per As Per Indian Companies Act: Various forms of Corporate Financial Reporting – Understanding of Financial Statements as per Indian Companies Act – Cash Flow Statements- director's report – management outlook and analysis-notes to accounts.	5 + 1
3	Regulatory Framework: Regulatory framework of Financial Reporting – Overview of Accounting Standards – Indian and International – GAAP – Introduction to IFRS	5 + 1
4	Corporate Governance: Corporate Governance and Financial Reporting – SEBI norms regarding interim reporting	5 + 1
5	Preparation and presentation of financial statements for single companies: Income statement, Balance sheet, Statement of changes in equity, Reporting comprehensive income, Segmental reporting, Accounting policies, Fair view treatment, Cash flow statements, Preparation of published accounts complying with accounting standards.	5 + 1

Note:	
1	Case study approach is recommended for better understanding of financial reporting
2.	Problems on preparation of financial statements.

Learning Resources:		
1	Text Books	Advanced Accountancy – ShuklaGrewal – S. Sultan Chand & Co. Financial Accounting: Reporting And Analysis by Stice Financial Reporting and Management Accounting by Bruns
2	Reference Books	Financial Management: Prasanna Chandra, Indian Accounting Standards& GAAP – DolphyD'Souza – Snow White Publications
3	Supplementary Reading Material	Financial Management: Khan and Jain Corporation Finance: S.C.Kuchhal
4	Websites	The Institute of Chartered Accountants Of India Annual report of any public ltd. Company from various industries like automobile, FMCG, retails etc.
5	Journals	Indian Journal of Finance and Accounting

Semester	III	Specialization	Finance
Course Code	311FIN	Type	Subject – Elective
Course Title	International Financial Reporting Standards		

Course Objectives:

1	To get acquainted with the concept of IFRS
2	To have knowledge of convergence of Indian Accounting Standards with IFRS
3	To know the comparative analysis of Indian GAAP and IFRS

Syllabus:

Unit Number	Contents	Number of Sessions
1	Basics: Concept of Accounting Standards, GAAP for UK, USA and India. International Accounting Standards, Financial Statements - Role of Financial Reporting in Financials , Emergence of International Financial Reporting Standards,	6 + 1
2	IFRS Composition: Major areas in IFRS and their role in Financial Reporting – Presentations, Cash Flows, Inventory, Foreign Currency, Joint Ventures, Insurance Contracts, Financial Instruments, Compatibility with IAS	5 + 1
3	Regulatory Framework and Agencies involved: Formation and role in IFRS - Standing Interpretations Committee, International Financial Reporting Interpretations Committee, International Accounting Standards Committee, International Standards Accounting Board, Standards Advisory Council, Institute of Chartered Accountants of India, Institute of Cost Accounts of India, Institute of Company Secretaries of India	6 + 1
4	Joining IFRS – Indian Perspective – A path to convergence, various deadlines and required amendments in Indian Accounting Standards, Problems faced, different deadline dates for different sectors to join IFRS, Uniformity in Financial Reporting – Benefits and detriments to Indian and Foreign Companies	5 + 1
5	Comparative Analysis between Indian GAAP& IFRS	3 + 1

Learning Resources:

1	Text Books	Understanding IFRS Fundamentals: International Financial Reporting Standards – Dr. T.P. Ghost, Nandkumar Ankarath, Kalpesh Mehta, Dr. Yass A.Alkafaji - John Wiley & Sons Global Financial Reporting and Analysis by Alexander
2	Reference Books	Accounting Standards – Rustagi R.P. – Galgotia Publications, Advanced Financial Accounting & Software – Jayaprakash Reddy – APH Publication Indian Accounting Standards & GAAP – Dolphy D'Souza – Snowwhite Publications
3	Supplementary Reading Material	E Learning Modules developed by Deloitte, The Management Accountant
4	Websites	www.ifrs.org www.ifrs.com ifrs.icai.org
5	Journals	Journal of Accountancy, The Chartered Accountant

Semester	III	Specialization	Finance
Course Code	312FIN	Type	Subject – Elective
Course Title	Corporate Financial Restructuring		

Course Objectives:	
1	To know the concept of Financial Restructuring in Companies.
2	To get acquainted with the factors leading to financial distress of the organization.
3	To understand alternative sources of capital and planning of the same.
4	To know the significance of the Corporate Governance in the overall functionality of the organization.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Basics: Concept of Internal & External Restructuring, Financial perspective in restructuring, Reorganization strategies in corporate organizations, Financial Distress & Bankruptcy, Liquidation, Net Operating Losses, Sources of Funding & Problem of changing Capital Structure, Strategic and Financial Sponsors, Pros and Cons of different Sponsors, Capital Cash Flows Vs. Equity Cash Flows	6 + 1
2	Mergers & Acquisitions: Difference and commonalities of the concepts, differentiation with regard to Take Over, Strategic & Financial Aspects, Hostile vs. Friendly Takeovers, Defense Tactics, Structural Defenses Vs. Non Structural Defenses, Contribution Analysis, Duties of Board of Directors, Market for Corporate Control	5 + 1
3	Risk Management in Mergers & Acquisitions: Collars, Role of Arbitrators in Mergers & Acquisitions, Interpretation of Arbitrage Spreads, Earn Out and CVRs, Pre Closing & Post Closing M&A Risks, Management of M&A Risk with the help of Collars, Fixed Collar Offers Vs. Floating Collar Offers	6 + 1
4	Methods of Enterprise Valuation: Weighted Average Cost of Capital, Discounted Cash Flows Model, Equity/Residual Cash Flows, Adjusted Present Value, Capital / Leveraged Cash Flows, Relative Valuation Analysis, Sensitivity Analysis, Tables, Developing Break Up Analysis	5 + 1
5	Corporate Governance: Significance in the Indian context, Reference of CG in Indian Companies Act 1956, Role of Board of Directors, Disclosures and Clarifications on the part of Board of Directors and Inclusion in the Auditors' Report	3 + 1

Learning Resources:		
1	Text Books	Business Environment – Justin Paul – Tata McGraw Hill, Business Environment – A.C. Fernando – Pearson Education
2	Reference Books	Corporate Restructuring: Lessons from experience - Michael. Pomerleano, William Shaw Creating Value Through Corporate Restructuring: Case Studies in Bankruptcies, Buyouts, and Breakups (Wiley Finance) - Stuart C. Gilson, Edward I. Altman Valuation: Mergers, Buyouts and Restructuring (Wiley Finance) - Enrique R. Arzac
3	Supplementary Reading Material	Case Studies in Mergers & Acquisitions – ICFAI University – ICFAI University Press, Case Studies on Mergers & Acquisitions – R. Muthukumar – ICFAI University Press
4	Websites	www.sebi.gov.in www.mca.gov.in
5	Journals	Journal of Restructuring Finance

Semester	III	Specialization	Finance
Course Code	313FIN	Type	Subject – Elective
Course Title	Equity Research		

Course Objectives:

1	To understand the importance of equity research.
2	To understand how excel can be leveraged for better analysis of a company.
3	To give recommendation based on fundamental and technical analysis.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Equity Research – Concept & Definition: Meaning and Scope of Equity Research, Fundamental Analysis (Economy analysis, Industry Analysis, Company Analysis), and Technical Analysis.	5 + 1
2	Developing a Financial Model: Input all the financial data from the annual report of the company, Concepts of standardization and regrouping of data as per the need of the analyst, development of a model - Introduction of financial modeling design, create a common-size statement and analysis of past performance in excel, trend analysis, Ratio analysis, creating input & forecast assumptions sheet, output & report sheet, sensitivity analysis Company Valuation: equity stock valuation model – Discounted Cash Flow Method, Relative valuation & Dividend Discount Model	7 + 1
3	Company Analysis Using Market Information: Concept of oscillators and calculation of oscillators from the data of 5 years prices, High, low, average price, moving averages - simple, exponential, rate of change indicators (ROC) , relative strength index, (RSI), Moving average convergence and divergence (MACD)	3 + 1
4	Company Analysis Using Technical Analysis: Understanding various charts - bullish trend, bearish trend, price chart, line chart, bar chart, Japanese candle stick chart, Chart Patterns - support and resistance, reversal pattern, head and shoulder formation, Inverse head and shoulder formation, Continuation Patterns - Triangles, Flags and Pennants, Overall decision making for purchase / sale of share of a company	5 + 1
5	Writing Equity Research Report : Structure for writing equity research report & presentation of the report with recommendation	5 + 1

Note:

1	Case study approach is recommended for better understanding of the subject.
2.	Problems on valuation have to be taken.

Learning Resources:		
1	Text Books	Mastering Financial Modeling in Microsoft Excel – Alastair L. Day Business Data Analysis using excel – David Whigham Practical Financial Modeling – Jonathan Swan
2	Reference Books	Business analysis with Microsoft excel – Conrad Calbarg Understanding and analyzing balance sheets using excel worksheet – Rube. J Bodhanwala
3	Supplementary Reading Material	Research report of various broking firms can be referred. Crisil Database, ACE Equity, Bloomberg Capital Markets Magazine
4	Websites	www.nseindia.com www.bseindia.com www.moneycontrol.com www.reuters.com www.bloomberg.com
5	Journals	Financial Analysts Journal International Journal of bonds and currency Derivatives Journal of Applied Finance International Review of financial analysis Journal of Derivatives Journal of Derivatives & Hedge Funds Journal of Financial Markets Journal of Investing

Semester	III	Specialization	Finance
Course Code	314FIN	Type	Subject - Elective
Course Title	Credit Analysis and Appraisal		

Course Objectives:

1	To familiarize students with the various aspects of credit management.
2	To introduce the various processes involved in the credit monitoring practices.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Principles of Credit Management: Principles of Lending – Evaluation of Borrower – Sanction limit-Principles of good lending	3+1
2	Objectives of Credit Management: Credit Allocation – Credit Evaluation – Financial statement analysis- Cash flow analysis – Projections- Management of the firm and other factors- Feasibility study- Fundamental credit issues -Borrower study and bankers opinion -Credit Discipline- Credit Monitoring.	7+1
3	Credit Policy in Banks: Need for Credit Policy – Components of Credit Policy – Credit Policy -Credit Culture- Credit institutions - Types of Credit – Bank Credit for Various Sectors	6+1
4	Documentation: Importance of Documentation – Security of Documentation – Renewal of Documents – Security Offered for Documents.	5+1
5	Credit Monitoring: Financial Supervision – Financial Follow-up – Financial Follow-up Reports- - Physical Follow – up.-Identifying Problem Loans – Loan Classification – NPA management	4+1

Learning Resources:

1	Text Books	Credit Appraisal, Risk Analysis and Decision Making – D.D.Mukherjee - Snow White Publications Banking Strategy, Credit Appraisal, and Lending Decisions – Hrishikes Bhattacharya – Oxford University Press Shekar and Shekar “ Banking Theory and Practice “
2	Reference Books	Vishwanathan R. “ Industrial Finance “ Macmillan, New Delhi Prasad K, Nirmala and Chandradas. “ Banking and Financial System”
3	Supplementary Reading Material	W. Koch Scott, Timothy. “ Bank Management”
4	Websites	RBI Website
5	Journals	Risk Management

Semester	III	Specialization	Finance
Course Code	315FIN	Type	Subject – Elective
Course Title	Banking Operations – I		

Course Objectives:

1	To understand the basics of Banking and the emergence of Banking in India.
2	To get acquainted with the functionality of the Banks.
3	To know the meaning and use of commonly used technologies in Banking.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Basic Concepts: Banking, Emergence of Banks – Global and Indian Perspective, Journey of Banking in India, Role of Banks as important Aids to Trade, Functions of Banks, Contribution in GDP and effect on Indian Economy	6 + 1
2	Regulatory Framework: Banking Regulation Act, RBI Act, SEBI, IRDA, RBI regulations with regard to Nationalized & Cooperative Banks, Private Banks, Foreign Banks	4 + 1
3	Types of Banks & Banking: Nationalized & Co Operative Banks, Regional Rural Banks, Scheduled Banks, Private Banks, Foreign Banks, Wholesale and Retail Banking	4 + 1
4	Funding & Recovery: Sector Specific funding, short term and long term loans, MSME funding, Mortgage, Pledge & Hypothecation, Recovery of loans, Non-Performing Assets, Effect of NPA on bank's profitability	4 + 1
5	Concepts in Banking and Accounting of transactions: Accounting in banks, Final Accounts of Banks, Management of Assets and Liabilities, Provision for NPAs, Income Recognition and Asset Classification Norms, Electronic Banking, RTGS, ATM, MICR, OCR, OMR, DATANET	7 + 1

Learning Resources:

1	Text Books	The Indian Financial System and Development – Vasant Desai – Himalaya Publishing House
2	Reference Books	Indian Financial System – M Y Khan – Tata McGraw Hill Accounting and Finance for Bankers – Indian Institute of Banking & Finance – Macmillan
3	Supplementary Reading Material	Reserve Bank Bulletins Economic Times Business Standard
4	Websites	www.bankingandfinancereview.com
5	Journals	Journal of banking and finance International Journal of Banking Accounting and Finance

Semester	III	Specialization	Finance
Course Code	316FIN	Type	Subject – Elective
Course Title	Treasury Management		

Course Objectives:

1	To understand the concept of treasury management.
2	To understand the management of funds.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Scope and Function of Treasury Management: Objectives of Treasury, Structure and Organization, Responsibilities of Treasury Manager, Function of treasury, Role and Functions of RBI, Recent Developments in the RBI's Policy Framework.	5 + 1
2	Short, Medium and Long term Funding, Cost Centre / Profit Centre: Financial Planning and Control, Capital Budgeting, Risk Analysis	5 + 1
3	Cash Management : Meaning and Importance of Cash Management, Objectives of Cash Management, Cash Flow Cycle, Cash Flow Budgeting and Forecasting, Liquidity Management: Objectives, Sources & Maturity Concerns: Short term and Long term Liquidity	5 + 1
4	Internal Control: The Need and Importance – Financial and Operational risks – Internal v/s External Control, The Need and Significance of Internal and External Audit	5 + 1
5	Treasury's role in International Banking: Changing Global Scenario and Treasury Functions, Treasury Structure- Front and Back Office, Forex Cash Management – Positions v/s Cash Flows Funding Alternatives, Moral and Ethical aspects.	5 + 1

Learning Resources:

1	Text Books	Financial Management – Ravi Kishore
2	Reference Books	Cost Accounting & Financial Management – Ravi Kishore – Taxman Publication, Corporate Finance & Investment –R. Pike and B Neale – Prentice Hall of India, International Corporate Finance – Ghosh Roy - Mac Milan India
3	Supplementary Reading Material	Effective Management Workout – V.K.Singh – Himalaya Publishing House
4	Websites	www.treasury-management.com www.iibf.org.in www.icai.org ,
5	Journals	Journal of Corporate Treasury Management (JCTM) Journal of Accountancy

Semester	III	Specialization	Finance
Course Code	317FIN	Type	Subject – Elective
Course Title	Financial Instruments & Derivatives		

Course Objectives:

1	To provide students with an introduction to the theory and practice of financial instruments.
2	To develop an understanding and importance of financial derivatives and institutional structure of the market.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Capital and Money Market Financial Instruments: Meaning, definition need and importance ,types of various financial instruments,	5 + 1
2	Money market Instruments: Call/money ,Treasury Bills ,Term money, Certificate of Deposits, Commercial papers, Inter banks term money	5 + 1
3	Capital market instruments: Equity shares, Preference shares, No voting shares, Convertible Cumulative Debentures, Fixed Deposits, Warrants Debentures and Bonds, GDR,ADR	5 + 1
4	Derivatives: Meaning and characteristics ,types of derivatives ,Spot, forward and future contracts, stock index futures, Commodity derivatives markets	5 + 1
5	Option Contract: Call and Put option Capital Asset pricing Model, SWAP, Currency derivatives, Risk management in derivatives	5 + 1

Learning Resources:

1	Text Books	Indian Financial Services – M.Y.Khan Marketing of financial Services – V.A. Avdhani Relevant text of SEBI Guidelines
2	Reference Books	Bhole,L.M. Financial Institutions And Markets, TATA Mc Graw-Hill,New Delhi Clifford Gomez, Financial Markets, Institutions and financial Services PHI Learning
3	Supplementary Reading Material	Securities and Exchange Board of India Act,1992 NabhiManual of SEBI Guidelines (1994):NabhiPublications,New Delhi
4	Websites	www.nseindia.com www.bseindia.com www.moneycontrol.com www.sebi.gov.in
5	Journals	Financial Analysts Journal International Journal of bonds and currency Derivatives Journal of Applied Finance International Review of financial analysis Journal of Derivatives Journal of Derivatives & Hedge Funds Journal of Financial Markets Journal of Investing

Semester	III	Specialization	Finance
Course Code	318 FIN	Type	Subject – Elective
Course Title	Financial Statement Analysis		

Course Objectives:

1	To equip the students to have an in depth understanding of the Financial Statements.
2	To enable the students to use various contemporary techniques of financial analysis to be able to give an opinion on the financial performance of companies.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Implication of following Accounting Standards a. Diluted EPS – AS 20 b. Deferred Tax – AS 22 c. Foreign Exchange Transactions – AS 11 d. Segment Reporting – AS 17 e. Investment – AS 12 f. Leases –AS 19 g. Cash Flow Statement – AS 3 h. AS 9 – Revenue Recognition i. AS 28 Impairment of Assets j. AS 26 Intangible Assets k. AS 29 Provisions / Contingent Liabilities, Contingent Assets.	5 + 1
2	Analysis and Interpretation of Financial Statements: Using techniques of ratio analysis, trend analysis, common size statement, Du Pont Analysis, Multiple Discriminant Analysis.	5 + 1
3	Concept of Funds Flow, Cash Flow: Analysis of financial Statements using Funds Flow and Cash Flow	5 + 1
4	Analysis of : Director's Report , Auditor's Report, Management Discussion And Analysis Report, Corporate Governance, EVA	5 + 1
5	Window dressing of accounts: Concept of Window dressing and its implication on profits – Live case studies, Use of Off-the-Balance Sheet financing and their implications.	5 + 1

Learning Resources:

1	Text Books	Financial Statement Analysis – Gokul Sinha Financial Management – Khan & Jain Financial Management – R.P. Rustagi - Taxman
2	Reference Books	Financial Accounting and Management – Ambarish Gupta Analysis of Financial Statements – Bernstein Wild. Accounting Standards – DolphyD'souza
3	Supplementary Reading Material	Financial Statement Analysis by Gibson Original Accounting Standards Seven Steps to Mastering Business Analysis by Carkenord Advanced Financial Management – I M Pandey, Prasanna Chandra
4	Websites	www.icaai.org www.icfai.org
5	Journals	Indian Journal of Finance

Semester	III	Specialization	Finance
Course Code	319FIN	Type	Subject – Elective
Course Title	Futures and Options		

Course Objectives:

1	To develop an understanding of financial derivatives and the institutional structure of the markets on which they are traded.
2	To have an understanding of the analytical tools necessary to price such instruments.
3	To highlight the role of financial derivatives in the modern capital markets, in particular for risk management.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: Definition of Derivative, Brief History of Derivatives, Participants in Derivative Market, Economic functions of derivative market, Evolution of Commodity, Currency, Stocks and Interest Rate Derivatives, Structure of Derivative Market - Forwards, Futures, Options, Swaps, etc. Reasons for Trading: Risk Management, Speculation and Arbitrage	5 + 1
2	Market Characteristics: Futures and Options Contract Specifications, Underlying Asset, Contract Size, and Delivery Specifications. Mark to Market using Margin Accounts, Familiarizing with Market Quotes, Trading Strategies involving Options and Futures, Interest Rate Derivatives, Contractual Specification - Floating and Fixed Rate, Valuation of Interest Rate Derivatives.	5 + 1
3	Derivatives Pricing Theory: Option Pricing: Option Payoffs, Black-Scholes formula for Option Pricing, Futures Pricing: Pricing by Arbitrage: Relationship between Futures and Spot Price (cost of carry and reverse cost of carry), Difference between Futures and Forward Price	5 + 1
4	Risk Analysis and Management: Risk Measurement and Management Framework, Delta/Theta/Vega & Gamma risks of options, Hedging with Futures, Derivatives Disclosure: Accounting Issues in Derivatives.	5 + 1
5	Options and Futures Applications in India: Structure of Indian Stock Markets and the Operational Efficiency of Options and Futures, Determination of the Fair Value of Futures and Options Prices, Interactions between Spot Equity Trading and Trading in Derivatives. Index Options and Futures, Constructing an Index, Methodology of Construction, Trading an Index. Conditions necessary to Improve the Market Structure in India and Policy Interventions.	5 + 1

Learning Resources:		
1	Text Books	Futures & Options – A.N.Sridhar Financial Derivatives – S.L.Gupta Financial Derivatives – S.S. Kumar Options, Futures & Other Derivatives – John C. Hull Option Volatility & Pricing – Sheldon Naten Berg The New Options Market – Max Ansbacher
2	Reference Books	Futures & Options – ND Vohra, B.R.Bagr Derivatives & Risk Management Basics – Don. M. chance, Robert Brooks. Derivatives & Risk Management – Jayanth Rama Varma
3	Supplementary Reading Material	NCFM Modules on Derivatives
4	Websites	www.nseindia.com www.bseindia.com www.iijournal.com
5	Journals	Financial Analysts Journal International Journal of bonds and currency Derivatives Journal of Applied Finance International Review of financial analysis Journal of Derivatives Journal of Derivatives & Hedge Funds Journal of Financial Markets Journal of Investing

Semester	III	Specialization	Finance
Course Code	320FIN	Type	Subject – Elective
Course Title	Back Office Operations		

Course Objectives:

1	To understand the processes involved in the financial services sector.
2	To know the process to be followed by the merchant banker

Syllabus:

Unit Number	Contents	Number of Sessions
1	Know Your Client, Anti-Money Laundering & Combating Financing of Terrorism : Principles, Client Due Diligence, Customer Policy, Clients of Acceptance Special Category, Client Identification Procedure, Client Registration - Proof of Identity, Proof of Address, PAN Card, Additional Requirements for non-individuals, Unique Client Code, Power of Attorney, Nomination, Changes in Client Information - Change of Address, Change in Bank Details, Change in Signatory, Minor becoming major, KYC Registration Agencies, Suspicious Transactions Reporting, Designated Individuals & Entities, Record Keeping	5 + 1
2	Mutual Fund and AMC Operations: Legal Structure, Net Asset Value (NAV), Expenses, Load, Offer Documents, Investor Transactions (Normal Physical Mode), Acquisition and sale of Units by Investor from / to the Scheme, Redemption of Units on closure of scheme, Systematic Investment Plan, Systematic Withdrawal Plan, Systematic Transfer Plan, Dividend Re-investment Option, Dividend Mechanics, Income Distribution Tax, Securities Transaction Tax (STT), Cut-off Time Regulations.	5 + 1
3	Depository Operations: Depository and Issuer, Depository Participant, Transactions - . Account Opening, De-Materialization, Re-Materialization, Secondary Market Purchases, Secondary Market Sales, Standing Instructions, Power of Attorney, Transposition, Transmission of Securities, Dividends, Pledging Securities, Freezing of Accounts, SMS Alerts	5 + 1
4	Qualified Foreign Investors – Equity Shares: Background, Permitted Transactions, Investment Restrictions, and Administration of Investment Limit, Other Conditions, and Transaction Flow. Qualified Foreign Investors – Mutual Funds : Background, Investment Limit, Transaction Flow, Direct Route (Demat), Indirect Route (Unit Confirmation Receipts), Other Conditions.	5 + 1
5	SEBI guidelines: SEBI guidelines relating to IPOs, FPOs, Right Issue, Bonus Issues, QIBs, ADRs, GDR, Buy Back Of Shares, FCCB. Common Bid-cum-Application Form. Settlement - Clearing House, Other Agencies Involved in Settlement, Clearing Mechanism, Clearing Process, Settlement Process, Transaction Cycle - T+2 Rolling Settlement Calendar, Delivery Versus Payment (DVP) / Hand Delivery, Auction Settlement, F&O Settlement, Books of Accounts, Straight Through Processing (STP).	5 + 1

Learning Resources:		
1	Text Books	Advanced Financial Services – P.K. Sinha – Nirali Prakashan Financial Management – Ravi Kishore – Taxman Publication
2	Reference Books	Advanced Financial Management – M.A.Kohok, Indian Financial System – M.Y.Khan
3	Supplementary Reading Material	Dalal Street, Capital Markets
4	Websites	www.sebi.gov.in www.nseindia.com www.bseindia.com www.nsdl.co.in
5	Journals	

Semester	III	Specialization	Finance
Course Code	321FIN	Type	Subject – Elective
Course Title	Principles of Insurance		

Course Objectives:

1	To understand the various operations involved in managing insurance.
2	To understand the pricing, financing and risk diversification strategies of insurance companies

Syllabus:

Unit Number	Contents	Number of Sessions
1	Fundamentals: Functions and Organization of Insurance -Types of Organization – Organization Structure-Function of Insurers	4+1
2	Underwriting, Claims, Intermediaries: Underwriting - Objectives and Principles - Underwriting in Life Insurance - Underwriting in Non- Life Insurance. Claims Management – Principles - Claim Settlement in Life Insurance - Claim Settlement in General Insurance - Repudiation of Claims. Insurance Intermediaries - Distribution of Insurance products - Role of Intermediaries - Surveyors and Loss Assessors - Third Party Administrators – Agents – Brokers - Corporate Agents- Banc assurance — Ombudsman – Lok-Adalats	5+1
3	Pricing And Finance: Insurance Pricing - Pricing Objectives - Types of Rating - Rating Considerations - Rating in Life Insurance - Rate Making Entities - Rate Making in General Insurance – De tariffing and its impact in India. Financial Aspects of Insurance Companies - Balance Sheet, Profit and Loss Account of Insurance Companies - Ratio Analysis in Insurance Companies - Risk Return Trade off -Measuring Financial Performance	6 + 1
4	Marketing of Insurance Products: Marketing of Insurance Products - Marketing Practices - Critical success Factors for Insurance Marketers - Distribution Channels - e-Commerce in Insurance Industry - Case studies of Indian Companies	5+1
5	Risk Management: Reinsurance - Principles, Role, Nature and Techniques of Reinsurance - Reinsurance in Indian Perspective - Global Reinsurance Market - Reinsurance Trading. Risk Management in Insurance Companies - Evaluation of Risk in Insurance Services - Risk Management Systems - Management of Systematic Risk - IRDA Framework for Risk Management - Catastrophe (CAT)Bonds	5 + 1

Learning Resources:		
1	Text Books	Insurance and Risk Management, 2 nd Edition, P.K.Gupta, Himalaya Publishing House Insurance, Principles and Practice, S.N.Mishra, S.B.Mishra, S Chand Principles of Insurance Management, Neelam Gulati, Excel Books Legal & Regulatory Aspects of Insurance by NIA Elements of Actuarial Science by NIA Insurance Business Environment & Insurance Company Operations by NIA Financial Management & Insurance Accounting by NIA
2	Reference Books	Principles of Risk Management and Insurance, 9 th Edition, George Rejda, Pearson Education Risk Management and Insurance by Trieschmann
3	Supplementary Reading Material	Economic Times, Business Standard,
4	Websites	National Insurance of India www.actuariesindia.org ,
5	Journals	Journal of Insurance Management

Semester	III	Specialization	Finance
Course Code	322FIN	Type	Subject – Elective
Course Title	Rural Financial Institutions		

Course Objectives:

1	To understand various avenues of finance available for the development of rural area.
2	To understand the role of financial institutions in rural India

Syllabus:

Unit Number	Contents	Number of Sessions
1	Regulation of Rural Financial Services: Regulatory framework of RFIs – Reserve Bank of India and its policy and functions in rural banking – National Bank for Agriculture and Rural Development – Impact of economic liberalization and deregulation of interest rates in RFIs, Introduction to Islamic Banking.	5 + 1
2	Co-operative Banks: Concept, Structure and special features of co-operatives banking – draft co-operatives bill – primary level credit institution, their functioning and problems – business development plans – District Central Co-operative Banks – structure and functions — Deregulation of interest rates, Land Development Banks- Structure and functions.	5 + 1
3	Regional Rural Banks: Genesis and need – problems of RRBs - structural weaknesses – working group of RRBs (Kelkar committee report) – Recommendations of committee on Financial sector reforms – recent policy changes relating to RRBs – Deregulation of interest rates and prudential norms – Turnaround strategies – DAP/MOU for revamping and re-structuring.	5 + 1
4	Rural Banking in Commercial Banks: Rural lending by commercial banks- problems of rural branches of commercial banks – transaction cost and risk cost of rural financing – impact of recent policy changes.	5 + 1
5	Local Area Banks / Other Financial Institutions: Emerging Trends Genesis – RBI Guidelines on Local Area Banks / Other financial Institutions like private banks, Non- Banking Financial Companies, Linkages with Private Money Lenders, Emerging Trends in rural banking, Microcredit, NGO involvement. Reforms in rural credit system.	5 + 1

Learning Resources:

1	Text Books	Banking – Dharmaraj E – Scitech Publications
2	Reference Books	Indian Economy – Datt, Sundaram – S.Chand& Sons, Indian Economic Problem – Amitabh Bhattacharya – Metropolitan Publications,
3	Supplementary Reading Material	Microfinance – Rajagopalan – ICFAI Press,
4	Websites	www.nabard.org www.banknetindia.com www.rbi.org.in www.iba.org
5	Journals	Asian Journal of Agricultural & Rural Development Journal of Industrial and Rural Development

Semester	III	Specialization	Finance
Course Code	323FIN	Type	Subject – Elective
Course Title	Social Finance for Inclusive Growth - I		

Course Objectives:

1	To highlight the need for financial products that help the asset poor households and the marginalized communities, including micro entrepreneurs, engage in income-generating activities.
2	To give inputs for designing of innovative financial contracts and instruments, reducing the risk of lenders as well as borrowers, and most importantly credit enhancements and guarantees.
3	To highlight innovations in financial contract design and risk for financial inclusion.
4	To understand the role of financial institutions in financial inclusion.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Financial Markets: Accessibility of Financial Markets to poor in India-Demand & Supply issues	5 + 1
2	Innovative Financial Products: Financial innovations beyond microcredit, urban finance, low income housing finance, Micro Enterprise Financing Innovations	5 + 1
3	Finance constraints faced by microenterprises : Financing constraints faced by microenterprises, restricting access to finance, Financial market innovations supporting MSME finance, financing startup and venture capital fund, credit guarantee mechanisms	5 + 1
4	Impact Investing: Value Creation at the Bottom of the Pyramid, balancing the needs of investors as well as social entrepreneurs. Funding Options for innovations	5 + 1
5	Capital Markets & Access to Finance: Financial innovations to support savings & Investments of asset poor households, framework for managing inflation risks, etc. global and Indian experiences. Micro-SIP& Pension, investment linked insurance products. Investment and Insurance-linked Products : Credit-insurance based financing arrangement	5 + 1

Learning Resources:

1	Text Books	Inclusive Growth – Indian Institute of Banking & Finance, Microfinance – Somnath – Excel Books
2	Reference Books	New Trends in Banking – VV Ravi Kumar – ICFAI Press, Principles & Practice of Banking – IIBF – Macmillan Publishing,
3	Supplementary Reading Material	Financial Inclusion – Sameer Kochharm, R. Chandrashekar, Advanced Financial Management – M.A. Kohok – Everest Publishing
4	Websites	www.impactinvesting.in www.oecd.org
5	Journals	Indian Journal of Finance

University of Pune

MBA SYLLABUS: SEMESTER III
INFORMATION TECHNOLOGY MANAGEMENT - SPECIALIZATION

Semester	III	Specialization	Information Technology
Course Code	305IT	Type	Specialization - Core
Course Title	I.T. Management		

Course Objectives:

1	To get a thorough update of Information Technology used in Business Organizations.
2	To develop understanding of managerial aspects so as to use Information technology effectively and efficiently.
3	To develop capability to integrate different but related aspects of Information Technology
4	To develop a view of IT Management, especially, for a large organization
5	To appreciate IT Management as an independent and important field of work, different from IT for Management

Syllabus:

Unit Number	Contents	Number of Sessions
1	Hardware Management – Historical Review - Types of Computers – Computer Peripherals - Input Technologies and Devices– Output Technologies and Devices - Storage Technologies and Devices - Future Scenario – Managerial considerations in acquisition, maintenance, controlling, replacement of Hardware	7+2
2	Application Software Management - Overview of General Purpose Application Software such as Software Suites, Messaging, Groupware, Conferencing Commercial and Corporate Tools and Overview of Application Specific Software such as Programming languages, ERP, e-Commerce, CRM, Scientific and Engineering Programs. System Software Management –Overview of Operating Systems, Network Management Programs, Database Management Programs, Servers, System Utilities, Performance and Security Monitors, System Development Programs. Managerial considerations in selection, maintenance, controlling, replacement of Software	7+2
3	Networking Management – Networking Trends – Internet Basics – Intranet and Extranet – Overview of Networking Alternatives, Networking types, Networking media, Networking processors, Networking software, Networking architecture and Networking protocols	7+2
4	Data Management –Database Concepts and Development - Types of Databases – Application Development thru DBMS - Database Administration Data Resource Management –Data warehouse and Data Mining - Data Recovery Practices and Technologies	7+2
5	(a) Security Management –Need, Case Studies – Types of Computer Crime – Cyber Law - Tools of security Management - Security Defenses – System Controls and Audit (b) People Management -- I.T. Organization of a large corporation – Selection and Recruitment – Training – Retention – Performance Measurement	7+2

Learning Resources:		
1	Text Books	Management Information System Laudon, Laudon and Dass 11 th Edition Pearson Management Information Systems Obrien, Marakas, Behl 9 ^h EditionTata McGraw Hill Management Information Systems W S Jawadekar, 4 th Edition Tata McGraw Hill
2	Reference Books	IT system Management by Rich Schiesser Enterprise Computing by Alan R. Simpson
3	Supplementary Reading Material	The Influence of IT Management Practice on IT Use in Large Organizations Journal MIS Quarterly Author: Boynton Andrew, Zmud Robert & Jacobs Gerry
4	Websites	www.csus.edu whatis.techtarget.com
5	Journals	MIS Quarterly, University of Minnesota CSI Communications, Computer Society of India

Semester	III	Specialization	Information Technology
Course Code	306IT	Type	Specialization - Core
Course Title	E-Business		

Course Objectives:

1	To appreciate e-Business as a significant business segment of the future
2	To get an overview of technological aspects of e-business
3	To understand strategic aspects of e-business
4	To develop capacity to initiate/lead an e-business venture/ business segment

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction, Background and Current Status, Case studies	6+2
2	e-Business Architecture - Enabling Technologies- Information distribution and messaging Technologies- Information Publishing Technology	7+2
3	e-Business Infrastructure - e-Business Design, Capacity Planning, Performance Modeling- Mobile commerce- framework and models	7+2
4	e-Business Models - e-Marketing, e-CRM, Internet advertising - e-Business Security/Payment Services - e-SCM, e-Procurement - Portals- Search Engines – Online Community building	8+2
5	e-Business Strategy into Action, Challenges, Legal Issues - Business Plan Presentation and Demonstration "Launching e-Business: From Idea to Realization".	7+2

Learning Resources:

1	Text Books	E-business by Rayudu, Himalaya Publication
2	Reference Books	Knowledge Management by Jawadekar, McGraw-Hill e-Commerce A Manager's Guide to e-Business by Parag Diwan & Sunil Sharma
3	Supplementary Reading Material	E-Government, E-Business, and National Economic Performance Journal: Communications of AIS , Shirish Shrivastava
4	Websites	e-business.com www.ecommercetimes.com
5	Journals	Journal of Electronic Commerce Research International Journal of Electronic Commerce

Semester	III	Specialization	Information Technology
Course Code	307IT	Type	Subject - Elective
Course Title	Software Engineering		

Course Objectives:

1	To develop theoretically sound understanding of Software Engineering Methods
2	To develop understanding of object oriented software Engineering
3	To develop ability to represent diagrammatically and in descriptive form, software engineering schemas

Syllabus:

Unit Number	Contents	Number of Sessions
1	Nature of Software, Software Engineering, Software Process, Unique Nature of WebApps, Basic System Development Life Cycle	6+1
2	Different approaches and models for System- Generic Process Model, Waterfall, Spiral, Prototyping, RAD, JAD	6+1
3	Requirements Anticipation, Requirements Investigation, Requirements Specifications	6+1
4	Use-case Driven Object oriented Analysis - Use case Diagram, Activity Diagram, Sequence diagram, Collaboration Diagram and Class Diagram	8+2
5	User Interface design	4

Learning Resources:

1	Text Books	Software Engineering Pressman, TMH,7th Edition
2	Reference Books	System Analysis and Design Jalote, Narosa Publication, 3rd Edition Software Engineering W S Jawadekar, TMH. System Analysis & Design Elias Awad, Galgotia Publication Object Oriented Analysis and Design with Applications by Grady Booch., Benjamin / Cummings , 1994., Pearson,3rd Edition
3	Supplementary Reading Material	Management Information System for Enterprise Applications, Adamantions Koumpis
4	Websites	www.unesco-ihe.org
5	Journals	International Journal of Software Engineering & Knowledge Management TSE - IEEE Transactions on Software Engineering SPE - Software - Practice and Experience

Semester	III	Specialization	Information Technology
Course Code	308IT	Type	Subject - Elective
Course Title	Mobile Computing with Android		

Course Objectives:

1	To understand technical aspects of M-computing
2	To appreciate impact of M-computing on Information Technology scenario
3	To understand M-computing applications; initiate new applications

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: Generations of mobile computing, Spectrum allocation, Standard Bodies, Players in the Wireless Space, three tier architecture of mobile computing, Mobile Computing through Internet, Basic cellular system, concept of frequency reuse channels, hand-off mechanism, cell splitting	5+1
2	GSM & GPRS : GSM features and Architecture , Network Aspects in GSM, GSM Frequency Allocation, Mobility management, hand-off mechanisms, cell splitting, Security issues used in GSM, GPRS features and architecture, network operations, data services in GPRS, applications and limitations, SMS and MMS services architecture and operation details	5+1
3	Emerging Telecommunication Technologies : Introduction, Bluetooth, EDGE, UMTS, Wireless Broadband (WiMAX), Mobile IP, Java Card, WLAN, Ad-hoc Networks, Sensor Networks, Spread Spectrum technology, CDMA, Third generation networks and applications, WAP: Model, architecture & protocol stack.	5+1
4	Security Issues in Mobile Computing: Introduction, Information security, Security techniques and Algorithms, security Protocols, Public Key Infrastructure, Trust, Security Models, Security Frameworks for Mobile Environment.	4+1
5	M-Commerce : Introduction to m-commerce :Emerging applications, different players in m-commerce, m-commerce life cycle Mobile financial services, mobile entertainment services, and proactive service Management Management of mobile commerce services: Content development and distribution to hand-held devices, content caching, pricing of mobile commerce services The emerging issues in mobile commerce: The role of emerging wireless LANs and 3G/4G wireless networks, personalized content management, implementation challenges in m-commerce, futuristic m-commerce services.	6+1

Learning Resources:		
1	Text Books	Mobile Computing (Technology, Applications and Service Creation) , Asoke. K Talukder and Roopa R. Yavagal. Tata McGraw Hill
2	Reference Books	Mobile Communication : Jachan Schiller, Adison-Wesley. Wireless and Mobile Network Architecture : Yi-Bing Lin, Wiley Mobile Commerce: Technology, Theory and Applications by BrianMennecke and Troy J. Strader, Idea Group Publishing
3	Supplementary Reading Material	
4	Websites	techbits.co.in www.zslinc.com
5	Journals	Wireless communication & mobile computing IEEE Transactions on Mobile Computing

Semester	III	Specialization	Information Technology
Course Code	309IT	Type	Subject - Elective
Course Title	RDBMS with Oracle		

Course Objectives:

1	To understand theoretical concepts in Relational Data Base Management
2	To develop working level proficiency for writing SQL commands
3	To develop capability to design applications for a real life DBMS problem

Syllabus:

Unit Number	Contents	Number of Sessions
1	Overview of DBMS : Architecture, Data models, constraints	3
2	Relational model concept : Relational model constraints ,relational Algebra, Relational database language, Data definition in SQL, Views and Queries in SQL, Specifying constraints and Indexes in SQL, Specifying constraints management systems,	6+1
3	SQL Functions : Date - Sys_date , next_day, Add_months, last_day, months_between. Numeric - round, trunc, abs, ceil, cos, exp, floor. Character - initcap, lower, upper, ltrim, rtrim, translate, length, lpad, rpad, replace. Conversion - to_char, to_date, to_number. Miscellaneous - Uid, User, nvl, vsize, decode, rownum. Group function - avg, max, min, sum, count, with Group by and Having Clause. Nested functions.	6+1
4	Joins : Simple join Equi join Non equi join Self join Outer join Set operators (Union, union all, intersect, minus) Sub queries and Correlated query DML statements (Insert, Update, Delete with whereclause) TCL (Commit, Rollback, Saveint)	5+1
5	Tables Create, Alter, Drop, Truncate, Rename Constraints (Primary key, Foreign Key, Unique Key, Check, Default, Not Null, On delete, Cascade) Column level and Table level constraints Oracle Objects Views, Sequences, Synonyms, Index (Define, Alter and Drop)	6+1

Learning Resources:		
1	Text Books	Data Base System Concept by Korth, TMH, 5 th Edition Oracle by Ivan Bayros
2	Reference Books	Introduction To Database Systems By C.J.Date, Pearson. Data Management Systems by Alexis Leon, Mathew Leon Principles of Database Management by James Martin, PHI. SQL - The complete Reference by Groff James & Weinberg Paul., TMH, 2 nd Edition.
3	Supplementary Reading Material	Oracle 7 by Ivan Bayross, BPB Pub.
4	Websites	www.thinkoracle.in
5	Journals	Development of a Relational Database Management System

Semester	III	Specialization	Information Technology
Course Code	310IT	Type	Subject - Elective
Course Title	Software Quality Assurance		

Course Objectives:	
1	To understand concepts and methodology related to Software Quality Assurance
2	To Know software Quality standards specifies by regulatory authorities
3	To develop capability to design Quality Testing processes in software development environment

Syllabus:		
Unit Number	Contents	Number of Sessions
1	Software quality - Definition Software errors, software faults and software failures Software quality assurance – definition and objectives Software quality assurance vs. software quality control The objectives of SQA activities	5+1
2	Pre-project SQA Components Contract Review Development and Quality Plan	5+1
3	SQA components in Project life cycle activities assessment. Verification and Validation Various types of Reviews Inspections Walkthrough Software testing Impact of CASE Tools	5+1
4	Software Quality Factors Mccall's Quality Model Product, Process quality metrics	5+1
5	Standardization ISO 9001 and ISO 9000-3 SEI-CMM IEEE 1012 standard ISO/IEC 12207 standard.	5+1

Learning Resources:		
1	Text Books	Handbook of Software Quality Assurance Software Quality Assurance: Principles and Practices by Nina Godbole
2	Reference Books	Software Quality Assurance from theory to implementation – Danial Galin Software Project management - Edwin Bennatan Project Management Body of Knowledge – PMI
3	Supplementary Reading Material	Software Engineering Roger S. Pressman, TMH, 7 th Edition.
4	Websites	www.softwarecertifications.org www.softwareqatest.com
5	Journals	Software Quality Journal

Semester	III	Specialization	Information Technology
Course Code	311IT	Type	Subject - Elective
Course Title	E-Learning		

Course Objectives:	
1	To understand e-learning as an emerging educational technology
2	To learn use of tools/ technologies used for e-learning based pedagogy
3	To develop capability to initiate e-learning project(s)

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: e-learning- definition. Why e-learning? Elements of e- learning, e-learning content- dimensions, Risks in e-learning, ROI , e- learning cycles, Implementation.	5+1
2	Types of e-learning and technologies required: Learner- led e-learning Facilitated e-learning, Instructor- led e-learning, Embedded e-learning Tele-mentoring and e-coaching, Categories of software tools	5+1
3	Hardware and Networks for e-learning: Selection of e-learning Hardware, network for e-learning, types of networks, private network, private networks, internet, TCP/IP , wireless internet connection.	5+1
4	Tools for accessing e-learning: Web browsers, media players and viewers Tools for offering e-learning: Web servers, LMS- Learning Management Systems , Learning Content Management Systems, Collaboration tools, Virtual- School systems, media servers Tools for creating e-learning content: Course authoring tools, web site authoring tools, how they work?, an overview of popular web site authoring tools, alternatives to web authoring tools, blogging tools, testing and assessment tools Other Tools: Media Editors, Content Converters	5+1
5	Standards For e-learning: Standards for packaging, communication, Metadata, Quality standards , other standards and regulation Trends in e-Learning: Always Online, All information online, All Media digital, Emergence of HDTV video standard, Force or haptic feedback, Telepresence, immersive simulations, embedded system.	5+1

Learning Resources:		
1	Text Books	E- learning strategies – How to get implementation and delivery right first time by Don Morrison, John Wiley and sons Ltd. Methodologies, Tools and New Developments for E-Learning
2	Reference Books	Delivering E- learning : A complete strategy for design, application and assessment – by Kenneth Fee , Kogan Page London and Philadelphia, 2009 E- Learning Tools and Technologies a consumer's guide for trainers, teachers, educators and instructional designers – William Horton, Katherine Horton, Wiley.
3	Supplementary Reading Material	
4	Websites	www.e-learningconsulting.com www.elearningnc.gov
5	Journals	Journal of e-Learning and Knowledge Society

Semester	III	Specialization	Information Technology
Course Code	312IT	Type	Subject - Elective
Course Title	Software Marketing		

Course Objectives:	
1	To understand facets of software marketing as a field of study
2	To develop in depth of understanding of Software Marketing Practices
3	To assist in developing capability to market the software

Syllabus:

Unit Number	Contents	Number of Sessions
1	Global and Indian Software Industry Environment: Historical Growth of the Industry, Market Size, Nature of Products, Projects and Services, Major Players, Industry Associations and their role in market development, Overview of India's Software Export Industry	5+1
2	Services Marketing Mix: 7 Ps of Services Marketing – Service Life Cycle Strategic Aspects of Software Marketing - Identification of potential markets, Industry/ Business analysis and creating/ sustaining competitive advantage - Segmenting, Targeting and Positioning.	5+1
3	Promotion: Role of Promotion in Software Marketing; Personnel Selling, Advertising and Sales Promotion; Trade Shows, Role of Relationship Marketing in promoting software	5+1
4	Distribution: Place – Distribution Strategies for Software Products / Services; Challenges in distribution of Software Products and Services; Role of Internet in distribution of Software Products and Services. Pricing: Factors involved in pricing software Products, Price estimating for Software Projects	5+1
5	Customer Satisfaction & Service Quality: Monitoring and Measuring customer satisfaction. Applying technology to service settings, e-services. Role of People, Process and Physical Evidence in Software Products and Services	5+1

Learning Resources:		
1	Text Books	Services Marketing - Zeithaml, Bitner, Gremler&Pandit, TMGH, 4 th Edition.
2	Reference Books	Services Marketing – Rampal& Gupta Software That Sells : A Practical Guide to Developing and Marketing your Software Project, Edward Hasted
3	Supplementary Reading Material	Services Marketing - Christopher Lovelock
4	Websites	www.softwaremarketingresource.com www.softwareceo.com
5	Journals	Journal of Services Marketing

Semester	III	Specialization	Information Technology
Course Code	313IT	Type	Subject - Elective
Course Title	Business Intelligence and Analytics		

Course Objectives:

1	To understand principles of BI and Analytics at conceptual level
2	To understand application areas for implementing BI and Analytics
3	To develop skills to design BI and Analytics projects

Syllabus:

Unit Number	Contents	Number of Sessions
1	Business Intelligence: definition , concept and need for Business Intelligence, Case studies BI Basics : Data, information and knowledge, Role of Mathematical models	5+1
2	Business Analytics at the strategic level: Strategy and BA , Link between strategy and Business Analytics, BA supporting strategy at functional level, dialogue between strategy and BA functions, information as strategic resource Business Analytics at Analytical level : Statistical data mining, descriptive Statistical methods, lists, reports, automated reports, hypothesis driven methods, data mining with target variables, cluster analysis, Discriminate analysis, logistic regression, principal component analysis.	5+1
3	Business Analytics at Data Warehouse Level, Designing physical database, Deploying and supporting DW/BI system	5+1
4	Business Intelligence Architectures: Cycle of Business Intelligence Analysis, Development of Business Intelligence System, spread sheets, concept of dashboard, OLAP, SOA, decision engineering. BI Tools: Concept of dashboard.	5+1
5	BI Applications in different domains- CRM, HR, Production	5+1

Learning Resources:

1	Text Books	Decision Support and Business Intelligence Systems, Turban, Sharda, Delen, Pearson
2	Reference Books	Business Intelligence Success Factors Tools for aligning your business in the global economy by Olivia Parr Rud, John Wiley and sons , 2009 The Profit impact of Business Intelligence by Steve Williams and Nancy Williams , Morgan Kauffman Publishers/ Elsevier, 2007 Business Intelligence: Practices, Technologies, and Management- Rajiv Sabherwal, Irma Becerra-Fernandez Business Analytics for Managers : Taking Business Intelligence beyond reporting by GERT H.N. Laursen, Jesper Thorlund, Wiley and SAS Business Series, 2010
3	Supplementary Reading Material	The Great Mind Challenge for Business, Vol. 1 and 2, IBM (I) Pvt. Ltd, Bangalore
4	Websites	www.sas.com www.smartdatacollection.com
5	Journals	International Journal of Business Intelligence Research ,

Semester	III	Specialization	Information Technology
Course Code	314IT	Type	Subject - Elective
Course Title	Cyber Laws		

Course Objectives:

1	To understand legal provisions of Information Technology Act, 2000
2	To know Case Law and practical ramifications of the Act

Syllabus:

Unit Number	Contents	Number of Sessions
1	Object and Scope: Genesis, Object, Scope of the Act Encryption - Symmetric Cryptography- Asymmetric Cryptography- RSA Algorithm - Public Key Encryption	5+1
2	Digital Signature: Technology behind Digital Signature - Creating a Digital Signature - Verifying a Digital Signature - Digital Signature and PKI - Digital Signature and the Law. E-Governance and IT Act 2000: Legal recognition of electronic records- Legal recognition of digital signature - Use of electronic records and digital signatures in Government and its agencies.	5+1
3	Certifying Authorities: Need for Certifying Authority and Powers - Appointment, function of Controller - Who can be a Certifying Authority? - Digital Signature Certifications - Generation, Suspension and Revocation of Digital Signature Certificate. Cyber Regulations Appellate Tribunal: Establishment & Composition of Appellate Tribunal - Powers of Adjudicating officer to Award Compensation - Powers of adjudicating officer to Impose Penalty.	5+1
4	Domain Name Disputes and Trademark Law : Concept of Domain Names - New Concepts in Trademark – Jurisprudence - Cybersquatting, Reverse Hijacking, Meta tags, Framing, Spamming - Jurisdiction in Trademark Dispute.	5+1
5	Cyber Crimes: Tampering with Computer Source Documents - Hacking with Computer System - Publishing of Information which is obscene, in Electronic Form - Offences related to Breach of Confidentiality & Privacy – Offences related to Digital Signature Certificate.	5+1

Learning Resources:		
1	Text Books	Cyber Law in India by Farooq Ahmad – Pioneer Books
2	Reference Books	Information Technology Law and Practice by Vakul Sharma – Universal Law Publishing Co. Pvt. Ltd. The Indian Cyber Law by Suresh T Vishwanathan –Bharat Law house New Delhi. Guide to Cyber Laws by Rodney D. Ryder –Wadhwa and Company Nagpur. The Information Technology Act,2000 – Bare Act –Professional Book Publishers – New Delhi
3	Supplementary Reading Material	Hand book of Cyber & E-commerce Laws by P.M. Bakshi & R.K.Suri – Bharat Law house New Delhi.
4	Websites	www.cyberlawindia.net www.asianlaws.org
5	Journals	Cyber Times

Semester	III	Specialization	Information Technology
Course Code	315IT	Type	Subject - Elective
Course Title	IT for Retailing		

Course Objectives:

1	To understand IT in Retail as an important field of practice
2	To know concepts and technologies related to IT in retail

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: Role of IT in Retail Trade, Advantages of IT in Retail Trade like Cost productivity benefits and Marketing benefits, Competitive advantages of Information technology, limitations of using IT, Essential Requirements of an Information System for retail.	5+1
2	Applications of IT in Retail Management: Inventory control, POS - Point of sale, Sales Analysis, Planning and Forecasting, CPFR- Collaborative Planning, Forecasting and Replenishment. Capturing and transmitting data at POS , advantages, elements of data capture – coding system code symbology Means of data capture Database marketing, Data Mining, Data Mart	5+1
3	Technology for retail Management: POS - Point of Scale Technologies available Barcode scanning, electronic shelf tags, self-checkouts, RFID tags, fingerprint authentication. Evolution of Retail Management Systems: Introduction to self-service, supermarkets, atomistic retail to regional networks/ chain stores, POS to point of purchase, push action to push strategy, Point of Differentiation, Point of Customer.	5+1
4	Web based retailing/ E- Retailing/ E Commerce (B2C): Kinds of retailers engaged in electronic commerce: virtual retailers, two channel retailers, Multichannel retailers Role of Internet, Benefits of Internet, Monitoring the progress of an internet e- retail business, limitations of the web. Emergence of eBay, Amazon and others, comparison of web based retailing and other forms of retailing.	5+1
5	Future trends : Smart cards, E-cash, Multimedia kiosks, Customer specific offers, Electronic body scanners, Electronic shelf front Retail management Systems in the market: ERP systems like SAP and PeopleSoft, Specialized retail software providers like JDA, Retek, Essentus, SANDMAR RM 6000 and others, Open source software.	5+1

Learning Resources:		
1	Text Books	Information Technology for retailing by Khurana Pub McGraw Hill
2	Reference Books	Retail Business Management by R. Perumalsamy, Anmol Publications, 2010 Retail Management by Arif Sheikh and Kaneez Fatima, Himalaya Publishing House, 2008.
3	Supplementary Reading Material	Advanced Technologies Management for Retailing - Framework and Cases by Eleonora Pantano and Harry Timmermans, Business Science Reference, 2011
4	Websites	www.retailsystems.com
5	Journals	Journal of Retailing and Consumer Services

University of Pune

Semester	III	Specialization	Information Technology
Course Code	316IT	Type	Subject - Elective
Course Title	Technical Writing		

Course Objectives:

1	To understand Technical Writing at conceptual level
2	To learn tools and techniques as well as approaches to technical writing
3	To develop expertise with a view to taking up technical writing as a career

Syllabus:

Unit Number	Contents	Number of Sessions
1	What is technical writing? – Case studies Role of technical writer- creating user guides, reference, readme, release notes, documentation procedure technical presentations, training slides, online help (preparation and integration.)marketing brochures, web pages, concept note, specs, project proposals company newsletter, CVs, effective emailing guidelines	5+1
2	Quality Characteristics for technical writing Ease of use: Task orientation, Accuracy, Completeness Easy to understand: Clarity, correctness, strike Easy to find: Organization, Retrievability, Visual effectiveness	5+1
3	Audience analysis: tailoring documents for a specific audience. Creating a thesis statement, developing an outline, pre-writing, refinement. Overcoming writer's block/writer's anxiety. Adding emphasis in writing. Annotated bibliographies. Avoiding plagiarism. Conciseness, clarity. Establishing arguments. Paragraphs and paragraphing. Quoting, paraphrasing, and summarizing. Sentence variety. Using appropriate language. Proofreading your writing; parallels in proofreading and debugging.	5+1
4	Writing white paper/ technical report, research paper, report abstracts, manuals and documentation. Effective workplace writing: accentuating the positives, prioritizing your concerns for effective business writing; memo writing, email etiquette, revision in business writing, tone in business writing, model letters for various purposes.	5+1
5	(a)Document types to be covered Business Writing – RFI (Request for information) and RFP (Request For proposal) structure, Writing RFI ,RFP Contents of an Installation manual , Writing an Installation manual Contents of a s/w user manual , Writing a s/w user manual What is a white paper? Contents of a white paper , writing white papers CBT(Computer based training) , Structure of CBT, Preparing CBT Preparing a tutorial (b)Tools of technical writing MS Word, Ms Excel, Ms- PowerPoint, TechSmith SnagIT, Adobe PDF, Adobe Robohelp	5+1

Learning Resources:		
1	Text Books	Technical Writing, Process and Product, Sharon Gerson, Steven Gerson, Pearson
2	Reference Books	Engineers Guide to technical writing by Kenneth G. Budinski, ASM International , 2001 Science and Technical Writing A Manual of style edited by Philip Reubens, Routledge The Best Software Writing I selected and introduced by Joel Spolsky, Apress, 2005 Technical Communication' by Mike Markel
3	Supplementary Reading Material	Developing Quality Technical Information A Handbook of Writers and Editors, IBM Press, 2004
4	Websites	The Online Writing Labs (OWL) family of websites http://owl.english.purdue.edu/ ; specially, http://owl.english.purdue.edu/workshops/hypertext/ http://www.twin-india.org/ - Twinbook 1.chm and Twinbook2.chm http://techwhirl.com www.tc.eserver.org -The most comprehensive virtual library for technical communicators on the Web. http://mysite.verizon.net/resnx4g7/ http://www.greatuserdocs.com http://www.io.com/~hcexres/textbook/ - Basic online textbook on technical writing. http://en.wikiversity.org/wiki/Technical_writing -Provides a basic online course in technical writing. http://www.indexers.org.uk -Indexing user manuals http://www.g2meyer.com/gallery/ -Collection of screen captures of various online help systems. http://www.itauthor.com
5	Journals	Journal of Technical Writing and Communication Editor: Charles H. Sides

MBA
SYLLABUS: SEMESTER III
OPERATIONS MANAGEMENT - SPECIALIZATION

Semester	III	Specialization	Operations Management
Course Code	305OPE	Type	Specialization –Core
Course Title	Planning & Control of Operations		

Course Objectives:	
1	To give an overview of Planning & Control of Operations
2	To explain the role of forecasting in the operations planning process.
3	To explain the need for aggregate planning and the steps in aggregate planning.
4	To explain how is capacity planning done in organizations and what is its relationship with MRP.
5	To highlight the importance of scheduling in operations management.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Planning & Control of Operations: Need, Functions - Routing, Scheduling, shop loading and dispatch, follow up. Relations with other departments, Routing-Process layout indicating flow Chart of material from machine to machine. Dispatch in production control-documentation.	7 + 2
2	Demand Forecasting: Forecasting as a planning tool, Why do we forecast, Forecasting time horizon, Design of forecasting systems, Developing the logic of forecasting, Sources of data, Models for forecasting, Extrapolative methods using time series, Causal methods of forecasting, Accuracy of forecasts, Using the forecasting system.	7 + 2
3	Aggregate Production Planning: Planning Hierarchies in operations, Aggregate Production planning, Need for Aggregate Production planning, Alternatives for managing demand, Alternatives for managing supply, Basic strategies for aggregate production planning, Aggregate production planning methods, Master Production Scheduling.	7 + 2
4	Resources Planning: Dependent Demand Attributes, Planning a framework – the basic building blocks: Multiple levels in products, Product Structure, The Bill of Materials, Time phasing of the requirements, Determining the Lot Size, Incorporating Lead time information, Establishing the planning premises. MRP Logic, Using the MRP system, Capacity Requirements planning, Manufacturing Resources Planning (MRP II), Enterprise Resource Planning (ERP), Resource Planning in services.	7 + 2
5	Scheduling of Operations: Need for Scheduling, Scheduling – Alternative terms, Loading of machines, Scheduling Context, Scheduling of Flow Shops, Scheduling of Job Shops, Input-Output Control, Operational Control Issues in Mass production systems.	7 + 2

Learning Resources:		
1	Text Books	Operations Management: Theory and Practice by B Mahadevan, Pearson, 2 nd Edition.
2	Reference Books	Operations Management by Terry Hill, Palgrave, 2 nd Edition The fundamentals of Production Planning and Control by Stephen Chapman, Pearson, 1 st Ed.
3	Supplementary Reading Material	Operations Now by Byron Fitch, TMGH, 3 rd Edition.
4	Websites	www.apics.org
5	Journals	<p>Demand Forecasting and Smoothing Capacity Planning for products with high random demand volatility by Huang, M.-G.; Chang, P.-L.; Chou, Y.-C., International Journal of Production Research, Jun2008, Vol. 46 Issue 12</p> <p>Adaptive Exponential Smoothing versus Conventional Approaches for lumpy Demand Forecasting: case of production planning for a manufacturing line by Quintana, R.; Leung, M. T., International Journal of Production Research, Nov2007, Vol. 45 Issue 21, p4937-4957, 21p</p> <p>Forecasting Inventory: Using Demand to Determine Supply by Wilson, Eric., Journal of Business Forecasting, Fall2008, Vol. 27 Issue 3</p> <p>Forecasting Demand for Single-period products: A case study in the Apparel Industry by Mostard, Julien; Teunter, Ruud; de Koster, René., European Journal of Operational Research, May2011, Vol. 211 Issue 1</p> <p>Modeling of Multi-period Multi-product Production Planning considering Production Routes by Mahdavi, Iraj; Taghizadeh, Kaveh; Bagherpour, Morteza; Solimanpur, Maghsud., International Journal of Production Research, Mar2012, Vol. 50 Issue 6</p> <p>Forecasting Aggregate Demand: An Analytical Evaluation of Top-down versus Bottom-up Forecasting in a Production Planning framework by Widiarta, Handik; Viswanathan, S.; Piplani, Rajesh. International Journal of Production Economics, Mar2009, Vol. 118 Issue 1</p> <p>Making MRP Work by Diehl, Gregory W.; Armstrong, Aaron J.. Industrial Engineer: IE, Nov2011, Vol. 43 Issue 11</p>

Semester	III	Specialization	Operations Management
Course Code	306OPE	Type	Specialization –Core
Course Title	Inventory Management		

Course Objectives:	
1	To give an overview of various aspects of inventory.
2	To explain the impact of types of inventory costs on inventory management decisions.
3	To explain the principles of JIT

Syllabus:

Unit Number	Contents	Number of Sessions
1	Elements of Inventory Management: Inventory concepts, Pressures for Low Inventory, Pressures for High Inventory, Role of inventory in Operations, Types of inventory – seasonal, decoupling, cyclic, pipeline, Safety stock. Inventory costs – carrying costs, ordering costs, shortage costs.	7 + 2
2	Inventory Control systems: Continuous Review (Q) systems, Periodic Review (P) systems, ABC Classification system, Issues in the P and Q systems of inventory control.	7 + 2
3	Economic Order Quantity Models: The Basic EOQ Model, Production Quantity Model, Computer Solution of EOQ model with MS Excel, Quantity Discounts, Computer Solution of Quantity Discounts model with MS Excel, Reorder Point, Safety Stocks, Service Level, Reorder point with variable demand, Computer Solution of Reorder point with MS Excel, Order quantity for periodic inventory system, Order quantity with variable demand, Computer Solution of fixed period model with MS Excel	7 + 2
4	Just-In-Time: Principles of just-in-time, Core logic of JIT, Main features for stocks, Achieving just-in-time operations, Other effects of JIT, Benefits and disadvantages of JIT, Comparison with other methods of inventory management. KANBAN as a control tool. Vendor managed inventory.	7 + 2
5	Make Or Buy Decisions: Factors influencing Make Or Buy Decisions-cost, quality, capacity core v/s noncore, management strategy. Evaluation of performance of Materials function: cost, delivery, quality, inventory turnover ratio methodology of evaluation, Use of ratios and analysis like FSN: Fast slow, Nonmoving, HML-High Medium, Low, XYZ. Materials Management In JIT Environment:	7 + 2

Learning Resources:		
1	Text Books	Operations Management: Theory and Practice by B Mahadevan, Pearson, 2 nd Edition. Operations Management-Process and Value Chains by Krajewski, Ritzman, Malhotra, Pearson, 8 th Edition.
2	Reference Books	Operations Management: Quality and Competitiveness in a Global Environment by Russell and Taylor, Wiley India. Introduction to Materials Management by J.R.Tony and Arnold.
3	Supplementary Reading Material	Inventory Control and Management by Donald Waters, Wiley Student Edition, 2 nd Ed. Just-in-Time Manufacturing by Korgaonker, Macmillan Essentials of Inventory Management by Max Muller, JAICO Publishing, 1 st Edition.
4	Websites	www.inventorymanagementreview.org www.effectiveinventory.com
5	Journals	Material Management Review- Institute of Material Management Production & Inventory Management - APICS

Semester	III	Specialization	Operations Management
Course Code	307OPE	Type	Subject - Elective
Course Title	Productivity Management		

Course Objectives:

1	To understand and appreciate significance of productivity management
2	To study various productivity management methods
3	To learn applicability of popular productivity management tools

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: Importance and significance of productivity, Productivity concepts – Macro and Micro factors of productivity, productivity from product and service perspective, different inputs and productivity measures, Various ratios related to finance, material and service.	3+1
2	Value Analysis and Value Engineering: Concept of Cost, Price and Value, Role in Productivity, Procedure – Application and productivity benefit model.	3+1
3	Work Study: Importance of work study – Method Study and Work Measurement – Pioneers of Performance Measurement Method Study: Need for Method Study – Procedure of Method Study –Process Flow charts, Man machine diagrams ,Principles of Motion Economy	6+1
4	Work Measurement: Techniques of Work Measurement including Estimating, Stopwatch Time Study, Predetermined Time Standards, Synthetic Estimates of Work, Times, Activity Sampling. Computation of Standard Time – Elements – Types of Elements – Performance Rating – Allowances – Need for Allowances – Types of Allowances	8+1
5	Advanced Methods of Productivity and service level enhancements: Overview of JIT, Lean, 5S, TPM, BPR, Six Sigma, World Class manufacturing, Use of Technology in productivity and service enhancements: ITeS, CAD, CAM, CIM, CMMI.	5+1

Learning Resources:

1	Text Books	Productivity Measurement for Business Excellence by Prem Vrat, G.D. Sardana, B.S. Sahay, Narosa Publishing House. Operations Management for Competitive Advantage by Richard B Chase, Jacobs, Aquilano, Agarwal, TMGH, 11 th Edition.
2	Reference Books	Introduction to Work Study Edited by Geirge Kanawaty, Universal Publishing, 4th Edition.
3	Supplementary Reading Material	Production and Operations Management by S.N.Chary, TMGH, 4th Edition
4	Websites	www.npcindia.org
5	Journals	International Journal of Operations & Production Management International Journal of Business Performance Management Journal of Applied Economics International Journal of Management Journal of Management Information Systems

Semester	III	Specialization	Operations Management
Course Code	308OPE	Type	Subject - Elective
Course Title	Maintenance Management		

Course Objectives:	
1	To understand importance and role of Maintenance Management
2	To acquaint with various alternatives of Maintenance Management
3	To understand use of decision tools for Maintenance Management

Syllabus:		
Unit Number	Contents	Number of Sessions
1	Need and Importance of Maintenance Management: Maintenance versus Aggregate production planning, Maintenance versus Scheduling, Maintenance versus Quality Control, Equipment Life Cycle, Measures of Maintenance Performance – Mean Time Between Failure (MTBF) and Mean Time to Repair (MTTR) , Availability.	5 + 1
2	Requirements for Effective Maintenance Management: Catalogues of Equipment, Maintenance Policy, Maintenance Manual, Troubleshooting Mechanisms, Fault – tree Analysis, Maintenance Information Systems.	5 + 1
3	Maintenance Alternatives: Routine Inspection, Preventive Maintenance, Predictive Maintenance, Breakdown Maintenance, Planned Shutdowns / Major Overhaul, Equipment Replacement.	5 + 1
4	Decision tools for Maintenance Management: Optimum Preventive maintenance policy, group replacement policy, equipment replacement decision, Spare parts management: Types of spares, Vital Essential and Desirable, Inventory planning for spares.	5 + 1
5	Total Productive Maintenance: TPM Overall equipment effectiveness , TPM Methodology , TPM implementation, Technology in maintenance	5 + 1

Learning Resources:		
1	Text Books	Operations Management : Theory and Practice by Mahadevan, 2 nd Edition, TMGH Operations Management by Norman Gaither & Greg Frazier, Cengage Learning, India Ed.
2	Reference Books	Production & Operations Management by Alan Muhlemann, John Oakland, Keith Lockyer, Macmillan India Ltd.
3	Supplementary Reading Material	Operations Management by Norman Gaither
4	Websites	www.lifetime-reliability.com www.authorstream.com
5	Journals	Empirical Analysis of Maintenance Performance Measurement in Belgian Industries by Muchiri, Peter N.; Pintelon, Liliane; Martin, Harry; De Meyer, Anne-Marie., International Journal of Production Research. Oct2010, Vol. 48 Issue 20, p5905-5924 Development of Maintenance Function Performance Measurement Framework and Indicators by Muchiri, Peter; Pintelon, Liliane; Gelders, Ludo; Martin, Harry., International Journal of Production Economics. May2011, Vol. 131 Issue 1, p295-302 Measuring Maintenance Performance: A Holistic Approach by Tsang, Albert H. C.; Jardine, Andrew K. S.; Kolodny, Harvey. International Journal of Operations & Production Management., 1999, Vol. 19 Issue 7, p691-715 Effect of Maintenance Policies on the Just-In-Time Production System by Abdulnour, G.; Dudek, R.A.; Smith, M.L., International Journal of Production Research. Feb1995, Vol. 33 Issue 2, p565. Effective Component Importance Analysis for the Maintenance of Systems With Common-Cause Failures by Liudong Xing; Amari, Suprasad V., International Journal of Reliability, Quality & Safety Engineering. Oct2007, Vol. 14 Issue 5, p459-478. Failure Reduction in Manufacturing Systems through the Risk Management Approach and the Development of a Reactive Maintenance Model by Karuppuswamy, P.; Sundararaj, G.; Devadasan, S. R.; Elangovan, D.; Savadamuthu, L., International Journal of Risk Assessment & Management. 2006, Vol. 6 Issue 4/5/6, p545-564. Plant-Level Maintenance Decision Support System for Throughput Improvement by Li, Lin; Ambani, Saumil; Ni, Jun., International Journal of Production Research. Dec2009, Vol. 47 Issue 24, p7047-7061. Measuring Efficiency of Total Productive Maintenance (TPM): A Three-Stage Data Envelopment Analysis (DEA) Approach by Jeon, Jeonghwan; Kim, Chulhyun; Lee, Hakyeon., Total Quality Management & Business Excellence. Aug2011, Vol. 22 Issue 8, p911-924. Relationship between Total Productive Maintenance and Performance by Brah, S. A.; Chong, W.K., International Journal of Production Research. 6/15/2004, Vol. 42 Issue 12, p2383-2401. Justification of Total Productive Maintenance Initiatives In Indian Manufacturing Industry for Achieving Core Competitiveness by I.P.S. Ahuja; J.S. Khamba. Journal of Manufacturing Technology Management. Jun2008, Vol. 19 Issue 5, p645-669. Operations and Maintenance Practices and Their Impact on Power Plant Performance by Shyong Wai Foon; Terziovski, Milé., Academy of Management Annual Meeting Proceedings. 2008, p1-6.

Semester	III	Specialization	Operations Management
Course Code	309OPE	Type	Subject - Elective
Course Title	Facilities Planning		

Course Objectives:	
1	To emphasize the importance of facilities planning in view of the size of investment.
2	To make the student understand the linkages of facilities planning with other activities
3	To underline the importance of facilities location

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Introduction to Facilities Planning: Facilities planning defined, Significance of Facilities Planning, Objectives of Facilities Planning, Long Range Capacity Planning, Facilities Planning process, Strategic Facilities Planning, Developing Facilities Planning Strategies, Examples of Inadequate Planning. Impact of Environmental Issues on Facilities Planning.</p> <p>Product, Process and Schedule Design: Introduction, Product Design, Process Design, Schedule Design, Facilities Design.</p>	5 + 1
2	<p>Logistics and Facilities Location: Logistics, Decisions related to Logistics, Issues in Facilities location – Market related factors, Cost-related factors, Regulatory and Policy Issues, Location Planning Methods – Location Factor rating, Centre-of-gravity method, Load-distance method, Transportation Model. Locating Service Facilities, Relocation aspects,</p>	5 + 1
3	<p>Layout Planning: Concept of Layout, Basic Layout Types, Layout Procedures, Algorithmic approach, Department Shapes and Aisles, Multi-floor facility layout, Commercial Facility Layout, Impact of change, Developing alternative layouts. Introduction to ALDEP and CORELAP.</p> <p>Facilities design for various Facilities Functions: Warehouse operations – Functions of Warehouse, Receiving and Shipping Operations, Dock Locations, Storage Operations, Order Picking Operations.</p>	6 + 1
4	<p>Service Facilities Layout: Nature of Services, Operational Classification of services, Structuring the service encounter, Service blueprinting and fail-safing, Role of floor manager in service sectors such as – Hospital, Hotel, Airlines and airports.</p>	4 + 1
5	<p>Flow Space and Activity Relationships: Departmental Planning, Activity Relationships, Flow Patterns, Flow Planning, Measuring Flow, Space Requirements.</p> <p>Personnel Requirements: Employee-Facility Interface, Restrooms, Food Services, Health Services, Barrier-Free Compliance, Office Facility Planning.</p> <p>Material Handling: Scope and Definition of Material Handling, Material Handling Principles, Designing Material Handling Systems, Unit Load design, Material Handling Equipment, Estimating Material Handling costs, Safety Considerations.</p>	5 + 1

Learning Resources:		
1	Text Books	Facilities Planning by Tompkins, White, Bozer and Tanchoco, Wiley India 3 rd Edition. Operations Management – Theory and Practice by B Mahadevan, Pearson, 2 nd Edition.
2	Reference Books	Operations and Supply Management by Chase, Shankar, Jacobs and Aquilano, TMGH, 12 th Edition.
3	Supplementary Reading Material	Operations Management by Terry Hill, Palgrave, 2 nd Edition. Operations Management – Quality and Competitiveness in a Global Environment by Russell and Taylor, Wiley India, 5 th Edition
4	Websites	http://www.youtube.com/watch?v=zkKff7iLph4 http://www.youtube.com/watch?v=zkKff7iLph4&feature=results_main&playnext=1&list=PL7768A320362EA93D
5	Journals	Ergo-Centric Facilities, Dohrmann, Mark. Industrial Engineer: IE, Jun2009, Vol. 41 Issue 6 Organization of facilities management in relation to core business, Jensen, Per Anker. Journal of Facilities Management, 2011, Vol. 9 Issue 2 5 facility planning mistakes (and how to avoid them), Weitzner, Wendy M., May2006, Vol. 60 Issue 5 Facilities planning for greener hospitals by Scheeres, D. Junell. Industrial Engineer: IE, Mar2012, Vol. 44 Issue 3 A Conceptual model for barrier free facilities planning, Soares, Marcelo M.; Jacobs, Karen; Bittencourt, R.S.; de M.Guimarães, L.B. Work, 2012, Vol. 41

Semester	III	Specialization	Supply Chain Management
Course Code	310OPE	Type	Subject - Elective
Course Title	Manufacturing Resource Planning		

Course Objectives:	
1	To understand role and importance of Manufacturing Resource Planning (MRP II)
2	To know the inputs, processing and outputs of MRP II

Syllabus:

Unit Number	Contents	Number of Sessions
1	Master Production Scheduling (MPS): Introduction to MPS, Need, objectives & functions of MPS, Role of MPS in management- as a "Link between strategic and tactical planning", Logical flow of materials in different manufacturing scenarios (VAT Analysis), Planning horizons and Time periods (Buckets) of MPS, Order management in MPS, Safety and hedges, Projected Available Balance (PAB) and Available To Promise (ATP), Time Fences & effect of changing MPS decisions on time fences, Final Assembly Schedule (FAS).	5 + 1
2	Material Requirements Planning (MRP-I): Introduction to MRP-I, Roles & functions of MRP-I, Independent & Dependent Demand, Bill of Materials (BOM), Types of BOM, Numerical Problems on BOM, Lot-sizing, MRP-I as Input & Output Process, MRP-I Spreadsheet problem, Pegging reports & where-used files.	5 + 1
3	Capacity Management: Introduction to 'Capacity' and 'Capacity management', Capacity Expansion Strategies, Capacity Planning levels vis-à-vis Manufacturing planning levels, Capacity measurement, Rough Cut Capacity Planning (RCCP), Capacity Requirement Planning (CRP), Shop Calendar, Scheduling strategies- Backward & Forward scheduling, Infinite & Finite loading, Production smoothing policies.	5 + 1
4	Manufacturing Resource Planning (MRP-II)- (Module-I): Introduction to MRP-II, Roles & functions of MRP-II, MRP-II framework, Information flow in MRP-II, Relation of MRP-II with Demand management and Capacity management, Manufacturing calendar.	5 + 1
5	Manufacturing Resource Planning (MRP-II)- (Module-II): Transition from MRP-I to MRP-II, Closed loop MRP, Comparison between MRP-I and MRP-II, Plant & supplier scheduling, Problems associated with MRP-II, Benefits and prospects of MRP-II, Compatibility between MRP-II & Just-in-Time (JIT).	5 + 1

Learning Resources:		
1	Text Books	Manufacturing Resource Planning (MRP II) with introduction to ERP, SCM and CRM by Khalid Sheikh, TMGH, 1 st Edition Operations Management – Theory & Practice by B. Mahadevan, Pearson Pub., 2 nd Edition
2	Reference Books	Plossl, George, Orlicky's Material Requirement Planning, McGraw-Hill, Inc, 2 nd Edition, 1994
3	Supplementary Reading Material	Operations management by William J, Stevenson, Tata McGraw Hill Companies – 9 th Edition
4	Websites	www.apics.org/
5	Journals	Materials and Capacity Requirements Planning: (APICS) CPIM Certification Review Course, Student Guide by John, Ralph E St., APICS, Revision 3, 1993 Managing in an Age of Modularity by Baldwin, Carliss Y and Kim B Clark, Harvard Business Review, Vol. 75, No. 5, September-October 1997 Assemble to Order Manufacturing: Implications for Materials Management by Wemmerlov, U, Journal of Operations Management, Vol. 4,(4), 1984 Shop floor Control edited by Wassweiler, William R in James H Greene (Editor), Production and Inventory Control Handbook, 3 rd Edition, McGraw-Hill, 1997

Semester	III	Specialization	Operations Management
Course Code	311OPE	Type	Subject - Elective
Course Title	Technology Management		

Course Objectives:

1	To highlight the role of technology and innovation as drivers of value and competitive advantage.
2	To provide conceptual foundations in managing innovation and technology.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction & Importance of Technology Management: Technology - Definition and Characteristics , Technology trends, Market Based and Resource Based view, Impact of technology on business, Forms of technological change, Concept and significance of management of technology, Technological environment-meaning, importance : recent developments in Technological environment - Globalization, Time Compression, Technology integration, Induced & Autonomous changes in the Technological environment, Competitive advantages through new technologies.	5 + 1
2	Innovation Management: Concept of Innovation; invention and creativity: role and relationship with innovation, Drivers and process of innovation– firm & technology level, Classification of innovation management of innovation. Technology Evolution – S curve of technology evolution, Technology progression, Technology change agents, Evolutionary characteristics of technological change, uncertainty and technological insularity.	5 + 1
3	Technology Sources and Research & Development Management: Sources of technology, Process of new product development; Reasons of failures of hi-tech products: Strategy to avoid product failure in market. Process of bringing hi-tech product from development to market: Managing R& D Organization –issues and recent trends. Linkage between technology, development and competition, Significance of managing Intellectual Property Rights in context of technology management, strategic issues in managing IPR.	5 + 1
4	Technological Forecasting: Meaning of Technology forecasting, uses of Technology forecasting, Technology forecasting techniques : Exploratory and Normative: technique; Process and application of techniques like Delphi, Growth Curves, S- curve, Pearl Curve, Gompertz curve : Relevance Tree, Morphological Analysis, Mission Flow Diagram Technology strategy: concept, key principles, framework for formulating technology strategy, Linkage of technology strategy with business strategy, Issues in technology strategy.	5 + 1
5	Technology and Organizational Issues: Technological change and Industrial Relations, Technology Assessment and Environmental Impact Analysis Integration of People and Technology, Organizational and Psychological Factors, Organizational Structure.	5 + 1

Learning Resources:		
1	Text Books	Strategic Technology Management by Betz. F. , McGraw-Hill Managing Technology and Innovation for Competitive Advantage by V K Narayanan, Pearson Education Asia Management of Technology by Tarek Khalli , McGraw-Hill Strategic Management of Technological Innovation by Schilling , McGraw-Hill, 2 nd Edition
2	Reference Books	Strategic Management of Technology & Innovation by Burgelman, R.A., M.A. Madique and S.C. Wheelwright , Irwin Handbook Of Technology Management by Gaynor, McGraw Hill Managing New Technology Development by Souder, W.C. and C.M. Crawford, McGraw-Hill
3	Supplementary Reading Material	Managing Technological Innovation by Twiss, B., Pitman Bringing New Technology to Market by Kathleen R Allen, Prentice Hall India Management of New Technologies for Global Competitiveness by Christian N Madu, Jaico Publishing House
4	Websites	http://www.tifac.org.in/ http://ec.europa.eu/enterprise/policies/innovation/index_en.htm
5	Journals	The use of Manufacturing Technologies - An External Influence Perspective by Das, Ajay; Nair, Anand., International Journal of Production Research, Sep 2010, Vol. 48 Issue 17 Research on Technical Strategy for New Product Development based on TRIZ Evolution Theory by Fu-ying Zhang; Yan-shen Xu., International Journal of Product Development, 2007, Vol. 4 Issue ½ A Framework for the Assessment of an Organization's Innovation Excellence by Dervitsiotis, Kostas N., Total Quality Management & Business Excellence, Sep 2010, Vol. 21 Issue 9

Semester	III	Specialization	Operations Management
Course Code	312OPE	Type	Subject - Elective
Course Title	Six Sigma		

Course Objectives:	
1	To provide a comprehensive understanding of six sigma
2	To introduce the six sigma methodology and philosophy
3	To learn how to manage change and sustain benefits
4	To learn how to listen and map customer requirements
5	To start executing and delivering project

Syllabus:		
Unit Number	Contents	Number of Sessions
1	<p>Enterprise-wide Deployment</p> <p>1.1 Six Sigma and Lean : Brief history of performance initiatives- Quality Control, TQM, Cost of Quality, Customer quality Management, SPC, Reengineering, Six Sigma, Theory of Constraint, Lean manufacturing.</p> <p>1.2 Business Process Management : Introduction to Six Sigma-As a metric, As a methodology, As a management System. Six sigma Evolution and approach Lean as a Business Management Strategy, Key elements of lean. Types of lean initiatives, Implementing lean initiatives</p>	5 + 1
2	<p>DMAIC model for implementing Six Sigma.</p> <p>2.1 Define: Project Selection, Developing the team, DMAIC & DMADV, Deliverables, Tollgate Questions</p> <p>2.2 Measure: Determining X variables, Cause and Effect Diagram & Matrix, Overview of MSA, Data Collection Plan – Forms, Baselining the y data, DPMO, Capability Indices, COPQ, Yield, Tollgate Questions</p> <p>2.3 Analyze: Tools for identifying Root Causes: Histogram, Boxplot, Scatter Plot, Matrix Plot, DotPlot, Run Chart, Multi-Vari Chart, 5 Why's</p> <p>2.4 Improve: Generating Solutions, Random Simulation, Six Thinking Hats, Mind Mapping, Challenge Assumptions, Decision Making Tools for Selecting Solutions – Pairwise Ranking, Solution Matrix, Force Field Analysis, Costs and Benefits, Pilot Plan, Potential Problem Analysis – Mistake Proofing, Risk Assessment Matrix and Control Assessment Matrix, FMEA, Contingency Plan, Verification Plan, Tollgate Questions</p> <p>2.5 Control: Solution Planning, Process Control Plan, Review Meetings, Updated flowcharts & procedures, Control Charts, Out Of Control Action Plan, Project Conclusion Activities</p>	7 + 1

3	Six Sigma Impact measurement Financial and Performance measurement: Lack of Clear Goals and Metrics linked to Measurable Business Goals, Mismatches between Traditional Accounting and Improvement Campaigns. Metrics That Impact – Revenue Growth, Cost Savings, Productivity Improvement, Reduced Cost of Poor Quality, Cash Flow Improvement, Faster product / service cycle times, Freed up engineering and /or sales / service time, Freed up other indirect time, Cost avoidance savings. Seven Elements of Six Sigma Scorecard	5 + 1
4	Six Sigma in non-manufacturing environments: MSA in the DMAIC Cycle. MSA Psychology. Why Non-Manufacturing Processes are Different, MSA Repeatability & Reproducibility (R&R) Studies. Gauge R & R. Comparison of MSA Acceptance Criteria	5 + 1
5	Projects in Six Sigma-Use of DMAIC Cycle	3 + 1

Learning Resources:

1	Text Books	The Six Sigma Black Belt Handbook by MacCarty, Daniels, Bremer and Gupta, TMGH, 2010 Edition Juran Institute's Six Sigma Breakthrough and Beyond by De Feo and Barnard, TMGH. What is Six Sigma? by Peter Pande, TMGH Six Sigma Management by Blashka, TMGH All about Six Sigma by Warren Brussee, TMGH.
2	Reference Books	TPS-Lean Six Sigma by Hubert Ramprasad, Sara Books Pvt.Ltd.
3	Supplementary Reading Material	The Certified Six Sigma Black Belt Hand Book, Donald Benbow, Pearson Publication Achieving Business Excellence by Pravin Rajpal, Om Books International, India.
4	Websites	http://asq.org
5	Journals	What , Why and How: The importance of statistical thinking for SixSigma , Krishnamoorth, K. S., Industrial Engineer: IE, Oct 2011, Vol. 43, Issue 10 In pursuit of implementation patterns: the context of Lean and SixSigma, Shah, R.; Chandrasekaran, A.; Linderman, K.. International Journal of Production Research, Dec2008, Vol. 46 Issue 23 Critical analysis of SixSigma implementation , Moosa, Kamran; Sajid, Ali. Total Quality Management & Business Excellence, Jul2010, Vol. 21 Issue 7

Semester	III	Specialization	Operations Management
Course Code	313OPE	Type	Subject - Elective
Course Title	Designing Operations Systems		

Course Objectives:	
1	To give an overview of the various process options in Manufacturing and Services.
2	To give insights into factors that influence process choice.
3	To impart fundamental concepts in Job Design and Work Measurement.

Syllabus:		
Unit Number	Contents	Number of Sessions
1	Process Analysis: Process Analysis, Process Flowcharting, Types of Processes, Measuring Process Performance, Examples of Process Analysis, Process Throughput Time Reduction	5 + 1
2	Job Design & Work Measurement: Job Design Decisions, Behavioural Considerations in Job Design – Degree of Labour Specialization, Job Enrichment, Sociotechnical Systems, Work Measurement and Standards – Time Study, Work Sampling, Comparison	5 + 1
3	Designing Manufacturing Processes: Factors involved in making products, Types of Manufacturing processes – Project, Jobbing, Batch, Line & Continuous Processing. Product Categories & Manufacturing Processes- Relationship & Choices. Implications reflected in manufacturing process alternatives. Hybrid Processes – Batch Layout, Cellular Layout	5 + 1
4	Designing Service Processes I: Characteristics of Service Operations, Factors involved in delivering services – Nature of technology / people mix, Nature of service, Complexity of service, Volumes. Overall Design of Service Delivery System. Service Blueprinting and fail-safing. Service Delivery System – detailed design – Phase I: back office or front office, Phase II: The delivery system (Non repeat services, Repeat services, single step or multi step processes).	5 + 1
5	Designing Service Processes II: Three contrasting Service Designs – Production line approach, Self-service approach, Personal attention approach. Managing customer introduced variability, Applying behavioral Science to Service Encounters.	5 + 1

Learning Resources:		
1	Text Books	Operations & Supply Management by Chase, Shankar, Jacobs, TMGH, 12 th Edition. Operations Management – Terry Hill, Palgrave Macmillan, 2 nd Edition.
2	Reference Books	Operations Management by Krajewski, Ritzman, Malhotra, Pearson, 8 th Edition.
3	Supplementary Reading Material	Achieving Business Excellence by Pravin Rajpal, Om Books International, India.
4	Websites	http://www.servicedesigntools.org/tools/35
5	Journals	How important is the batch splitting activity in scheduling of virtual manufacturing cells (VMCs)? by Kesen, Saadettin Erhan; Gungor, Zula., International Journal of Production Research, Mar2011, Vol. 49 Issue 6 The method in work design. Some recommendations based on experience obtained in job design byde Jong, J. R. International Journal of Production Research, Jan1978, Vol. 16 Issue 1 Service delivery system design: characteristics and contingencies by Ponsignon, F.; Smart, P. A.; Maull, R. S. International Journal of Operations & Production Management, 2011, Vol. 31 Issue 3 Structuring front office and back office work in service delivery systemsby Zomerdijk, Leonieke G.; Vries, Jan de. International Journal of Operations & Production Management, 2007, Vol. 27 Issue 1 Impact of sequence of operations and layout of cells in cellular manufacturing by Logendran, Rasaratnam., International Journal of Production Research, Feb1991, Vol. 29 Issue 2 Customer-Introduced Variability in Service Operations by Frei, Frances X. Harvard Business School Cases, Mar 01, 2006

Semester	III	Specialization	Operations Management
Course Code	314OPE	Type	Subject - Elective
Course Title	Toyota Production System		

Course Objectives:

1	To explain the management principles and business philosophy behind Toyota's worldwide reputation for quality and reliability.
2	To demonstrate how managers in every industry can improve business processes by: Eliminating wasted time and resources Building quality into workplace systems Finding low-cost but reliable alternatives to expensive new technology Turning every employee into a quality control inspector

Syllabus:

Unit Number	Contents	Number of Sessions
1	Operational Excellence as a Strategic Weapon: 4 P model of the Toyota Way. Toyota Production System (TPS) and Lean Production. Development of TPS & One Piece Flow. Waste Elimination. Traditional Process Improvement v/s Lean Improvement. TPS House	5 + 1
2	14 Toyota Way Principles: 1. Base Your Management Decisions on Long Term Philosophy 2. Create Continuous Process Flow 3. Use 'Pull' Systems to avoid Overproduction 4. Level out the Workload (Heijunka)	5 + 1
3	14 Toyota Way Principles: 5. Build a Culture of Stopping the Process to Build in Quality Right the First Time 6. Standardized Tasks for Continuous Improvement and Employee Empowerment 7. Use Visual Control so No Problems are hidden 8. Use only Reliable, Thoroughly Tested Technology	5 + 1
4	14 Toyota Way Principles: 9. Grow Leaders who thoroughly understand the Work 10. Develop Exceptional People and Teams 11. Respect Your Extended Network of Partners and Suppliers	5 + 1
5	14 Toyota Way Principles: 12. Go and See for yourself to thoroughly understand the Situation (Genchi Genbutsu) 13. Consensus based slow decision making but rapid implementation 14. Become a learning organization through relentless reflection (Hansei) and Continuous Improvement (Kaizen)	5 + 1

Learning Resources:		
1	Text Books	The Toyota Way by Jeffrey Liker, Tata McGraw Hill, 2004 Edition.
2	Reference Books	The Machine that Changed the World by Womack, Jones & Roos, Simon and Schuster UK
3	Supplementary Reading Material	The Toyota Way Fieldbook by Jeffrey Liker, David Meier, TMH, 2008 Reprint
4	Websites	http://www.toyotawayacademy.com/index.php
5	Journals	Empowering Kanban through TPS-principles - An empirical analysis of the Toyota Production System by Thun, Jorn-Henrik; Druke, Martin; Grubner, Andre. International Journal of Production Research, Dec2010, Vol. 48 Issue 23 The Toyota Production System and Art: Making highly customized and creative products the Toyota way by Lander, E.; Liker, J. K., International Journal of Production Research, Aug2007, Vol. 45 Issue 16 The Toyota Way in Services: The Case of Lean Product Development by Liker, Jeffrey K.; Morgan, James M.. Academy of Management Perspectives, May2006, Vol. 20 Issue 2 Exploiting the DNA of the Toyota Production System by Towill, D. R., International Journal of Production Research, Aug2007, Vol. 45 Issue 16 Handshakes around the world [Toyota production system by Towill, Denis R., Manufacturing Engineer, Feb/Mar2006, Vol. 85 Issue 1

Semester	III	Specialization	Operations
Course Code	315OPE	Type	Subject - Elective
Course Title	Project Management		

Course Objectives:	
1	To provide the students with a holistic, integrative view of Project Management.
2	To highlight the role of projects in modern day business organizations.
3	To sensitize the students to complexities of project management.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Overview of Project Management</p> <p>Basics of Project Management: Concept of Project, Attributes of a Project, Importance of Project Management, Project Management Process, Project Lifecycle, Project Stakeholders, Project Management Structures, Choosing Appropriate Project Management Structure, Implications of Organizational Culture, Main Causes of Project Failure.</p> <p>Project Definition: Defining Scope, Establishing Priorities, Creating the Work Breakdown Structure (WBS), integrating the WBS with the organization, Coding the WBS for information system, Project Roll Up, Process Breakdown Structure, Responsibility Matrices.</p>	5 + 1
2	<p>Project Planning</p> <p>Estimating Project Times and Costs: Factors Influencing Quality of Estimates, Estimation Guidelines for Time, Costs and resources, Macro versus Micro Estimating, Methods for Estimating Project Times and Costs, Level of detail, Developing Budgets, Types of Costs, Refining estimates and contingency funds.</p> <p>Developing a Project Plan: Developing the Project Network, From Work Package to Network, Constructing a Project Network, Activity-on-Node Fundamentals, Network Computation process, Using the Forward and Backward pass information, Level of Detail for activities, Extended Network techniques.</p>	5 + 1
3	<p>Project Scheduling & Risk Management</p> <p>Scheduling Resources and Reducing Project Duration: Types of Project Constraints, Classification of Scheduling Problem, Resource Allocation Methods, Splitting, Multitasking, Benefits of scheduling resources, Assigning Project work, Multi Project resource Schedules, Rationale for reducing project duration, Options for accelerating Project Completion, Concept and construction of a Project Cost – Duration Graph, Practical considerations.</p> <p>Managing Risk: Risk Management process – Risk Identification, Risk Assessment, Risk Response Development, Contingency Planning, Risk Response Control, Change Control Management.</p>	5 + 1

4	<p>Project Organization:</p> <p>The Project Manager: Role and Responsibilities of the project Manager, Planning, Organizing, Controlling, Skills of the Project Manager – Leadership Abilities, Coaching & mentoring Abilities, Communication Skills, Interpersonal Skills, Ability to Handle Stress, Problem Solving Skills, Time Management Skills, Delegation, Management of Change.</p> <p>Managing Project Teams: The five stage team development model, Situational factors affecting team development, Team effectiveness, Conflict in projects, Sources of Conflict, Handling Conflict. Managing Virtual Project teams, Project team pitfalls.</p>	5 + 1
5	<p>Project Evaluation</p> <p>Progress and Performance Management and Evaluation: Structure of a Project Monitoring Information System, Project Control Process, Monitoring Time Performance, Need for an Integrated Information System, Developing a status report and index to monitor progress, Forecasting final project cost, Other control issues.</p> <p>Project Audit and Closure: Project Audit, Project Audit Process, Project Closure, Team, Team member and Project Manager Evaluations.</p>	5 + 1

Learning Resources:

1	Text Books	Project Management – The Managerial Process, Clifford Gray and Erik Larson, TMGH, 3 rd Edition. Effective Project Management, Clements and Gido, Thomson – India Edition, 1 st Indian Reprint.
2	Reference Books	The Practice of Project Management – A guide to business focused approach, Frigenti and Comminos, Kogan Page, 1 st South Asian Edition
3	Supplementary Reading Material	Project Management by Mantel, Meredith, Shafer, Sutton and Gopalan, Wiley India, 1 st Edition.
4	Websites	http://www.pmi.org.in/ http://www.infogoal.com/pmc/pmchome.htm
5	Journals	Journal of Project Management-Global Research Publication International Journal of Project Management-Elsevier Science

Semester	III	Specialization	Operations Management
Course Code	316OPE	Type	Subject - Elective
Course Title	Theory of Constraints		

Course Objectives:

1	To imbibe in the students the TOC thinking process.
2	To provide insights into managing a business when there are constraints and resolving those by logical thinking.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Thinking Process: Introduction to Theory of Constraints (TOC), Tools of TOC, Where is TOC applicable? What is a constraint, TOC's thinking process and Human Being, Terminology used in the thinking process, Steps to implement in the thinking process, Current Reality Tree, Conflict Resolution Diagram, Future Reality Tree, Prerequisite Tree, Transition Tree, Three Cloud Method.	5 + 1
2	2.1 Finance and Measures: Economic Decisions, TOC and Product Costing, Economic Decisions using TOC Costing. 2.2 Project Management: Phases of Project Management, Common problems in Project Environment, Critical Chain project Management – A TOC approach.	5 + 1
3	Drum-Buffer-Rope Solution: Introduction, The Drum – The MPS of the Capacity Constraint Resource, Implementing Drum-Buffer-Rope, Implementing Drum-Buffer-Rope on the shop floor, MPS using Drum-Buffer-Rope Scheduling method.	5 + 1
4	Theory of Constraints in Supply Chain Management: Introduction, TOC in distribution Solution, Drum-Buffer-Rope in distribution	5 + 1
5	Cases: Cases in application of TOC thinking process, TOC in Manufacturing,	5 + 1

Learning Resources:

1	Text Books	Theory of Constraints by S K Mukhopadhyay, Jaico Books. The Goal by E M Goldratt and Cox J, Great Barrington, North River
2	Reference Books	What is the thing called Theory of Constraints? by E M Goldratt, Great Barrington, North River It's Not Luck by E M Goldratt, Great Barrington, North River
3	Supplementary Reading Material	Essays on Theory of Constraints by E M Goldratt, Great Barrington, North River Critical Chain by E M Goldratt, Great Barrington, North River
4	Websites	http://www.goldratt.com/ http://www.scienceofbusiness.com/home/what-is-theory-of-constraints-toc/ http://www.tocico.org/

5	Journals	<p>A Tutorial on Project Management from a Theory of Constraints Perspective by Blackstone, John H.; Cox, James F.; Schleier, John G., International Journal of Production Research, Dec2009, Vol. 47 Issue 24</p> <p>Theory of Constraints at Uni Co: Analyzing The Goal as a fictional case study by Tibben-Lembke, Ronald S., International Journal of Production Research, Apr2009, Vol. 47 Issue 7</p> <p>Implementing Theory of Constraints in a traditional Japanese Manufacturing Environment: The case of Hitachi Tool Engineering by Umble, M.; Murakami, S., International Journal of Production Research, 5/15/2006, Vol. 44 Issue 10</p> <p>Determination of buffer sizes for drum-buffer-rope (DBR)-controlled production systems by Ye, T.; Han, W., International Journal of Production Research, May2008, Vol. 46 Issue 10</p> <p>Modified drum-buffer-rope scheduling mechanism for a non-identical parallel machine flow shop with processing-time variation by Sirikrai, V.; Yenradee, P., International Journal of Production Research, 9/1/2006, Vol. 44 Issue 17</p> <p>Comparisons between drum-buffer-rope and Material Requirements Planning: a case study by Steele, Daniel C.; Philipoom, Patrick R.; Malhotra, Manoj K.; Fry, Timothy D., International Journal of Production Research, 8/1/2005, Vol. 43 Issue 15</p> <p>Order review/release and lot splitting in drum-buffer-rope by Russell, G. R.; Fry, T. D., International Journal of Production Research, Mar 1997, Vol. 35 Issue 3</p> <p>Scheduling using drum-buffer-rope in a remanufacturing environment by Guide, V.D.R., International Journal of Production Research, Apr96, Vol. 34 Issue 4</p> <p>Using Drum-Buffer-Rope Scheduling Rather Than Just-In-Time Production by Huff, Patricia. Management Accounting Quarterly, Winter2001, Vol. 2 Issue 2</p>
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MBA SYLLABUS: SEMESTER III
HUMAN RESOURCE MANAGEMENT - SPECIALIZATION

University of Pune

Semester	III	Specialization	HRM
Course Code	305HR	Type	Specialization - Core
Course Title	Labour Laws		

Course Objectives:

1	To make the students understand rationale behind labour laws
2	To equip students with important provisions of various labour laws
3	To give students insight into the implementation of labour laws.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to Labour Laws: Why Labour Laws? Evolution of Labour Laws, Indian Perspective, Labour Laws and changing scenario, need for change in labour laws, Implementation of labour laws, Problems and challenges, ILO and its role.	3 + 1
2	The Payment of Wages Act 1936: Sections # 1 to 26, 12A, 13A, 14A, 15A, 17A, 17B, 22A, 25A, The Minimum Wages Act 1948, Sections # 1, 2, 11 to 18, 20, The Payment of Bonus Act 1965: Sections # 2, 4 to 17, 19, 20, 21, 22, 26, 28, 29, 30, 32	8 + 2
3	The Factories Act 1948: Sections # 1, 3, 5, 6, 7, 10, 15 to 20, 23, 31, 40, 40A, 40B, 41, 42, 44, 45, 46, 47, 48, 49. All provisions under Chapter VI, VII, VIII	11 + 3
4	The Employee Provident Fund and Miscellaneous Provisions Act 195 : Sections # 2, 5, 6, 7, 8, 11, 12, 14, 15, 16, 17, 18, 20 The Payment of Gratuity Act 1972: Sections # 2, 4, 6, 7, 8, 10, 11, 12, 14, 15, 16, 17, 18, 20	8 + 2
5	The Employee State Insurance Act 1948: Sections # 2 and All provisions in Chapter IV, V, VIII The Workmen's Compensation Act 1923: Sections # 2 to 14, 16, 22	5 + 2

Learning Resources:

1	Text Books	Labour Law by S.P.Jain Labour Law by Malik
2	Reference Books	Introduction to Labour & Industrial Laws, Avatar Singh, LexisNexis Labour & Industrial Laws by S.N.Mishra, Central law publication Elements of Mercantile Law by N.D.Kapoor, Sultan Chand Bare Acts
3	Supplementary Reading Material	APS Labor Digest
4	Websites	www.india-laws.com www.lawinfo.com www.lawsinindia.com
5	Journals	Management & Labour Studies International Labour Review

Semester	III	Specialization	HRM
Course Code	306HR	Type	Specialization - Core
Course Title	Performance Management		

Course Objectives:

1	To orient the students with the concepts related to performance appraisal.
2	To facilitate learning related to performance management for employees

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to Performance Management System: Definition, concerns and scope - Historical developments in Performance Management - Performance appraisal Vs. performance management - performance management Vs. Human resource management - processes for managing performance - Essence and Implications of Performance Management-critical appraisal	3 + 1
2	Performance Management Process: Performance planning Setting objectives - Organizational and individual performance plans - Components of Manager's performance and development plan - setting mutual expectations and performance criteria. Performance Managing, Objectives of performance managing, Process of performance Managing, Importance of performance managing. Performance Appraisal, Objectives of performance Appraisal, Process of performance appraisal, Types of Performance appraisal, Achieving effective Performance appraisal. Monitoring and Mentoring, Introduction - Supervision - Objectives and Principles of Monitoring - monitoring process - periodic reviews - problem solving - engendering trust - role efficacy.	8 + 2
3	Implementing Performance Management: Strategies for effective implementation of performance management-Top Management agreement commitment and leadership, Building Performance oriented Work culture. Factors affecting effective use of performance management-Corporate culture, alignment, Review and update	11 + 3
4	Reward for Performance: Reward System, Components of Reward System, Objective of Reward System, Linkage of performance management to reward and compensation System Performance Management Pitfalls and Remedies, Recognizing the problems and Pitfalls, Limitations, Shortcoming or efficiencies of performance appraisal, Guideline for performance appraisal and good practices	8 + 2
5	Ethics in Performance Management: Ethical Performance Management Defined, Objectives and Significance of Ethics in performance Management, Ethical issues and dilemmas in Performance Management, Ethical Strategies in Performance management, Performance Management in Multinational Corporations	5 + 2

Learning Resources:		
1	Text Book	Performance Management: The New Realities by Michael Armstrong & Angela Baron, Jaico Publishing House, New Delhi, 2002 Appraising and Developing Managerial Performance by TV Rao Learning Systems Pvt. Limited, Excel Books, 2003
2	Reference Books	Corporate Performance Management by David Wade and Ronad Recardo, Butter Heinemann, New Delhi, 2002. Performance Management by A.S. Kolhi & T. Deb, Performance Management Systems by A.M. Sharma
3	Supplementary Reading Material	Compensation Management in a Knowledge Based World by Henderson , Pearson Education, 9 th Edition
4	Websites	http://shrmindia.org http://humanresources.about.com/od/performancemanagement
5	Journals	International Journal of Business Performance Management International Journal of Human Resource Management Human Resource Management Journal Human Resource Management

Semester	III	Specialization	HRM
Course Code	307HR	Type	Subject - Elective
Course Title	Employee Health & Safety		

Course Objectives:

1	To learn the basic concepts of safety management
2	To study the various provisions of employee health and safety.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Health and Safety Organization and Administration : Safety Organization, Safety Planning, Safety policies, Safety officer, Fire hazards, Fire inspection, Safety inspection, Plant inspection list, Record keeping	8 + 1
2	Occupational and Work Related Health and Safety: Occupational health , Occupational Safety , Occupational Disease, Fire Basic Chemistry/Mechanism , Reasons, Prevention and Types of Fire, Extinction of Fire, Loss Prevention, Association- Objective Formation, Scope and Significance	5 + 1
3	Accident compensation statutes: Section I: The Dangerous Machines Act 1983 (Entire Act), The fatal accident Act 1855 (Entire Act), Workmen Compensation Act 1928(Health and Safety Related Sections), The Mine Act 1952(Section 19 to 22) Section II: The Employers liability Act 1938(Entire Act), Public Liability Insurance Act 1991(Entire Act), The Employees State Insurance Act 1948(Health and Safety Related Sections), Factories Act 1948 (Section 11 to Section 40), Maharashtra Factories Rule 1963(Health and Safety Related Sections), Maharashtra Safety Officers Rule 1982(Health and Safety Related Sections)	6 + 2
4	Environmental Pollution and Protection: Air pollution, Water pollution, Soil pollution, Noise pollution, The Air Prevention and Control Act 1981, The Water Prevention and Control Act 1974 , The Environment Protection Act 1986: Definitions, General powers of the central Government: Power of Central Government to take measures to protect and improve environment, appointment of officers and their powers and functions, rules to regulate environmental pollution.	3 + 1
5	Field Visit: It is expected that students should visit an organization. The students are expected to prepare reports of accidents.	3

Learning Resources:		
1	Text Books	Industrial health and Safety Management by A.M. Sarma
2	Reference Books	T Safety Management: John V. Grimaldi, Rollin H. Simonds Industrial Safety Management by L.M. Deshmukh
3	Supplementary Reading Material	BARE Acts APS Labour Digest
4	Websites	www.lawsinindia.com www.lawforyou.com
5	Journals	Management & Labour Studies International Labour Review

University of Pune

Semester	III	Specialization	HRM
Course Code	308HR	Type	Subject - Elective
Course Title	Employee Welfare		

Course Objectives:	
1	To equip students with welfare concepts & practices
2	To study statutory & non statutory welfare facilities
3	To acquaint students with role of various agencies

Syllabus:

Unit Number	Contents	Number of Sessions
1	Labour Welfare : Introduction & Origin, Welfare from Indian prospective, Objectives, principals, approaches, classification of welfare	4 + 1
2	Labour Welfare Officer: Need, role, functions, duties, Qualification, disqualification, Duties under Maharashtra Welfare officers Rules 1966.	5 + 1
3	Statutory & Non Statutory welfare facilities : Study of all statutory & Non statutory welfare facilities	5 + 1
4	Role of various agencies in Labour Welfare Employer: Employer, Government, Trade Unions, NGO	4 + 1
5	Field Study/ Desk Research: Student along with faculty are expected to study employee welfare facilities practiced by the organizations in the area & prepare a report	7 + 1

Learning Resources:		
1	Text Books	Aspects of Labour Welfare & Social Security by A.M. Sharma
2	Reference Books	Labour Welfare, Trade Unionism by S.D. Punekar Labour Problems & Social Welfare by R.C. Tyagi
3	Supplementary Reading Material	APS Labour Digest
4	Websites	www.articlesbase.com http://industrialrelations.naukrihub.com/employee-welfare.html
5	Journals	Management & Labour Studies International Journal of Human Resource Management Human Resource Management Journal

Semester	III	Specialization	HRM
Course Code	309HR	Type	Subject - Elective
Course Title	HR Audit		

Course Objectives:

1	To provide a balanced and comprehensive exposition of the concept of HRD Audit
2	To learn the tools and techniques required for its implementation
3	To provide a balanced and comprehensive exposition of the concept of HRD Audit

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction : Origins of HR Audit, HRD Audit Basic Concepts and Components, Elements of Good HRD	5 + 1
2	HRD and HR Audit : HRD Strategies, HRD Structure, HRD Systems , HRD Competencies	5 + 1
3	HRD Audit Methodology : HRD Audit Methodology –Interview- Individual, Group, HRD Audit Methodology-Observation-Physical facilities, Meetings, Discussions, and Transaction , Celebration and Events, HRD Score Card: Designing and Using HRD Audit for Business Improvement	7 + 2
4	Effectiveness of HRD Audit as an Intervention : Objective, Variables Used, Instruments Used, Tools of Data Collection, Major Findings and Conclusion	8 + 1

Learning Resources:

1	Text Books	HRD Audit – Evaluating the Human Resource Functions for Business Improvement by T.V. Rao, Response Books
2	Reference Books	Human Resource Management by Gary Dessler, Pearson Publications
3	Supplementary Reading Material	---
4	Websites	http://www.expressindia.com/fe/daily/19980719/20055424.html http://strengthbasedstrategies.com/PAPERS/24%20TVRaoFormatted.pdf
5	Journals	International Journal of Human Resource Management Human Resource Management Journal Human Resource Management

Semester	III	Specialization	HRM
Course Code	310HR	Type	Subject - Elective
Course Title	Human Resource Information System		

Course Objectives:

1	To learn fundamental principles of HRIS
2	Developing specific HRIS skills competencies needed by professionals

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction To Human Resource Management And Human Resource Information Systems: Evolution of Human Resource Management and Human Resource Information Systems: The Role of Information Technology, Database Concepts and Applications in Human Resource Information Systems, Systems Considerations in the Design of an HRIS: Planning for Implementation	5 + 1
2	Determining Human Resource Information System's Needs: Human Resource Information Systems Needs Analysis, System Design and Acquisition, HR Metrics and Workforce Analytics, Cost Justifying Human Resource Information Systems Investment	5 + 1
3	Resource Information Systems Implementation And Acceptance: Human Resource Information Systems Project Management, Change Management: Implementation, Integration and Maintenance of the Human Resource Information Systems	3 + 1
4	Human Resource Information Systems Applications: Human Resource Administration and Human Resource Information Systems, Talent Management 1: Job Analysis and Human Resource Planning, Recruitment and Selection in an Internet Context, Training and Development: Issues and Human Resource Information Systems Applications, Performance Management, Compensation, Benefits, Payroll and the Human Resource Information Systems, International Human Resource Management	7 + 1
5	Special Topics In Human Resource Information Systems: Information Security and Privacy in Human Resource Information Systems, The Future of Human Resource Information Systems: Emerging Trends in Human Resource Management and Information Technology	5 + 1

Learning Resources:

1	Text Books	Human Resource Information Systems- Basics, Application, Future and Direction by Dr. Michael Kavanagh and Dr. Mohan Thite
2	Reference Books	Human Resource Information System by P.K.Gupta and Sushil Chaabra
3	Supplementary Reading Material	Human Resource Management by Gary Dessler, Pearson Publication
4	Websites	http://smallbusiness.chron.com/advantages-disadvantages-human-resource-information-system-2107.html
5	Journals	International Journal of Human Resource Management Human Resource Management Journal Human Resource Management

Semester	III	Specialization	HRM
Course Code	311HR	Type	Subject - Elective
Course Title	Outsourcing of HR		

Course Objectives:

1	To learn the basic concepts of outsourcing
2	To enable the students to understand each stage of out sourcing process

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: What is Outsourcing? Factors Driving the Need to Outsource, Types of Outsourcing, Skills Needed to Manage Outsourcing Efforts, The Outsourcing Lifecycle, Stages of Outsourcing	7 + 1
2	Outsourcing Strategies: Four Elements of Strategic Assessment , Business Value Assessment, Risk Assessment	2 + 1
3	Defining Needs and Vendor Assessment : In-depth Look at Operational Assessment, Defining Needs, Conclusion in Checklist, Types of Vendors, The Process of Vendor Assessment, Common Errors while Choosing Vendors	5 + 1
4	Negotiation and Contract Management : Negotiation management, Contract Management, Project Initiation and Transition, Key Considerations	4 + 1
5	Managing Relationships and Repeating the Processes: Work Administration, Communication Management, Knowledge Management, Personnel Management and Financial Management, The Argument for Continuing the Exit Strategy, Outsourcing Management Maturity Model (OMMM), Relationship Management Office	7 + 1

Learning Resources:

1	Text Books	The outsourcing Handbook: How to implement a Successful Outsourcing Process by Mark J. Power, Kevin c. Desouza, carlo Bonifazi
2	Reference Books	Human Resource Outsourcing- An Introduction by V.R. P. Kashyap, E. Mrudula, ICAFAI University Press
3	Supplementary Reading Material	Human Resources Outsourcing: Solutions, Suppliers, Key Processes and the Current Market : a Case-study-based Market Review by Ian Hunter, Jane Saunders, Gower Publishing, Ltd., 2007
4	Websites	http://www.induction.to/outsourcing/ http://www.strategic-human-resource.com
5	Journals	International Journal of Human Resource Management Human Resource Management Journal Human Resource Management

Semester	III	Specialization	HRM
Course Code	312HR	Type	Subject - Elective
Course Title	Public Relations & Corporate Communications		

Course Objectives:

1	To make students understand importance of effective communication in HR
2	To equip students with PR initiatives by the HR professional

Syllabus:

Unit Number	Contents	Number of Sessions
1	Public Relations & Corporate Communication : Introduction to corporate communication, Public relations writing-writing to inform, writing to persuade, Design & lay out, Online public relations	4 + 1
2	Media Relations : Building maintaining relationship with credibility with media, Developing methodologies for successful practice of media relations	5 + 1
3	Public Relations : Concept, theory, history & practice of public relations, Importance of PR for HR professionals, PR campaign & strategies for PR, Evaluating PR activities	5 + 1
4	Communication Management : Presentation skills, Developing strategic communication plan, Synthesizing internal & external initiatives, Event Management	4 + 1
5	Field Study/ Desk Research : Student along with faculty are expected to study PR activities and communication strategies designed & practiced by the organizations in the area & prepare a report.	7 + 1

Learning Resources:

1	Text Books	Public Relations by Phillip Henslowe, Chartered Institute of PR, 2 nd Edition,
2	Reference Books	Public Affairs in Practice by Stuart Thomson & Stevee John, Chartered Institute of PR, 1 st edition
3	Supplementary Reading Material	Develop your PR Skills by Neil Richardson& Lucy Laville, The Sunday Times, Creativity in PR by Andy Green, Chartered Institute of PR, 3 rd edition, Running a PR Department by Mike Beard, Chartered Institute of PR, 2 nd Edition
4	Websites	http://www.public-relations-india.blogspot.in/
5	Journals	International Journal of Human Resource Management Human Resource Management Journal Human Resource Management

Semester	III	Specialization	HRM
Course Code	313HR	Type	Subject - Elective
Course Title	Quality Management System		

Course Objectives:

1	To create an awareness of fundamental principles, significance and implementation of quality management
2	To use new concepts of TQM in the process of continuous improvement and learning

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: History of Total quality management, Principles of TQM, Features of TQM, Tool and techniques of TQM, TQM implementation, Barriers to TQM implementation	5 + 1
2	Components of TQM: Customer supplies relationship, Management leaders and leadership in TQM system, Values vision mission and goals in TQM, Cultural change for TQM, Continuous improvement and learning in TQM, Creativity and innovation, Communication.	7 + 1
3	Quality Certification: Evolution of ISO 9000 standard, Principles and objectives of ISO 9000 standard, Procedure for registration and certification of ISO 9000 Standards, ISO 9000 standard versus QS 9000	5 + 1
4	5S for Quality Ambience: Definition of 5S, Implementation of 5S	3 + 1
5	Tools for Continuous Improvements: PDCA process, Just in Time, Poka Yoke , Kaizen, Six Sigma.	5 + 1

Learning Resources:

1	Text Books	Total Quality Management Principles and Practices by S.K Mandal
2	Reference Books	Total Quality Management by N. Srinivasa Gupta, B. Valarmathi Total Quality Management by I. Suganthu, Anand Samuel
3	Supplementary Reading Material	Quality control & Total Quality Management by P.L. Jain, TMGH An Executive Handbook- World Class Quality by Suresh Lulla, TMGH
4	Websites	http://www.iso.org/iso/qmp http://www.stqc.gov.in/content/quality-management-system-qms
5	Journals	International Journal of Human Resource Management Human Resource Management Journal Human Resource Management

Semester	III	Specialization	HRM
Course Code	314HR	Type	Subject - Elective
Course Title	Lab in Recruitment and Selection		

Course Objectives:

1	To give hands on experience to students on Recruitment advertisements, profiling techniques
2	To acquaint students with different interviewing methods

Syllabus:

Unit Number	Contents	Number of Sessions
1	Comparative study of 10 recruitment advertisements (5 from Newspaper & 5 from job portals) & analysis of the same in the light of : Job Specification/ description, Mode of selection, Other details - Documentation for Recruitment	10
2	Profiling Techniques : Personality, Aptitude, Competency	10
3	Interviewing : Study of Interview modes, List of questions for interviewers, Personal, Telephonic	10

Learning Resources:

1	Text Books	Human Resource and Personnel Management byK Aswathappa, Publisher, TMGH
2	Reference Books	Effective Recruitment and Selection Practices byAlan Nankervis, Robert Compton, Bill Morrissey, 5 th Edition. Recruitment and Selection (Developing Practice), Chartered Institute of Personnel and Development
3	Supplementary Reading Material	Successful Interviewing and Recruitment byRob Yeung, Kogan ,Page Publishers, 2008
4	Websites	www.articlebase.com
5	Journals	International Journal of Human Resource Management Human Resource Management Journal Human Resource Management

Semester	III	Specialization	HRM
Course Code	315HR	Type	Subject - Elective
Course Title	Lab in Job Design & Analysis		

Course Objectives:

1	To give hands of experience to the students of designing jobs at various levels
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Syllabus:

Unit Number	Contents	Number of Sessions
1	Faculty is expected to divide students in group of 5 students each & brief them about the process of Job design & Analysis	5
2	Each group assigned to design jobs at following levels from manufacturing/ service sector: Lower Level- 2 jobs , Middle Level- 2 jobs, Top level- 2 jobs	15
3	Presentation by the student & submission of assignment to the concern faculty	10

Learning Resources:

1	Text Books	Job Analysis: Methods, Research, and Applications for Human Resource Management in the New Millennium by Michael T. Brannick
2	Reference Books	Human Resource Management by Gary Dessler
3	Supplementary Reading Material	Human Resource Management by K. Ashwathappa, TMGH
4	Websites	http://www.job-analysis.net/018.htm http://toolkit.ahpnet.com/Building-a-Recruitment-and-Retention-Plan/Step-3-Analyze-the-Selected-Job-Position http://www.icmrindia.org/courseware/Intro%20to%20Hrm/hrm-DS5.htm
5	Journals	International Journal of Human Resource Management Human Resource Management Journal Human Resource Management

Semester	III	Specialization	HRM
Course Code	316HR	Type	Subject - Elective
Course Title	Lab in Training		

Course Objectives:	
1	To make students understand training need analysis
2	To help students design Training Programmes
3	To make students understand & design training methods

Syllabus:		
Unit Number	Contents	Number of Sessions
1	Students are divided in group of 5 students each. Faculty along with students identify 6 cadres at different levels & prepare Training Need Analysis	10
2	After this design training programme with reference to TNA	10
3	Design Training methods for the Training programme designed.	10

Learning Resources:		
1	Text Books	The ASTD Training and Development Handbook: A Guide to Human Resource Development by Robert Craig, McGraw-Hill.
2	Reference Books	Creative Training Techniques Handbook by Robert W. Pike, CSP
3	Supplementary Reading Material	Training & Development by Dr. B. Janakiraman, Dreamtech Press, Indian Text Edition, 2007.
4	Websites	www.astd.org www.istdtrg.org
5	Journals	International Journal of Human Resource Management Human Resource Management Journal Human Resource Management Advances in Developing Human Resources

Semester	III	Specialization	HRM
Course Code	317HR	Type	Subject - Elective
Course Title	Lab in Labor Laws - I		

Course Objectives:

1	To give students insight into the implementation of labour laws
2	To acquaint students with calculation of due/ compensations/ contributions etc.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Calculations of: Bonus, Gratuity, Compensations under W.C. Act, Provident Fund, ESI contributions, Accident Report Writing	10
2	Inviting industry experts to understand calculations of the above in their respective organizations.	10
3	Students to be given assignments either realistic or hypothetical to calculate above	10

Learning Resources:

1	Text Books	Labour Law by S.P. Jain Labour Law by Malik
2	Reference Books	Introduction to Labour & Industrial Laws by Avatar Singh Labour & Industrial Laws by S.N.Mishra, Central law Publication Labour Laws by S.D. Geet, Nirali Prakashan Elements of Mercantile Law by N.D.Kapoor, Sultan Chand Bare Acts
3	Supplementary Reading Material	APS Labor Digest
4	Websites	www.india-laws.com www.lawinfo.com www.lawsinindia.com www.lawforyou.com
5	Journals	--

MBA SYLLABUS: SEMESTER III
INTERNATIONAL BUSINESS MANAGEMENT - SPECIALIZATION

Semester	III	Specialization	IB
Course Code	305IB	Type	Subject Core
Course Title	International Business Economics		

Course Objectives:

1	To explore the students the relevance of various trade theories/models
2	To explore the students to understand deep current issues in International Trade
3	To enable students to use economic tools to analyze diversity of issues in the international economy.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Background for International Business Economics : Globalization and International Business – The Emergence of Global Institutions – Drivers of Globalizations - The Globalization Debate - The Gains from Trade - Foreign Trade Multiplier - Balance of Payments	5 + 2
2	The International Trade Theory : The Law of Comparative Advantage – The– Demand and Supply, Offer Curves, and the Terms of Trade – Factor Endowments and the Heckscher – Ohlin theory – Implications of Trade Theories - Economics of Scale, Imperfect Competition, and International Trade.	6 + 2
3	a) International Trade Policy : Trade Restrictions - Tariffs , Non-Tariff Trade Barriers - Tariff vs. Quota - The New Protectionism – Economic Integration - Custom Unions and Free Trade Areas - Major Regional Trade Agreements b) Foreign Exchange : Foreign Exchange Market – Types of Foreign Exchange Transactions – Reading Foreign Exchange Quotations – Forward and Futures Market – Foreign-Currency Options – Exchange Rate Determination – Arbitrage – Speculation and Exchange-Market Stability	10 + 2
4	World Financial Environment : Global Foreign – Exchange Markets – Economic Theories of Exchange Rate Determination - International Regime for FDI and MNC- Do Global Corporations Pose a Threat? - Consequences of Economic Globalization	7 + 2
5	International Banking : Reserves, Debt and Risk : Nature of International Reserves – Demand for International Reserves – Supply of International Reserves – Gold Exchange Standard – Special Drawing Rights – International Lending Risk – The Problem of International Debt – Financial Crisis and the International Monetary Fund – Eurocurrency Market	7 + 2

Learning Resources:		
1	Text Books	International Economics Theory and Policy , 6/E Paul Krugman, Maurice Obstfeld, Pearson Education International Economics, 9/E, Robert Carbaugh, Thomson – South Western International Business , 12/E, John Daniels, Lee Radebaugh, Daniel Sullivan and Prashant Salwan, Pearson
2	Reference Books	Pugel, Thomas, International Economics, 13th edition, McGraw-Hill-Irwin, 2007. Friedman, Thomas, The World is Flat, 2nd edition, Farrar, Strauss and Giroux, New York, 2006 Edward Leamer, editor, International Economics, Worth Series in Outstanding Contributions, Worth Publishers, 2001 Jagdish N. Bhagwati, Arvind Panagariya, and T. N. Srinivasan, Lectures on International Trade, second edition (Cambridge, MA: MIT Press, 1998). Paul R. Krugman, Rethinking International Trade (Cambridge, MA: MIT Press, 1990).
3	Supplementary Reading Material	Irwin, D.A. 1996. "The United States in a New Global Economy? A Century's Perspective." American Economic Review 86(May): 41-46. Krugman, Paul "The Narrow and Broad Arguments for Free Trade," American Economic Review, 83(2), pp. 362-366, may 1993. Economic Times Daily Business Standard Daily
4	Websites	http://www.wto.org/ http://www.imf.org/external/index.htm
5	Journals	Asian Economic Bulletin Foreign Trade Review Global Business Review Global Journal of International Business Research International Business & Economics Research Journal International Business and Management International Trade Forum International Trade Journal Journal of Economic Perspectives Journal of International Business Journal of International Business and Economy Journal of International Trade & Economic Development Journal of Asian Business World Affairs: the Journal of International Issues

Semester	III	Specialization	International Business Management
Course Code	306IB	Type	Subject Core
Course Title	Export Documentation and Procedures		

Course Objectives:

1	To familiarize students with policy, procedures and documentation relating to foreign trade operations.
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Syllabus:

Unit Number	Contents	Number of Sessions
1	Significance of procedures and documentation in international trade; procedures and documentation as trade barriers; WTO provisions; Aligned Documentation System (ADS); official machinery for trade procedures and documentation; ITC(HS) classification System ;Role of ICC; INCOTERMS; nature of export/trading houses.	7 + 2
2	Export order processing; export contract; export price quotations; shipping and custom clearance of export and import cargo; central excise clearance; main export and import documents; Role of forwarding agents; cargo insurance and claim procedure.	7 + 2
3	Methods of payment in international trade; documentary collection of export bills; UCPDC guidelines; realization of export proceeds – provisions of RBI's Exchange Control Manual; pre-shipment and post-shipment finance; role of EXIM bank and ECGC in India.	7 + 2
4	Major export promotion schemes in India – EPCGS, duty exemption scheme; DEPB scheme; SIL; facility for deemed exports; Export promoting institution's – role of export promotion councils, commodity boards and ITPO.	7 + 2
5	Regulations for International Trade: Major laws governing India's export import trade- Foreign Trade (Development & Regulation) Act, Pre-shipment Inspection & Quality Control Act, 1963 & Customs Act, 1962; Foreign Exchange Management Act, 2000	7 + 2

Learning Resources:		
1	Text Books	Export Import Procedures & Documentation by Dr. Kushpat S. Jain, HPH, 5 th Revised Edition, Aug. 2007 Export Marketing by B. S. Rathor & J. S. Rathor, HPH, 3 rd Revised & Enlarged Edition, 2006 Export Management by T. A. S. Balagopal, HPH, 18 th Revised Edition, 2006 Export Management by D.C. Kapoor, Vikas Publishing House, 2009 Export- Policy, Procedures and Documentation by M. I. Mahajan, Show white, 24 th Edition, 2010
2	Reference Books	Export Procedures and Documentation by M.D. Jitendra, Rajat Publications, Delhi. Export Markets and Foreign Trade Management by Pervin Wadia, Kanishka Publications, New Delhi.
3	Supplementary Reading Material	Nabhi's Exporters Manual and Documentation. Nabhi's New Import-Export Policy Procedures.
4	Websites	http://www.eximbankindia.com/
5	Journals	Foreign Trade Review Global Business Review International Trade Forum International Trade Journal Journal of Economic Perspectives Journal of International Business Journal of International Business and Economy Journal of International Trade & Economic Development Law & Policy in International Business Monthly Statistics of International Trade World Affairs: the Journal of International Issues

Semester	III	Specialization	International Business Management
Course Code	3071B	Type	Subject - Elective
Course Title	International Management		

Course Objectives:

1	To familiarize students with the cross –cultural behaviour and its management for successful operations of the international firms
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Syllabus:

Unit Number	Contents	Number of Sessions
1	International Management: Concept, Dimensions and Approaches; Business culture and corporate culture; Problems of intercultural communication; Cross -cultural values and business management; Business values ethics and social responsibilities.	5 + 1
2	Challenges of Global Planning: Economics, political, and strategic predisposition imperatives; Resource allocation and portfolio compositions of a global firm; Planning for linkages and synergies among business across borders; Locus of decision making; Headquarter-subsidiary relationships in international business enterprises.	5 + 1
3	Organization and Control for international Competitiveness: Organization design and structure of international companies; Global product division; Matrix and network structures; Managing communication across cultures; Managing for continuous innovations in trans-cultural context; Developing coordination; Systems of control in international operations.	5 + 1
4	Management of Personnel with Different Social and Cultural Backgrounds: Selection, training and development of people for global assignments; Compensation and reward practices among international firms; managing cultural and social diversities. Motivation and leadership in international Firms.	5 + 1
5	Managing Political Risks: Host country home country and multinational relationships; Political risk assessment and protection techniques for multinational corporations; Organizing for political risk management.	5 + 1

Learning Resources:		
1	Text Books	Adler, Nancy J., International Dimensions of organizational Behaviour, 4th ed., South western College Publishing Company, Singapore, 2001. Bartlett, C.A. and S. Ghoshal, Managing Across Borders: The Transnational Solution, Century Business London, 1989. Beamish, Paul w., Allen J. Morrison, Phillip M. Rosenzweig and Andrew C. Inkpen, International Management: Text and Cases, Irwin McGraw Hill, Boston, 2000.
2	Reference Books	Helen, D., Management: Managing Across Borders and Cultures, Prentice - Hall, Upper Saddle River, New Jersey, 2000. Hiltrop, Jean-M and Shiela Lidall, The Essence of Negotiation, Prentice Hall of India Pvt. Ltd., New Delhi.
3	Supplementary Reading Material	Hodgetts, R.M. and F. Luthans, international Management, McGraw -Hill, New York. Hoecklin, L., Managing Cultural Differences: Strategies for Competitive Advantage, Addison-Wesley, Washington. Holt, D. H., International Management: Text and Cases, The Dryden Press, Harcourt Brace College Publishers, New York. Porter, M.E., Competition in Global Industries, Harvard Business Press, New York, 1996. Pucik, C.A. and Y. Doz and G. Healund, Managing the Global Firm , Routledge, London, 1990. Rodrigues, Carl, International Management: A Cultural Approach, 2ndEd., South Western College Publishing-Thompson Learning, Australia, 2001. Terence, J., Cross Cultural Management, Butterworth, Heinemann, London, 1995. Thakur, M., G. E. Burton and Srivastava, B.N., International Management: Concepts and Cases, Tata McGraw-Hill Publishers, Delhi. Vernon, R and L.T. Wells, Manager in the International Economy, Prentice – Hall Englewood Cliffs.
4	Websites	-
5	Journals	Asian Journal of Management Cases Economic and Political Weekly Enterprise and Society: The International Journal of Business History Global Business Review Global Journal of International Business Research Harvard Business Review International Business and Management Journal of Economic Perspectives Journal of International Business Journal of International Business and Economy Journal of International Trade & Economic Development Journal of Asian Business Leadership Excellence South Asian Journal of Management World Affairs: the Journal of International Issues

Semester	III	Specialization	International Business Management
Course Code	308IB	Type	Subject - Elective
Course Title	International Marketing		

Course Objectives:

1	To help the students understand the peculiarities of international marketing
2	To develop the students' ability to devise marketing mix for international marketing

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: Nature, importance and scope of international marketing International market orientation and involvement, International marketing management process – an overview. Scanning and monitoring global marketing environment; International marketing information system; broad structure of an international marketing plan.	5 + 1
2	International Market Segmentation and Positioning: Screening and selection of markets; International market entry strategies -Exporting licensing contract manufacturing, joint venture, setting -up of wholly owned subsidiaries aboard. International Product Planning: Major Product decisions-Product features and quality, Product design, labeling, packaging, branding and product support services; Product standardization vs. adaptation; Managing product line; International trade product life cycle; New product development.	7 + 1
3	Pricing for International Markets: Pricing strategies; Factors affecting international price determination; environment factors affecting international prices; International pricing process and policies; Delivery terms and currency for export price quotations; Transfer pricing. International dumping; financing marketing transactions	3 + 1
4	International Distribution Decisions: The structure of international distribution systems; Distribution channel strategy-International distribution channels, their roles and functions; Selection and management of overseas agents; Aspects of international supply chain management; International distribution logistics inventory management transportation, warehousing and insurance. International direct marketing; leveraging international distribution for competitive advantage.	5 + 1
5	International Promotion Strategies : International promotion mix; push and pull strategies; Communications across countries-complexities and issues; International promotion tools and planning – Advertising, personal selling, publicity and sales promotion; challenges of international advertising; global media strategy; Developing international promotion campaign; Standardization vs. adaptation issue; Planning for direct mail, sales literature, trade fairs and exhibitions.	5 + 1

Learning Resources:		
1	Text Books	Onkvisit Sak and John J Shaw, International Marketing – Analysis and Strategy, PHI, New Delhi Joshi, Rakesh Mohan, International Marketing, Oxford University Press, New Delhi Rajgopal, International Marketing, Vikas Publication, New Delhi
2	Reference Books	Doole Isobel and Robin Lawe, International Marketing Strategy, Thomson Learning Keegan Warren J, Global Marketing Management, Pearson Education, New Delhi
3	Supplementary Reading Material	Bhattacharya, B., Export Marketing Strategies for Success, Global Business Press, New Delhi, 1991. Cateora, Phillip R. and John L. Grahm, International Marketing, 10th Ed., Irwin McGraw Hill, Boston, 1999. Jain, Subash C., International Marketing Management, 6th ed., South Western College Publishing – International Thompson Publishing Company. Cincinnati, 2004. Fair-weather, John International Marketing, Prentice Hall of India Private Ltd., New Delhi
4	Websites	-
5	Journals	Asian Economic Bulletin Asian Journal of Management Cases Global Business Review Global Journal of International Business Research Harvard Business Review International Business and Management International Business Research International Journal of Marketing and Trade Policy Journal of Economic Perspectives Journal of International Business Journal of International Business and Economy Journal of International Consumer Research Journal of Asian Business

Semester	III	Specialization	International Business Management
Course Code	309IB	Type	Subject - Elective
Course Title	International Marketing Research		

Course Objectives:

1	To highlight the significance of International Marketing Research and provide a compressive understanding the research process
2	To develop an in-depth knowledge of the challenges associated in conducting market research internationally
3	To understand the simple and advanced data analysis for International Marketing Research
4	To make sound marketing decisions on the basis of collected and analyzed data

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: Nature and scope of marketing research; marketing research in international context-importance, complexities and issues; Organizational framework for international marketing research; International Marketing Information System (IMIS).	5+1
2	Marketing Research Process: An overview; problem identification and definition; Preparing research proposal; Exploratory, descriptive and experimental research designs; international secondary data sources; Primary data collection methods and complexities of data collection in international marketing research; Online data sources and research.	5+1
3	Questionnaire preparation : etic and emit dilemma; Sample design – sampling methods and sample size determination; Fieldwork and data collection; Sampling and non-sampling errors.	5+1
4	Multi – country Data Analysis and Interpretation: Data editing and coding preliminary data analysis, Univariate and multivariate data analysis techniques- Discriminate analysis, factor and conjoint analysis: (including application software). Issues in multi-country data analysis-Data comparability and validity problems; Report preparation and presentation.	5+1
5	Cross-cultural Consumer research : Attitude measurement and scaling techniques; Product research; Advertising research; International market opportunity analysis; Ethical issues in international marketing research.	5+1

Learning Resources:		
1	Text Books	International Marketing Research by V. Kumar, Pearson Education, 1st ed. Aaker, David A, V. Kumar arki George S Day, Marketing Research, John Wiley and Son, New York, 2001. Boyd, Harper w., et al Marketing Research: Text and Cases, Irwin, Homewood Illinois.
2	Reference Books	International Marketing Research by Craig & Douglas, Wiley, 3rd ed. Green, P.E. et al, Research for marketing Decisions, Prentice Hall of India Ltd., New Delhi. Malhotra, Naresh K., International Marketing Research - An Applied Orientation, 3rd ed., Person Education Asia. Tull, D.S. and D. I. Hawkins, Marketing Research: Measurement and Methods, Prentice Hall of India Ltd., New Delhi
3	Supplementary Reading Material	Alex Rialp, Josep Rialp (2006), "International Marketing Research: Opportunities and Challenges in the 21st Century", International Marketing Research (Advances in International Marketing, Volume 17), Emerald Group Publishing Limited, pp.1-13 Douglas, S.P. and C.C. Samuel (2000) "Conducting International Marketing Research in the 21st Century", International Marketing Review Douglas, Susan P; Craig, C. Samuel (2006) "On Improving the Conceptual Foundations of InternationalMarketingResearch " Journal of InternationalMarketing . 2006, Vol. 14 Issue 1, p1-22. 22p Sarstedt, Marko; Schwaiger, Manfred; Taylor, Charles R (2011) "Introduction: Measurement And Research Methods In InternationalMarketing ". Advances in InternationalMarketing . 2011, Vol. 10 Issue 22, p3-7 Barnard, P. (1997), "Global developments and future directions in marketing research," Globalization and the Millennium: Opportunities and Imperatives, Marketing Science Institute, June 16-17, Brussels, Belgium
4	Websites	http://as.wiley.com http://drvkumar.com
5	Journals	International Journal of Market Research International Journal of Research in Marketing International Journal of Management and Marketing Research

Semester	III	Specialization	International Business Management
Course Code	3101B	Type	Subject - Elective
Course Title	International Financial Management		

Course Objectives:

1	To make the students aware about the operations in foreign exchange market
2	To sensitize the student with complexities of managing finance of multinational firm
3	To understand the regulatory framework within which the operations can take place

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: Complexities and issues in financial decisions of a multinational firm: Foreign investment decisions: Exchange rate movement and decision to invest: Foreign direct investment theories and strategies: Green field investment vs. acquisitions and mergers.	5+1
2	International Capital Budgeting: Multinational considerations and calculation of cash flows; Adjusted present value approach: Cost capital: Assessment and management of political risks.	5+1
3	International Working Capital Management: Cash management; Receivables and inventory management. Dividend Policy for Multinational Corporations	5+1
4	Currency and Interest Rate Risk Management: Exposure and risk; Transaction, translation and real operating exposure; Exposure management contractual and natural hedging; interest rate risk assessment and management.	5+1
5	International Accounting: Foreign currency translation; Multinational transfer pricing and performance measurement; Consolidated financial reporting international accounting standards and practices. International Taxation: Key elements and issues; International tax environment; Bilateral treaties and tax heavens.	5+1

Learning Resources:		
1	Text Books	Apte P.G., Multinational Financial Management, Tata -McGraw Hill, New Delhi. Baker J.C., International Finance: Management, Markets and Institutions, Prentice Hall, Englewood Cliffs. Eiteman, David K., Arthur Stonehill and Micheal H. Moffett, Multinational Business Finance, Addison-Wesley Publishing Company, Readings Mass.
2	Reference Books	Rathore, Shirin, International Accounting, Prentice Hall of India Pvt. Ltd., New Delhi. Seth, A.K., International Financial management, Galgotia Publishing. Shapiro, Allen C., Multinational Financial Management, John Wiley & Sons, 2001.
3	Supplementary Reading Material	Eun, Cheol and Bruce Resnick, International Financial Management, McGraw Hill, New York. Levi, Maurice, International Finance, McGraw Hill Inc., New York. Madura, Jeff, International Financial Management South Western Publishing Company, Cincinnati.
4	Websites	International Monetary Fund
5	Journals	Indian Journal of International Business and Finances Asian Economic Bulletin Asian Journal of Management Cases Economic and Political Weekly Global Journal of International Business Research Harvard Business Review International Business & Economics Research Journal International Business and Management International Trade Journal Journal of Economic Perspectives Journal of International Business Journal of International Business and Economy World Affairs: the Journal of International Issues

Semester	III	Specialization	International Business Management
Course Code	3111B	Type	Subject - Elective
Course Title	Global IT Management		

Course Objectives:	
1	To understand scope and operational aspects of Global I.T. Management
2	To understand regulatory requirements concerning International IT governance
3	To learn to integrate International Business Management with Information Systems Management

Syllabus:		
Unit Number	Contents	Number of Sessions
1	Global Information Systems Overview - Global Information Systems Architecture - Business Drivers and Challenges - Case Studies	5+1
2	Organizing Global Information Systems –Information Systems as a strategic fit with Global Business Strategies – Cultural, Political and Geo-economic Challenges - Role of Information Systems in organizing international business	5+1
3	Managing Global Systems – Problems of Globalization, Localization and Integration – Network Management, Cross Cultural, Regulatory, and Country oriented Issues – Impact of Outsourcing - Case Studies	5+1
4	Technology Issues and Opportunities for Global Value Chains – Computing Platforms and Systems Integration – Role of Internet – Ensuring Connectivity – Software Localization	5+1
5	International IT Governance - Compliance with ISO 17799 / ISO 27001 standards of Information Security – Sarbanes-Oxley regulatory compliance – Business Continuity Management – ISO/IEC 27001 Audit	5+1

Learning Resources:		
1	Text Books	Global Information Technology: Strategy and Challenges, Palvia/Palvia and Harris
2	Reference Books	Management Information Systems, Laudon, Laudon and Dass, Pearson International I.T. Governance Calder and Watkins, Kogan Page India
3	Supplementary Reading Material	-
4	Websites	-
5	Journals	Communications of the ACM MIS Quarterly Journal of the American Society for Information Science & Technology Journal of Intelligent Transportation Systems

Semester	III	Specialization	International Business Management
Course Code	312IB	Type	Subject - Elective
Course Title	Global Logistics & Supply Chains		

Course Objectives:

1	To get acquainted with global dimensions of logistics management
2	To introduce basic operational aspects i.e. procedure, documentations & related legal aspects of global logistics
3	To sensitize students to basics of shipping line industry

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>1.1 Introduction to Global Logistics :International Logistics Development, International Trade Logistics Chain, Shipper's Logistics Requirements in trade, 7R's of Logistics Management, 5 P's of Logistics, International Commercial Terms – Use of Incoterms in a Contract, Incoterms Laws.</p> <p>1.2 Logistics and Documentation: Consular Invoice, Commercial Invoice, Certificate of Origin, certificate of Value, Bill of Lading, Cargo Manifest or Packing List, Health Certificate, Import license, Insurance Certificate, Export Declaration Forms.</p> <p>1.3 Transportation: Modes of transportation, Transport and Communication, Transport activities and Land Use, Transport, Energy and the Environment.</p> <p>1.4 Air Cargo: Transportation of goods through Air, Transportation Infrastructure, World Air Cargo growth, Benefits of Airfreight, Airport classification, International Airports of India, Types of Aircraft, Unit loading devices, Airport Charges, International Country Codes.</p>	5 + 1
2	<p>2.1 Carriage of Goods by Land: Motor Vehicles Act, 1988, Central Motor Vehicles Rules, 1989, Carriers Act, 1865 – Definition of common carrier, Scheduled and Non Scheduled Goods, Railways Act, 1989 – Railway's liability, Merits and Demerits of Railway Transportation, Railway Freight rates.</p> <p>2.2 Carriage of Goods by Sea & Ocean Freight & Freight Calculations: Ocean Shipping Methods, Ocean Freight or Tariff rates, Freight rates terminology used in international shipments, Freight surcharges, Freight Rebates, Conference Discounts, Contract Shippers, Weight or Measure in the Freight Cost Calculation, Freight Adjustments – Currency Adjustment Factor (CAF), Bunker Adjustment Factor (BAF).</p> <p>2.3 Types of Ships: Mail and Supply Ships, Expedition Ships, Coasters, Bulk Carriers, Tankers, Refrigerated Vessels and Reefers, Livestock carriers, LNG Carriers, Car Carriers, Container Ships, Heavy lift Vessels, Tugs, Ro-Ro Vessels.</p>	5 + 1
3	<p>3.1 Shipping Formalities: Booking Shipping Space, Conference Shipping, Non-conference Shipping, Charter Shipping, Charter Party, Shipping Storage, Ocean Shipping procedure.</p> <p>3.2 Shipping Intermediaries: Function and Roles of Custom Brokers, Freight Forwarders and Consolidators, Shipping Agents, Stevedores.</p> <p>3.3 The Major Port Trusts Act, 1963.</p> <p>3.4 Shipping Corporation of India: Products and Services, Bulk Carriers, LNG Carriers, STS Lighterage Operations</p>	5 + 1

4	<p>4.1 Major Ports in India: Present Policy, Privatization Policy, Indian Port Policy Reform, Major Ports in India – Chennai, Cochin, Ennore, JNPT, Kandla, Mormugao, Mumbai, Paradip, NMPT, Pipavav, Tuticorin, Visakapatnam.</p> <p>4.2 Important Sea Routes: Northern Sea route, North Atlantic Route, Mediterranean Route, Panama Route, Baltic Sea Route, Indian Ocean route, Cape Route, South Atlantic Route, North Pacific Route.</p> <p>4.3 International Chamber of Shipping</p> <p>4.4 World's Major Ports: Major Ports and Port codes, Seaports of the world.</p>	5 + 1
5	<p>5.1 Containerization: Origin of containerization, Origin of TEU, Container sizes - dimensions and capacity, Container Flavours, Swap Bodies, Other considerations, Registration, Container Classification numbers, Lift/Stacking fittings, Movement of containers, Recent Developments – Coltainer, Cargosprinter, Safety of container ships, Container Classification – General Cargo service, Specific cargo service, Unit Load Device, Rating – Tare Mass and Pay load of Containers, Marking and Identification of Containers. Benefits of containerization.</p> <p>5.2 Inland Container Depots & Container Freight Stations: Functions, Benefits, Requirements for successful ICD/CFS, Designs and Layout, Equipping the ICD/CFS, Procedures for approval and implementation. Concor – The Multimodal Logistics Professionals.</p>	5 + 1

Learning Resources:

1	Text Books	Logistics Management for International Business – Text and Cases, by Sudalaimuthu and Anthony Raj, PHI, 2009 Edition. Global Operations and Logistics: Text and Cases by Dornier, Ernst, Fender and Kouvelis, Wiley India, 2006
2	Reference Books	Global Logistics – New Directions in Supply Chain Management, Edited by Donald Waters, Kogan Page, Fifth Edition
3	Supplementary Reading Material	Logistics in International Business by Rajiv Aserkar, Shroff Publishers, 2 nd Edition.
4	Websites	
5	Journals	International Journal of Logistics Management Foreign Trade Review International Trade Forum International Trade Journal Journal of International Business and Economy Journal of International Trade & Economic Development Monthly Statistics of International Trade

Semester	III	Specialization	International Business Management
Course Code	3131B	Type	Subject - Elective
Course Title	Designing Organizations for Uncertain Environment		

Course Objectives:	
1	To develop and acquire cognitive framework to understand and analyses the hyper-turbulent international business environment.
2	To gain insights into strategic models that successful organizations deploy to develop their strategies.
3	To learn designing principles to create organizations capable of performing in uncertainty and hyper-turbulence.
4	To appreciate the HR/People systems and processes required for emergent organizational forms

Syllabus:

Unit Number	Contents	Number of Sessions
1	Understanding Emerging Environment: Emergence of Vertical/Type-5 Environment, Understanding Hyper-turbulence, Networks and Business Eco-Systems, Role of Information Technology in Shaping Business Environment, Understanding Impact of Technological Discontinuities, Law of Increasing Returns in Networked, Knowledge-Based Economy	5 + 1
2	Changing Models of Strategy: Strategy-Making under Uncertainty, Application of Complexity/Chaos Theory to Strategy, Strategy as "Sense-Making", Shaping and Adapting to Networks	5 + 1
3	New Forms of Organization: Organizations as Networks, Types of Network Organizations / Clusters, Self-Organizing Systems, Organizational Designs for Change and Innovation, Designing Principle for New Forms of Organizations	5 + 1
4	People and Process issues in Emerging Organizational Forms: Systems for Team-Based Functioning, High Performance Work Systems, Managing Empowerment and Accountability, Designing Roles and Systems for Flat, Networked Organization, Developing Competencies for New Organizational Forms	5 + 1
5	Case Studies	5 + 1

Learning Resources:		
1	Text Books	Adler, Nancy J., International Dimensions of organizational Behaviour, 4th Ed., South western College Publishing Company, Singapore, 2001. Bartlett, C.A. and S. Ghoshal, Managing Across Borders: The Transnational Solution, Century Business London, 1989.
2	Reference Books	Beamish, Paul w., Allen J. Morrison, Phillip M. Rosenzweig and Andrew C. Inkpen, International Management: Text and Cases, Irwin McGraw Hill, Boston, 2000. Fowler, Alam, Negotiation Skills: Skills and strategies, University Press Hyderabad, 1990.
3	Supplementary Reading Material	Helen, D., Management: Managing Across Borders and Cultures, Prentice - Hall, Upper Saddle River, New Jersey, 2000 Pucik, C.A. and Y. Doz and G. Healund, Managing the Global Firm , Routledge, London,1990. Griffin, Ricky W. and Pustay, Michael W, International Business: A Managerial Perspective, Addison Wesley, Readings, 1999.
4	Websites	-
5	Journals	Indian Journal of International Business and Finances Asian Journal of Management Cases Global Journal of International Business Research Harvard Business Review International Business and Management Journal of International Business Journal of International Business and Economy

Semester	III	Specialization	International Business Management
Course Code	314IB	Type	Subject - Elective
Course Title	Legal Dimensions of International Business		

Course Objectives:

1	To acquaint students with the legal dimensions of international business.
2	To enable students to formulate strategies as compatible with laws and treaties governing international business operations.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Legal Framework of International Business: Nature and complexities; International conventions and trade law; Code and common laws and their implications to business; International Business contract – Legal provisions; Payment terms; International sales agreements; Rights and duties of agents and distributors. Contract of Enforcement and Dispute Settlement; International Commercial Arbitration and Enforcement of Foreign Awards.	5 + 1
2	Regulatory Frame work of WTO: Basic principles and charter of GATT/WTO; GATT/WTO; provisions relating to preferential treatment to developing countries, regional grouping, subsidies, technical standards, antidumping duties, and other NTBs, Customs Valuation; Dispute settlement; Implications of WTO to important sector – GATS, TRIP and TRIMs.	5 + 1
3	Regulations and Treaties: Relating to Licensing, Franchising, Joint Ventures, Patents and Trade Marks, Technology Transfer and Telecommunications; Restrictions on trade in endangered species and other commodities as based on international conventions; Taxations Treaties.	5 + 1
4	India Laws and Regulations Governing International Business Transactions: FERA/FEMA, Taxation of foreign income; Foreign investment; Setting up offices and branches abroad.	5 + 1
5	Competition Law: National and International Dimensions. Consumer Law: National and International Dimensions. Electronic Commerce: Regulatory Framework	5 + 1

Learning Resources:		
1	Text Books	Chuah; J., International Trade Law: Questions and Answer Series, Cavendish. London. Chush, J. C. T., Law of International Trade. Sweet and Maxwell, London. Indian Council of Arbitration Case Law on UNCITRAL Model Laws on International Commercial Arbitration. New Delhi.
2	Reference Books	Bansal. A.K., Law of Commercial Arbitration, Universal law House, Delhi. Jain, R., Foreign Exchange Management Law and Practice, Vidhi, New Delhi, 2000. Pam borides, G.P., International Shipping Law: Legislation and Enforcement, Kluwer Law International. London.
3	Supplementary Reading Material	Petersmann, E. Ed., International Trade Law and GATT/WTO Dispute Settlement System. Kluwer Law International London. Trebilcock, M. and Robert Hawse, Regulation of International Trade, Rout ledge, London. Wadhwa, B.C., Relating To Patents, Trademarks, Copyrights and Design Universal Law House, New Delhi.
4	Websites	
5	Journals	Law & Policy in International Business

Semester	III	Specialization	International Business Management
Course Code	315IB	Type	Subject - Elective
Course Title	Global Strategic Management		

Course Objectives:

1	To help students understand strategy making process that is informed integrative and responsive to rapid changes in an organization's globally oriented environment
2	To help students understand tasks of implementing strategy in a global market.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: Strategy making strategy implementing and strategic managing; Globalization and strategic management; Strategic flexibility and learning organization. Competitive strategy and competitive advantage in global market.	5 + 1
2	Hybrid Forms of Economic Organization: Alliances, Networks and Equity Joint Ventures. Typology of Strategic Alliances. Significance of Networks as a Mode of Economic Organization. Knowledge Networks and Technological Innovation in Networks, Networks to Set Industry Standards, Social Networks: Competitive Significance of Relations Beyond Firm Boundaries, Alliance Between Competitors - Pre-competitive Alliances, Market Sharing Alliances	5 + 1
3	Strategic Issues and Alternatives in Globally Competitive Markets: International entry options; Multi-country and global strategies; Concepts of critical markets, global market dominance and global competitiveness, Corporate turnaround, retrenchment and portfolio restructuring strategies; Multinational diversification strategies; Outsourcing strategies; Techniques for analyzing diversified companies.	5 + 1
4	Corporate Diversification Strategies: Building shareholder value; Roles of cost sharing and skills transfer in creating competitive advantage via diversification; Competitive advantages to diversified multinational corporations in a globally competitive business world.	5 + 1
5	Organizational Learning: Organizational Learning Through Alliances, Structures and Systems for Effective Learning for Partners in Alliances, Managing the Process of Alliance Formation: Partner Selection and Negotiation, Contracts and Trust in Managing Partner Conflict in Alliances, Evolution and Termination of Alliance Relationships, Issues in global strategy implementation; strategy evaluation and control.	5 + 1

Learning Resources:		
1	Text Books	<p>Bartlett, C.A. and S. Ghoshal, Transnational Management: Text, Cases, and Readings in Cross-Border Management, Irwin London.</p> <p>Bleeke, J. and D. Emst, Collaboration to Compete, John Wiley, New York.</p> <p>Brooke, M.Z. and M.L. Remmers, International Management and Business Policy, Houghton Mifflin, Boston.</p> <p>Lorange, P. and J. Roos, Strategic Alliances: Formulation, Implementation, and Evolution, Blackwell, Oxford.</p> <p>Miller, Alex and Gregory Dess, Strategic Management, McGraw Hill Publishing Company, New York.</p> <p>Thompson, Arthur A. and A. J. Strickland, Strategic Management, McGraw Hill, New York.</p> <p>Global Strategic Management, Gerardo R. Ungson and Yim-Yu Wong, Segment Books New Delhi, 2009.</p> <p>Strategic Management: Creating Value in a Turbulent World, Peter, Fitzroy and James M. Herbert. Wiley India Pvt. Ltd. New Delhi, 2007.</p> <p>Global Strategic Management, Dr. M. Mahmoudi Maymand, Deep & Deep Publications Pvt. Ltd., New Delhi, 2005.</p> <p>Global Strategic Management, Kamel Mellahi, J. George Frynas, and Paul Finlay, Oxford University Press, New York, 2005.</p> <p>Globalization and Business, John Daniels, Leeh. Radebaugh, and Daniel P. Sullivan, Prentice Hall of India Private Limited, New Delhi, 2002.</p> <p>International Business : Competing in the Global Marketplace : Postscripts 2001, Charles W. L. Hill, McGraw Hill Higher Education, New York, 3rd International Ed., 2001.</p>
2	Reference Books	<p>Davidson, W.H., Global Strategic Management, John Wiley, New York.</p> <p>Ellis, J. and D. Williams, International Business Strategy, Pitman, London, 1995.</p> <p>Eayerweather, W.H. International Business Strategy and Administration Ballinger Publishers, Cambridge Mass.</p> <p>Hitt, Michael A., R.Duane Ireland and Robert E. Hokisson, Strategic Management: Competitiveness and Globalization, 4th Ed, South Western College Publishing, Australia, 2001.</p> <p>Nagadhi, A.R. and M. Welge, Beyond Theory Z: Global Rationalization of American, German and Japanese Multinational Companies, Jai Press, Greenwich, Conn.</p>
3	Supplementary Reading Material	<p>Porter, M.E., Competition in Global industries, Harvard University Press, New York 1996.</p> <p>Porter, M.E., The Competitive Advantage of Nations, Macmillan, London, 1990.</p> <p>Root, F.R. and K. Visudtibhean, International Strategic Management: Management Challenges and opportunities, Taylor and Francis, New York, 1992</p> <p>Salover, G., A. Shepard and J. Podolny, Strategic Management, John Wiley and Sons, 2001.</p> <p>Stone house, George, et. al., Global and Transnational Business: Strategy and Management, John Wiley and Sons Ltd., Chi Chester, 2000.</p> <p>Vernon-Wortzel, H and L. H. Wortzel, Global Strategic Management: The Essentials, John Wiley, New York, 1991.</p> <p>Wheelen, Thomas L. and J. David Hunger, Strategic Management and Business Policy: Emerging 21st Century Global Society, 7th edition, Prentice Hall, New Jersey, 2000.</p>
4	Websites	

5	Journals	Asian Journal of Management Cases Economic and Political Weekly Enterprise and Society: The International Journal of Business History Global Business Review Global Journal of International Business Research Harvard Business Review International Business and Management International Business Research Journal of International Business Journal of International Business and Economy Journal of Asian Business Leadership Excellence South Asian Journal of Management
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University of Pune

Semester	III	Specialization	International Business Management
Course Code	316IB	Type	Subject - Elective
Course Title	International Relations & Management		

Course Objectives:

1	To equip the students with an understanding of the multifaceted phenomenon called international relations
2	To help students understand as to how exactly does the existing international environment affect the decision menu? How does it affect what is possible and probable in state behaviour and what are its effects on business?
3	To expose students to these issues focused on India to discern their effect on the management of business.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Historical Context: The Historical Context of International Relations - The Pre-Westphalian World, The Westphalian System, World Wars I & II & the Cold War. Role of the US - The New World Disorder & the Emerging New World Order. The European Union: Role in Global Security & Business.	5 + 1
2	New World Order : New World Order. The Shift of Balance of Power to Asia, Strategic Alignments in Asia: Convergence of Democracy and Emergence of the Asian bloc, Role of Australia, Resurgent Japan.	5 + 1
3	Indian Perspective - I: India's Security in its Areas of Strategic Interest, The Rise of China & its Implications for Asia, The Taiwan Issue, The Myth of China's Miracle, The Bamboo Network, The Great Game in the Stans of Central Asia. India's Look East Policy: Relations with SE Asia.	5 + 1
4	Indian Perspective - II: The Indian Ocean & India's Maritime Strategy, Pakistan: Future Portents: Democracy & Role of the Military, Terrorism: An International & National Scourge, Future of Afghanistan: Chaos or Stability? Disaster Management & Business.	5 + 1
5	Indian Perspective - III: India's Interaction in Africa: Exploiting an Untapped Market & Seeking Resources, India & West Asia: Transfer of Wealth & the Politics of Oil, Energy Security: Oil, Gas & the Nuclear Deal, Iran & Central Asia- Energy & Allies, Iran as a Nuclear State.	5 + 1

Learning Resources:		
1	Text Books	International Business, Justin Paul, Prentice Hall of India Private Limited, New Delhi, 4th Ed. 2008. International Business, Oded Shenkar and Yadong Luo, John Wiley & Sons Inc., New Delhi, 2004. International Business, S Shajahan, Macmillan India Limited, Delhi, 2006. International Business: An Introduction, Geert Hofstede, Palgrave, New York, 2001. Elements of International Business, S. N. Chary, John Wiley & Sons Inc., New Delhi, 2006. Globalization of Business: Practice and Theory, Abbas, J. Ali, Jaico Publishing House, Mumbai, 2006.
2	Reference Books	
3	Supplementary Reading Material	
4	Websites	-
5	Journals	Indian Journal of International Business and Finances Asian Journal of Management Cases Global Journal of International Business Research Harvard Business Review International Business and Management Journal of International Business Journal of International Business and Economy

Semester	III	Specialization	International Business Management
Course Code	317IB	Type	Subject - Elective
Course Title	Foreign Language for International Business – I		

Course Objectives:

1	To equip the students with a foreign language skill at least to that extent that is required for conducting international business.
2	To provide the student with listening, reading, speaking and writing skills in chosen foreign language.
3	To enhance the vocabulary in the selected Foreign Language.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Socializing: Wishing, thanking and congratulating somebody and to take leave, Talking about his work, his experiences and his professional plans, Introducing his colleagues and the people with whom he is collaborating.	5 + 1
2	Telephonic conversation: Receiving or send simple telephonic message, Identifying the person on phone and his/her request, Spelling, repeating, reformulating, concluding, taking leave.	5 + 1
3	Writing - I: Reading simple and commonly used documents in professional and day-to-day life. Filling up forms in professional or day to day life situation. Taking down notes.	5 + 1
4	Writing - II: Writing (from indications given) about messages, telegram, notes, as well as informal and formal specifically formatted letters, such as business letters.	5 + 1
5	Career related Communication: Organizing the time table. Reading writing and understanding classified ads, a curriculum vitae, and application for a post so that the student can look for a job or a training programme. Interviewing another person and handle a job interview.	5 + 1

Note:

Institute may offer any one of the following foreign languages to the students: SPANISH / FRENCH/ GERMAN/ JAPANESE / CHINESE

Learning Resources:

1	Text Books	Relevant Standard Text Books, Videos, Audio CDs for the language offered to the students.
2	Reference Books	
3	Supplementary Reading Material	
4	Websites	
5	Journals	

MBA SYLLABUS: SEMESTER III
SUPPLY CHAIN MANAGEMENT - SPECIALIZATION

University of Pune

Semester	III	Specialization	Supply Chain Management
Course Code	305SCM	Type	Subject Core
Course Title	Essentials of Supply Chain Management		

Course Objectives:	
1	To make students understand how supply chain impacts all areas of the firm
2	To introduce the basic concepts of supply chain management
3	To provide insights into supply chain's linkages with customer value

Syllabus:

Unit Number	Contents	Number of Sessions
1	21st Century Supply Chains: Concept & definitions of Supply Chain (SC), Physical distribution, Logistics & Supply Chains, Generalized SC Model, Concept of SCM, Role of SC as a value driver: Integrative Management, Responsiveness, Financial Sophistication	6 + 1
2	Supply Chain Structure: Shift from enterprise to network, Structure of a SC, Push based SC, Pull based SC, Tradeoff between Push & Pull, Identifying appropriate Push & Pull Strategy for SC, Commodity & cost centric SC, Agile SC	7 + 2
3	Total SCM: Changing business landscape – driving forces: Shift from Operations to Services, Impact of globalization & technological revolution, Shift from linear SC to collaborative networks, power shifts in the SC- demands for flexibility of partnerships, core competencies, growth in outsourcing, Increased complexity of processes	7 + 2
4	SCM Building Blocks: Overview of customer focus & demand, resources & capacity management, procurement & supplier focus, inventory management, operations management, distribution management in SCM	7 + 2
5	Customer Value: Empowered consumer, Customer focused Marketing & SC service outputs, customer service – availability, operational performance, reliability. Customer satisfaction – customer expectations, enhancing customer satisfactions, limitations of customer satisfaction. Customer success – achieving customer success, value added services, customer value requirement mapping, CRM	8 + 3

Learning Resources:		
1	Text Books	Supply Chain & Logistics Management by Bowersox, Closs & Cooper, TMGH, 2 nd Edition. Designing & Managing the SC – Concepts, Strategies & Case studies by Levi, Kaminsky et. al., TMGH, 3 rd Edition. Supply Chain Management: Strategy Planning & Operations by Sunil Chopra, Peter Meindl, Pearson, 1 st Edition. Supply Chain Management Process, System & Practice by N.Chadrasekaran, Oxford, 1 st Edition Total Supply Chain Management by Basu & Wright, Elsevier, 1 st Edition.
2	Reference Books	Logistics Management & Strategy by Harrison and van Hoek, Prentice Hall, 2005. Supply Chain Management by Mentzer, Response Books, 2007 Logistics Management : The Supply Chain Imperative by Vindo Sople, Pearson Education, 2007
3	Supplementary Reading Material	Competitive Advantage, Michael Porter, Free Press, 1985 Latest Economic Survey of India – Chapter on Infrastructure and Communications. New Directions in Supply Chain Management: Technology & Strategy Implementation by Tonya Boone and Ram Ganeshan, Jaico Publishing, 2007
4	Websites	http://csmp.org/ www.supplychain.org
5	Journals	Logistics And Supply Chain Practices In India by Srivastava, Samir K., Vision , Jul-Sep2006, Vol. 10 Issue 3 What Is the Right Supply Chain for Your Product? by Fisher, Marshall L., Harvard Business Review, Mar/Apr97, Vol. 75 Issue 2 Supply Chain Management: More Than a New Name for Logistics, by Cooper, Martha C.; Lambert, Douglas M.; Pagh, Janus D., International Journal of Logistics Management, 1997, Vol. 8 Issue 1 Customer Service, Customer Satisfaction, and Corporate Performance In The Service Sector, by Dresner, Martin; Kefeng Xu., Journal of Business Logistics, 1995, Vol. 16 Issue 1 Supply Chain Management: Relationships, Chains and Networks, by Harland, C. M., British Journal of Management, Mar96 , Special Issue, Vol. 7

Semester	III	Specialization	Supply Chain Management
Course Code	306SCM	Type	Subject Core
Course Title	Logistics Management		

Course Objectives:	
1	To make students understand the role and importance of logistics in modern day economy.
2	To discuss the relationship between logistics and other functional areas.
3	To analyze logistics systems from different perspectives to meet desired corporate objectives.

Syllabus:		
Unit Number	Contents	Number of Sessions
1	Context of Logistics: Introduction, definitions, logistics in the economy a macro perspective, aim of logistics, activities of logistics, value added role of logistics	5 + 1
2	Logistics in the firm: Micro dimensions of logistics, interface with operations, manufacturing, marketing, supply chain, Problems with fragmented logistics, Integrating logistics within an organization, integrating logistics along the SC,	7 + 2
3	Approaches to analyzing logistics systems: Materials Management v/s physical distribution, Cost centers, nodes v/s links, logistics channel, cost perspective & level of optimality, short run or static analysis, long run or dynamic analysis	8 + 2
4	Logistics Relationships: Types of relationships, Competitive relationship, product relationship, spatial relationship, intensity of involvement, logistics outsourcing activities – concept & types of 3PL, 4PL, need for collaborative relationships	7 + 2
5	Service Response Logistics: Overview of service Operations – service productivity, global service issues, service strategy development, service delivery systems, service location & layout, primary concerns of service response logistics – service capacity, waiting times, distribution channels, service quality	8 + 3

Learning Resources:		
1	Text Books	The Management of Business Logistics by Coyle, Bardi, Langley, Cengage Learning India Ed, 7 th Edition. Logistics – An introduction to SCM by Donald Waters, Palgrave Macmillan, 1 st Edition Principles of SCM – A Balanced Approach by Wisner, Leong, Tan , Cengage Learning India Ed., 1 st Edition
2	Reference Books	Logistics and Supply Chain Management: Cases and Concepts by Raghuraman and Rangaraj, Macmillan Business Books
3	Supplementary Reading Material	Business Logistics: Management of Physical Supply and Distribution, Heskett, Ivie and Glaskowsky, Ronald Press, New York.
4	Websites	http://www.logisticsmgmt.com/ www.asianclm.com/
5	Journals	Principles Of Logistics Management by Payne, Stanley L.; Kramer, Walter H., Journal of Marketing, Apr1967, Vol. 31 Issue 2, The Principles of Logistics Revisited by Voorhees, Roy Dale; Sharp, Merrill Kim., Transportation Journal (American Society of Transportation & Logistics Inc), Fall78, Vol. 18 Issue 1, A Survey of Third-party Logistics (3PL) Service Providers in India by Mitra, Subrata., IIMB Management Review , Jun2006, Vol. 18 Issue 2 The Emerging Role of the Third-Party Logistics Provider (3PL) as an Orchestrator by Zacharia, Zach G.; Sanders, Nada R.; Nix, Nancy W., Journal of Business Logistics, 2011, Vol. 32 Issue 1 Selection process in logistics outsourcing - a view from third party logistics provider by Yee Ming Chen; Meng-Jong Goan; Pei-Ni Huang., Production Planning & Control, Apr 2011, Vol. 22 Issue 3

Semester	III	Specialization	Supply Chain Management
Course Code	307SCM	Type	Subject - Elective
Course Title	Managing Material Flow in Supply Chains		

Course Objectives:	
1	To understand flow of materials in a Supply Chain
2	To appreciate the role of Transportation and Warehouse Management
3	To understand the essentials of Packaging and Materials Handling from Logistics point of view
4	To understand Government statutory requirements related to Logistics Management

Syllabus:

Unit Number	Contents	Number of Sessions
1	Flows in SC: Forward & Reverse SC, Product, Services, Information, Funds, Demand, Forecast flows in Upstream & Downstream direction	4 + 1
2	Transportation Infrastructure & Operations: Transport functionality, Principles, Mode Selection criteria, Transportation Service Levels, Transportation Economics and Pricing – economic drivers, costing, carrier pricing strategy. Transport Administration – operational management, consolidation, negotiation, control, Documentation – L/R, B/L, AWB, IGM	5 + 2
3	Warehouse Management: Warehousing – economic benefits, service benefits. Warehousing Operations – handling, storage. Warehouse Ownership Arrangements, Warehouse Decisions – site selection, design, product mix analysis, expansion, material handling, layout, Warehouse Management System	5 + 1
4	Packaging & Materials Handling: Packaging Perspectives, Packaging for Materials Handling Efficiency – package design, unitization, communication. Material Handling – basic considerations, mechanized systems, semi-automated, automated Systems, information directed Systems, special handling considerations	5 + 1
5	Role of Government in Logistics: Overview of CST, LST, Implications of proposed GST, Excise Duties, Octroi, Entry Tax, CENVAT, Motor Vehicles Act, Customs Act	5 + 1

Learning Resources:		
1	Text Books	Supply Chain & Logistics Management by Bowersox, Closs & Cooper, TMGH, 2 nd Edition. Logistics and Supply Chain Management- Cases and Concepts by G. Raghuram, N Rangaraj, Macmillan India, 1 st Edition. Fundamentals of SCM Twelve drivers of competitive advantage by John Mentzer, Sage Publication, 1 st Edition
2	Reference Books	Business Logistics/Supply Chain Management by Ronald Ballou, Pearson Education, 5 th Edition. A Logistics Approach to Supply Chain Management by Coyle, Langley, Gibson, Novack, Bardi, Cengage Learning, India Edition, 2009.
3	Supplementary Reading Material	Advanced Supply Chain Management by Poirier C C, Berrett, Koehler Publishers, 1999.
4	Websites	http://www.inboundlogistics.com/cms/ http://www.ciilogistics.com/ http://www.tcil.com/tcil/ http://cscmp.org/
5	Journals	Commodity Futures Markets, Warehouse Receipts and the Dynamics of Warehousing Infrastructure: The Indian Scenario by Pillai, Manoj., IUP Journal of Infrastructure, Dec2010, Vol. 8 Issue 4 What Can You Do About Logistics in India?, Frenzel, David, World Trade: WT100, Mar2011, Vol. 24 Issue 3 Technological Innovations in the Indian Logistics Industry: The Case of Freight Handling, Srinivas, Kolluru; Krishna, Kolluru., IUP Journal of Infrastructure, Sep2009, Vol. 7 Issue 3/4,

Semester	III	Specialization	Supply Chain Management
Course Code	308SCM	Type	Subject - Elective
Course Title	Inventory Management		

Course Objectives:

1	To understand the Process of Aggregate Planning and its link with Inventory Management
2	To understand concept of Supply Chain Inventory and study a few basic variants of EOQ models
3	To recognize role and importance of Supply Chain Inventory Management in delivering perfect customer order
4	To acquaint with safety and environmental aspects of Inventory Management

Syllabus:

Unit Number	Contents	Number of Sessions
1	Aggregate Planning & Inventory Management: Introduction, Operations Planning, Aggregate Production Plan – Chase Production Strategy, Level Production Strategy, Mixed Production Strategy. MPS, Dependent & Independent Demand. Bill Of Materials, Overview of MRP & MRP II	4 + 1
2	Managing SC Inventory & Delivering Perfect Customer Orders-I: Understanding SC Inventory – types of inventory, inventory related costs, Inventory Investment – Asset or Liability? The Right reasons for Investing in Inventory – (support production, operational & customer service requirements, hedge against marketplace uncertainty, opportunity buying). The Wrong reasons for Investing in Inventory – (poor quality & material yield, unreliable supplier delivery, extended order-cycle times, inaccurate demand forecasts, specifying custom items for standard applications, extended material pipelines, inefficient manufacturing processes). Special Applications of EOQ Approaches – adjusting simple EOQ model for modal choice decision, adjusting simple EOQ model for volume transportation rates, adjusting simple EOQ for private carriage	6 + 1
3	Managing SC Inventory & Delivering Perfect Customer Orders-II: Managing Inventory Investment – Three V model of inventory management, achieve perfect record integrity, improve product forecasting, Standardize and Simplify product design, leverage companywide purchase volume, use suppliers for on-site inventory management, develop SC planning systems and support structure, Reduce Supplier-buyer cycle times, Delivering the Perfect Customer Order – MRP, DRP, SC inventory planning, automated inventory tracking system, Inventory at Multiple Locations – The Square Root law, inventory for outbound systems, Demand Pull Approach to manage Inventory	5 + 1
4	Safety & Environmental Aspects of Inventory Management: Environmental Aspects of Storage – identification of land contamination, water and air contamination & monitoring for fugitive emission, spillages, leakages, dumps, & disposables. Explosive Storage - Petroleum act - storage of explosive – precautions during loading, unloading, storage, transportation & usage, Gas Cylinder rules, Fire and other Hazards & precautions for mitigation, Cross contamination & Hygiene precaution in case of chemicals & pharmacy food storage material, Hazardous Waste Storage and Management – Storage and disposal methods and legal compliance	5 + 1
5	Key Operational Aspects in SC: Creating the Lean SC – JIT Purchasing, JIT Transportation and JIT Production. Kanban, VMI	4 + 1

Learning Resources:		
1	Text Books	Purchasing & Supply Chain Management by Monczka, Trent, Handfield, Thomson South Western, 3 rd Edition Supply Chain Management Process, System & Practice by N.Chadrasekaran, Oxford, 1 st Edition
2	Reference Books	Purchasing & Supply Chain Management by Dobler, Burt, TMGH, 6 th Edition.
3	Supplementary Reading Material	The Management of Business Logistics by Coyle, Bardi, Langley, Cengage Learning, 5th Indian Reprint
4	Websites	www.apics.org/
5	Journals	Sharpening Inventory Management by Armstrong, David J., Harvard Business Review, Nov/Dec85, Vol. 63 Issue 6 Empowering Kanban through TPS - Principles - An Empirical Analysis of the Toyota Production System, Thun, Jorn-Henrik; Druke, Martin; Grubner, Andre, International Journal of Production Research, Dec2010, Vol. 48 Issue 23 Kanban, MRP, and Shaping The Manufacturing Environment by Krajewski, Lee J.; King, Barry E.; Ritzman, Larry P; Wong, Danny S., Management Science, Jan1987, Vol. 33 Issue 1 Prerequisites to Vendor-managed Inventory by Niranjana, Tarikere T.; Wagner, Stephan M.; Nguyen, Stephanie M., International Journal of Production Research, Feb2012, Vol. 50 Issue 4 A Logistics Network Design Model With Vendor Managed Inventory by Shu, Jia; Li, Zhengyi; Shen, Houcai; Wu, Ting; Zhong, Weijun., International Journal of Production Economics, Feb2012, Vol. 135 Issue 2 Adaptive Fuzzy Vendor Managed Inventory Control For Mitigating The Bullwhip Effect In Supply Chains by Kristianto, Yohanes; Helo, Petri; Jiao, Jianxin (Roger); Sandhu, Maqsood., European Journal of Operational Research, Jan2012, Vol. 216 Issue 2 Study of Vendor-Managed Inventory practices in Indian industries by Atul B. Borade; Satish V. Bansod., Journal of Manufacturing Technology Management, Oct2010, Vol. 21 Issue 8

Semester	III	Specialization	Supply Chain Management
Course Code	309SCM	Type	Subject - Elective
Course Title	Purchasing & Supplier Relationship Management - I		

Course Objectives:

1	To emphasize the managerial perspective of core tasks and challenges in effectively managing the purchasing function within the context of integrated supply chain.
2	To make the students aware of the different demands placed on the purchasing and supply chain managers by business stakeholders.
3	To help the students understand the impact of purchasing on competitive success and profitability of modern day organizations.
4	To provide an in-depth understanding of the fundamentals surrounding the operational aspects of purchasing.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Purchasing Process, Policy & Procedures: Purchasing Objectives, Responsibilities of Purchasing, Types of Purchases, Improving Purchase Process, Purchasing Procedures, Policy Overview – What makes an effective Policy? Advantages & Disadvantages of Policies, Policies defining - Role & conduct of Purchasing, Buyer-Supplier Relationship, Operational Issues, Ethical considerations in Purchasing	5 + 1
2	Organizing the Purchasing Function: Purchase Function Position Within the Organization Structure, Factors affecting Purchasing's Position, Reporting of Purchasing function, Organizing of Purchasing, Separating Operational & Strategic Purchasing, Advantages & disadvantages of centralized, decentralized Purchasing, Hybrid Purchasing Structure	5 + 1
3	Strategic Sourcing – Supplier Evaluation & Selection: Linking Purchasing and Corporate Strategy, Translating Corporate Objectives into Purchasing Goals, Translating Purchasing Objectives into Purchasing Goals, Purchasing Strategy Development Process, Types of Purchasing Strategies, Supply Base Optimization, Critical Role of In-sourcing / Outsourcing, The In-sourcing / Outsourcing Decision Process, Make or Buy, Supplier Evaluation and Selection Process, Need for Supplier Selection, Identifying key sourcing requirements, Evaluation and Selection, Key Supplier Evaluation Criteria	5 + 1
4	Supplier Quality Management: Overview of Supplier Quality Management – What is Supplier Quality? Why be Concerned with Supply Quality? Factors Affecting Purchasing's Role in Managing Supplier Quality, Supplier Quality Management using Total Quality Perspective, Defining Quality in Terms of Customers and their Requirements, Pursuing Quality at the Source,	5 + 1
5	Negotiation & Contracts Management: Objectives of negotiation, when to negotiate, The negotiation Process, Preparation, Establishing the Objectives, Dynamics of Negotiation, Phases in face-to-face negotiation, Negotiation Techniques – traditional, collaborative, price analysis, cost analysis. Types of Contracts – Fixed Price, Cost based / Indexation, Long term, Short term. Consideration when selecting contract types, How to write a Contract. Essential elements of Contract, Purchase Order (P.O), Difference between P.O & Contract	5 + 1

Learning Resources:		
1	Text Books	Purchasing & Supply Chain Management by Monczka, Trent, Handfield, Thomson South Western, 3 rd Edition. Purchasing & Supply Chain Management by Lysons and Farrington, Pearson Education, 2010.
2	Reference Books	Purchasing & Supply Chain Management by Dobler, Burt, TMGH, 6 th Edition. New Directions in Supply Chain Management: Technology & Strategy Implementation by Tonya Boone and Ram Ganeshan, Jaico Publishing, 2007 Extending the Supply Chain by Boyer, Forhlich and Hult, PHI, 3 rd Indian Reprint, 2009
3	Supplementary Reading Material	Organizational Buying Behaviour by Webster and Wind, Prentice Hall, 1972 Category Management in Purchasing: A Strategic Approach to maximize business profitability by Jonathan O'Brien Kogan Page.
4	Websites	www.cips.org www.eipm.org
5	Journals	Purchasing Competence: A Stakeholder-Based Framework for Chief Purchasing Officers by Kern, Daniel; Moser, Roger; Sundaresan, Naveen; Hartmann, Evi., Journal of Business Logistics, 2011, Vol. 32 Issue 2 Understanding how Formal and Informal Communication Affect Purchasing, Manufacturing and Logistics Integration by Andrea, Furlan; Arnaldo, Camuffo; Romano, Pietro., Advances in Management, Jul2011, Vol. 4 Issue 7 An Empirical Study of the Relationships among Purchasing Skills and Strategic Purchasing, Financial Performance, and Supplier Responsiveness by Carr, Amelia S.; Smeltzer, Larry R., Journal of Supply Chain Management, Summer2000, Vol. 36 Issue 3 World-Class Purchasing Skills: An Empirical Investigation by Giunipero, Larry C.; Percy, Dawn H., Journal of Supply Chain Management, Fall2000, Vol. 36 Issue 4 The Seven Cs of Effective Supplier Evaluation by Carter R, Purchasing and Supply Chain Management, April, 1995.

Semester	III	Specialization	Supply Chain Management
Course Code	310SCM	Type	Subject - Elective
Course Title	Six Sigma		

Course Objectives:	
1	To provide a comprehensive understanding of six sigma
2	To introduce the six sigma methodology and philosophy
3	To learn how to manage change and sustain benefits
4	To learn how to listen and map customer requirements

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Enterprise-wide Deployment:</p> <p>1.1 Six Sigma and Lean: Brief history of performance initiatives- Quality Control, TQM, Cost of Quality, Customer quality Management, SPC, Reengineering, Six Sigma, Theory of Constraint, Lean manufacturing.</p> <p>1.2 Business Process Management: Introduction to Six Sigma-As a metric, As a methodology, As a management System. Six sigma Evolution and approach Lean as a Business Management Strategy, Key elements of lean. Types of lean initiatives, Implementing lean initiatives</p>	5 + 1
2	<p>DMAIC model for implementing Six Sigma:</p> <p>2.1 Define: Project Selection, Developing the team, DMAIC & DMADV, Deliverables, Tollgate Questions</p> <p>2.2 Measure: Determining X variables, Cause and Effect Diagram & Matrix, Overview of MSA, Data Collection Plan – Forms, Baselining the y data, DPMO, Capability Indices, COPQ, Yield, Tollgate Questions</p> <p>2.3 Analyze: Tools for identifying Root Causes: Histogram, Boxplot, Scatter Plot, Matrix Plot, DotPlot, Run Chart, Multi-Vari Chart, 5 Why's</p> <p>2.4 Improve: Generating Solutions, Random Stimulation, Six Thinking Hats, Mind Mapping, Challenge Assumptions, Decision Making Tools for Selecting Solutions – Pairwise Ranking, Solution Matrix, Force Field Analysis, Costs and Benefits, Pilot Plan, Potential Problem Analysis – Mistake Proofing, Risk Assessment Matrix and Control Assessment Matrix, FMEA, Contingency Plan, Verification Plan, Tollgate Questions</p> <p>2.5 Control: Solution Planning, Process Control Plan, Review Meetings, Updated flowcharts & procedures, Control Charts, Out Of Control Action Plan, Project Conclusion Activities</p>	7 + 1
3	<p>Six Sigma Impact measurement: Financial and Performance measurement: Lack of Clear Goals and Metrics linked to Measurable Business Goals, Mismatches between Traditional Accounting and Improvement Campaigns. Metrics That Impact – Revenue Growth, Cost Savings, Productivity Improvement, Reduced Cost of Poor Quality, Cash Flow Improvement, Faster product / service cycle times, Freed up engineering and /or sales / service time, Freed up other indirect time, Cost avoidance savings. Seven Elements of Six Sigma Scorecard</p>	5 + 1

4	Six Sigma in non-manufacturing environments: MSA in the DMAIC Cycle. MSA Psychology. Why Non-Manufacturing Processes are Different, MSA Repeatability & Reproducibility (R&R) Studies. Gauge R & R. Comparison of MSA Acceptance Criteria	5 + 1
5	Projects in Six Sigma-Use of DMAIC Cycle	3 + 1

Learning Resources:

1	Text Books	The Six Sigma Black Belt Handbook by MacCarty, Daniels, Bremer and Gupta, TMGH, 2010 Edition Juran Institute's Six Sigma Breakthrough and Beyond by De Feo and Barnard, TMGH. What is Six Sigma? by Peter Pande, TMGH Six Sigma Management by Blashka, TMGH All about Six Sigma by Warren Brussee, TMGH.
2	Reference Books	TPS-Lean Six Sigma by Hubert Ramprasad, Sara Books Pvt.Ltd.
3	Supplementary Reading Material	The Certified Six Sigma Black Belt Hand Book, Donald Benbow, Pearson Publication Achieving Business Excellence by Pravin Rajpal, Om Books International, India.
4	Websites	http://asq.org
5	Journals	What , Why and How: The importance of statistical thinking for Six Sigma by Krishnamoorth, K. S., Industrial Engineer: IE, Oct 2011, Vol. 43, Issue 10 In pursuit of implementation patterns: the context of Lean and Six Sigma by Shah, R.; Chandrasekaran, A.; Linderman, K., International Journal of Production Research, Dec2008, Vol. 46 Issue 23 Critical analysis of Six Sigma Implementation by Moosa, Kamran; Sajid, Ali. Total Quality Management & Business Excellence, Jul2010, Vol. 21 Issue 7

Semester	III	Specialization	Supply Chain Management
Course Code	311SCM	Type	Subject - Elective
Course Title	Supply Chain Planning		

Course Objectives:	
1	To understand essentials of Demand Management
2	To get acquainted to Supply Chain Aggregate Planning
3	To understand how to manage predictable variability in Supply Chain
4	To recognize the role of Network Planning and understand basic Network Planning Design Models

Syllabus:		
Unit Number	Contents	Number of Sessions
1	Forecasting: Concept and definition of Forecasting & Demand, Role of Forecasting in SC, Traditional Forecasting Methods – Judgment Methods, Market Research Methods, Time Series Methods, Causal Methods. Selection of Appropriate Forecasting technique, Risks in Forecasting – forecasting error	5 + 1
2	Demand Management: Collaborative Planning, Forecasting & Replenishment (CPFR). Order fulfillment & Order Management. Customer Service Level & Expected cost of stock outs (Numericals Expected)	5 + 1
3	Aggregate Planning in SC: Concept of Aggregate Planning & its role in SC. Aggregate Planning Strategies, Aggregate Planning for Services, Aggregate Planning using MS-Excel, Role of IT in Aggregate Planning, Aggregate Planning in Practice	5 + 1
4	Managing Predictable Variability in SC: Decision Environment of SC – external factors responsible for decisions, Concept of Variability, Responding to predictable variability, Managing Supply, Managing Demand, Impact of seasonality	5 + 1
5	Network Decisions: Choices of Network Configurations – direct shipping, distribution through intermediary, customer pick up, Challenges in Network Configuration. Models – Strategic Facility Location Model with Single Capacity Choice, Strategic Facility Location Model with Two Capacity Choices, Demand Allocation Across different Facilities with Fixed Capacities, Gravity Location Model, Uncertainty and Application of Probability	5 + 1

Learning Resources:		
1	Text Books	Supply Chain Management – Strategy, Planning and Execution by Sunil Chopra, Peter Meindl, D V Kalra, Pearson Education, 3 rd Edition Supply Chain Management Process, System & Practice by N.Chadrasekaran, Oxford, 1 st Edition
2	Reference Books	The Management of Business Logistics: A Supply Chain Perspective by Coyle, Bardi and Langley, Cengage Learning – India 7 th Edition.
3	Supplementary Reading Material	Managing the Supply Chain: A Strategic Perspective by Gattorna and Walters, Palgrave. A Logistics Approach to Supply Chain Management by Coyle, Langley, Gibson, Novack, Bardi, Cengage Learning, India Edition, 2009.
4	Websites	http://www.ibf.org/
5	Journals	Mapping the Future of Supply Chain Management: a Delphi study by Melny K, Steven A.; Lummus, Rhonda R.; Vokurka, Robert J.; Burns, Laird J.; Sandor, Joe., International Journal of Production Research, Aug2009, Vol. 47 Issue 16 Aligning Demand Management with Business Strategy by Jim R and Langabeer II, Supply Chain Management Review, May/June 2000. ABC of Collaborative Planning Forecasting and Replenishment by Ireland, Ron., Journal of Business Forecasting, Summer2005, Vol. 24 Issue 2 Collaborative Planning, Forecasting & Replenishment (CPFR): Realizing the Promise of Efficient by Sherman, Richard J., Journal of Marketing Theory & Practice, Fall 98, Vol. 6 Issue 4

Semester	III	Specialization	Supply Chain Management
Course Code	312SCM	Type	Subject - Elective
Course Title	Supply Chain Coordination		

Course Objectives:	
1	To understand role and importance of business functional coordination across the Supply Chain
2	To know the impact of ineffective Supply Chain coordination and its business implications
3	To understand how managerial levers and partnerships aid in achieving Supply Chain coordination

Syllabus:

Unit Number	Contents	Number of Sessions
1	Coordinate the Traditional Business Functions Across the Company and Across the SC: Functional Coordination, Supply Chain Relationships, Failing to coordinate Sales Function with SC Capacity, Failing to coordinate Industrial Service SC, Coordinate Retail Functions for Market Expansion, Coordinating Traditional Retail Functions for SC Economics, Coordinating R&D, Order Processing and Inventory Management	5 + 1
2	SC Coordination & Bull Whip Effect: Challenges in SC Coordination, Concept of Bull Whip Effect – impact on manufacturing cost, inventory cost, replenishment lead time, transportation cost, labour cost for logistics, product availability & relationships across the SC, Obstacles to Coordination in SC – incentive obstacles, Information Processing Obstacles, Operational Obstacles, Pricing Obstacles, Behavioural Obstacles, Role of IT in SC Coordination	5 + 1
3	Managerial Levers to achieve SC Coordination: Aligning of Goals & Incentives, Improving Information Accuracy, Improving Operational Performance, Designing Pricing Strategies to stabilize orders, Building Partnerships & Trust.	5 + 1
4	Building Strategic Partnerships within a SC: Deterrence Based View, Process Based View, Accessing Value of Relationship, Identifying Operational Roles & Decision Rights for each party, Creating Effective Contracts, Designing Effective Conflict Resolution Mechanisms.	5 + 1
5	Collaborative Planning, Forecasting & Replenishment: Retail Event Collaboration, DC Replenishment Collaboration, Store Replenishment Collaboration, Collaborative Assortment Planning, Organizational & Technology Requirements for successful CPFR, Risks & Hurdles for CPFR Implementation	5 + 1

Learning Resources:		
1	Text Books	Fundamentals of Supply Chain Management by John Mentzer, Response Books, 1 st Edition Supply Chain Management – Strategy, Planning and Execution by Sunil Chopra, Peter Meindl, D V Kalra, Pearson Education, 3 rd Edition Supply Chain Management Process, System & Practice by N. Chadrasekaran, Oxford, 1 st Edition
2	Reference Books	The Management of Business Logistics: A Supply Chain Perspective by Coyle, Bardi and Langley, Cengage Learning – India 7 th Edition
3	Supplementary Reading Material	A Logistics Approach to Supply Chain Management by Coyle, Langley, Gibson, Novack, Bardi, Cengage Learning, India Edition, 2009. Industrial Dynamics by Jay Wright, Forrester, 1961
4	Websites	www.apics.org
5	Journals	The Bullwhip Effect in Supply Chains by Lee, Hau L; Padmanabhan, V. and Whang, Seungjin, Sloan Management Review, 1997 Volume 38 Issue 3 Taming the bullwhip by Lee, H.L., Journal of Supply Chain Management 2010, Volume 46, Issue 1 Capacity Choice and Allocation: Strategic Behavior and Supply Chain Performance by Cachon, Gérard P.; Lariviere, Martin A., Management Science, Aug1999, Vol. 45 Issue 8 Quantifying the Bullwhip Effect in a Simple Supply Chain: The Impact of Forecasting, Lead Times and Information by Chen, Y. F., Z. Drezner, J. K. Ryan and D. Simchi-Levi, Management Science, 2000, Volume 46. Information Sharing and Coordination Mechanisms for Managing Uncertainty in Supply Chains: A Simulation Study by Datta, Partha Priya; Christopher, Martin G., International Journal of Production Research, Feb2011, Vol. 49 Issue 3 Coordinating for Flexibility in e-Business Supply Chains by Gosain, Sanjay; Malhotra, Arvind; El Sawy, Omar A., Journal of Management Information Systems, Winter2004/2005, Vol. 21 Issue 3

Semester	III	Specialization	Supply Chain Management
Course Code	313SCM	Type	Subject - Elective
Course Title	Decision Modeling for Supply Chains		

Course Objectives:

1	To know how to model typical Supply Chain Domain Problems
2	To understand use of MS- Excel in solving typical Supply Chain Domain Problems

Syllabus:

Unit Number	Contents	Number of Sessions
1	Overview of MS – Excel Advance Capabilities and Functions	3 + 1
2	Linear Programming Models: Make Buy Decision Problem, Transportation Applications – Vehicle loading Problem, Sensitivity Analysis for Profit Maximization, Cost Minimization	6 + 1
3	Transportation Models: LP Formulation for transportation problem, Transportation involving transshipment, Maximal flow model, Shortest Path Model	5 + 1
4	Integer Programming Model, Goal Programming Model & Nonlinear Programming Model: New factory Decision Problem (IP), Product Mix Problem (Goal), Profit Maximization Problem (NLP)	6 + 1
5	Decision Making Models (based on Decision Trees): Using TreePlan to solve decision tree problems with Excel	5 + 1

Learning Resources:

1	Text Books	Managerial Decision Modeling with Spreadsheets by Balakishnan, Render, Stair, Pearson, 2 nd Edition
2	Reference Books	Excel Models for Business and Operations Management by Barlow, Wiley-India, 2 nd Edition.
3	Supplementary Reading Material	Modeling the Supply Chain by Jeremy Shapiro, Cengage Learning, 2 nd Edition Supply Chain Modeling & Solutions by B.S. Sahay & A.K. Gupta, Macmillan India Ltd., 1 st Edition
4	Websites	http://logistics.about.com/od/supplychainmodels/Modelling_the_Supply_Chain.htm
5	Journals	Overcoming Spreadsheet Risk in Supply Chain Modeling by Galbreth, Michael R.; LeBlanc, Larry J., Journal of Business Logistics. 2010, Vol. 31 Issue 2, p21-33 Design and Use of Microsoft Excel Solver by Fylstra, Daniel; Lasdon, Leon; Watson, John; Warren, Allen. Interfaces. (Sep-Oct) 1998, Vol. 28, 5, p29-55. Network Modeling Tools: Enhancing Supply Chain Decision Making by Jiminez, S., T.Brown and J.Jordan, Strategic Supply Chain Alignment, 1998, ed. J. Gattorna. Andershot, Eng.: Gower

Semester	III	Specialization	Supply Chain Management
Course Code	314SCM	Type	Subject - Elective
Course Title	Theory of Constraints		

Course Objectives:

1	To imbibe in the students the TOC thinking process.
2	To provide insights into managing a business when there are constraints and resolving those by logical thinking.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Thinking Process: Introduction to Theory of Constraints (TOC), Tools of TOC, Where is TOC applicable? What is a constraint, TOC's thinking process and Human Being, Terminology used in the thinking process, Steps to implement in the thinking process, Current Reality Tree, Conflict Resolution Diagram, Future Reality Tree, Prerequisite Tree, Transition Tree, Three Cloud Method.	5 + 1
2	2.1 Finance and Measures: Economic Decisions, TOC and Product Costing, Economic Decisions using TOC Costing. 2.2 Project Management: Phases of Project Management, Common problems in Project Environment, Critical Chain project Management – A TOC approach.	5 + 1
3	Drum-Buffer-Rope Solution: Introduction, The Drum – The MPS of the Capacity Constraint Resource, Implementing Drum-Buffer-Rope, Implementing Drum-Buffer-Rope on the shop floor, MPS using Drum-Buffer-Rope Scheduling method.	5 + 1
4	Theory of Constraints in Supply Chain Management: Introduction, TOC in distribution Solution, Drum-Buffer-Rope in distribution	5 + 1
5	Cases: Cases in application of TOC thinking process, TOC in Manufacturing,	5 + 1

Learning Resources:

1	Text Books	Theory of Constraints by S K Mukhopadhyay, Jaico Books. The Goal by E M Goldratt and Cox J, Great Barrington, North River
2	Reference Books	What is the thing called Theory of Constraints? by E M Goldratt, Great Barrington, North River The Goal by E M Goldratt and Cox J, Great Barrington, North River It's Not Luck by E M Goldratt, Great Barrington, North River
3	Supplementary Reading Material	Essays on Theory of Constraints by E M Goldratt, Great Barrington, North River Critical Chain by E M Goldratt, Great Barrington, North River
4	Websites	http://www.goldratt.com/ http://www.scienceofbusiness.com/home/what-is-theory-of-constraints-toc/ http://www.tocico.org/

5	Journals	<p>A Tutorial on Project Management from a Theory of Constraints Perspective by Blackstone, John H.; Cox, James F.; Schleier, John G., <i>International Journal of Production Research</i>, Dec2009, Vol. 47 Issue 24.</p> <p>Theory of Constraints at UniCo: Analyzing The Goal as a fictional case study by Tibben-Lembke, Ronald S., <i>International Journal of Production Research</i>, Apr2009, Vol. 47 Issue 7.</p> <p>Implementing Theory of Constraints in a traditional Japanese Manufacturing Environment: The case of Hitachi Tool Engineering by Umble, M.; Umble, E.; Murakami, S., <i>International Journal of Production Research</i>, 5/15/2006, Vol. 44 Issue 10.</p> <p>Determination of buffer sizes for drum-buffer-rope (DBR)-controlled production systems by Ye, T.; Han, W., <i>International Journal of Production Research</i>, May2008, Vol. 46 Issue 10.</p> <p>Modified drum-buffer-rope scheduling mechanism for a non-identical parallel machine flow shop with processing-time variation by Sirikrai, V.; Yenradee, P., <i>International Journal of Production Research</i>, 2006, Vol. 44 Issue 17.</p> <p>Comparisons between drum-buffer-rope and Material Requirements Planning: a case study by Steele, Daniel C.; Philipoom, Patrick R.; Malhotra, Manoj K.; Fry, Timothy D., <i>International Journal of Production Research</i>, 2005, Vol. 43 Issue 15.</p> <p>Order review/release and lot splitting in drum-buffer-rope by Russell, G. R.; Fry, T. D., <i>International Journal of Production Research</i>, Mar1997, Vol. 35 Issue 3.</p> <p>Scheduling using drum-buffer-rope in a remanufacturing environment by Guide, V.D.R., <i>International Journal of Production Research</i>, Apr96, Vol. 34, Issue 4.</p> <p>Using Drum-Buffer-Rope Scheduling Rather Than Just-In-Time Production by Huff, Patricia. <i>Management Accounting Quarterly</i>, Winter2001, Vol. 2 Issue 2</p>
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Semester	III	Specialization	Supply Chain Management
Course Code	315SCM	Type	Subject - Elective
Course Title	Supply Chain Practices - I		

Course Objectives:

1	To give a practical understanding of the practice of supply chain management in various sectors.
2	To give a practical understanding of the peculiarities of supply chain management practices in various sectors.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Supply Chains for Agro Based Products - Food, Milk Products, Poultry, Edible Oil, Flowers, Seeds & Fertilizers, Public Distribution System	NA
2	Supply Chains for Industrial Products - Auto Components, Steel Products, Lubricants, Industrial Paints, Transformers, Gensets	NA
3	Supply Chains for Consumer Products – Bicycles, Tractors, Cola Cans, Cars, Mobile Phones, Furniture, Sports Goods, Pharmaceutical Products, Fabrics & Garments, Books, Mineral Water, Newspapers & Magazines, Toys, Wrist Watches, Home Décor, Decorative Paints, Wine, White goods	NA
4	Supply Chains for Commodities - Coal, Cotton, Cement, Sugar, Rice, Metals, Oil & Gas	NA
5	Supply Chains for Services - Mobile Telephony, Financial Services, Electricity , Internet Services, Food Chains, Hospitality, Medical services, Airlines, Retail	NA

Students should work in groups of two each on any two Companies from the Sectors listed above. The Sectors should be from different groups. Students shall study various aspects of the SCM principles and practices as followed in these sectors. They should identify the peculiarities of the sector, map the supply chain in detail (identify the parties involved and their role in the supply chain), compare the top two players in each of these sectors and identify best practices, Prepare a summary evaluation of each sector studied. Students shall submit a structured detailed report based on the above parameters. The evaluation shall be made by a panel of two examiners. One of the examiners shall be the Internal Faculty.

The other examiner may be an external faculty or a person from the relevant industry. The evaluation shall be based on the following criteria:

Report – 20 Marks

Presentation – 15 Marks

Question & Answer – 15 Marks

* Field/Self Study under Faculty guidance.

Learning Resources:		
1	Text Books	Indian Supply Chain Architecture by B S Sahay and Ramneesh Mohan, Macmillan, 2007. Excellence in Manufacturing : New Approaches by Sabyasachi Chatterjee, ICFAI Books.
2	Reference Books	Financial Supply Chain by Sanjay Dalmia, TMGH, 2008. Logistics and Retail Management: Insights into Current Practice and Trends from leading Experts by Fernie and Sparks, Kogan Page, 2 nd Edition.
3	Supplementary Reading Material	Supply Chain Management in the 21st Century Editor by B S Sahay, Macmillan, 2006 reprint.
4	Websites	www.kpmg.com http://www.futuresupplychains.com/aboutus.html http://www.deloitte.com/us/supplychainindia
5	Journals	The Effects Of Digital Trading Platforms On Commodity Prices In Agricultural Supply Chains by Banker, Rajiv; Mitra, Sabyasachi; Sambamurthy, V., MIS Quarterly, Sep2011, Vol. 35 Issue 3 Supply Chain: Barriers and Benefits Indian SMEs by Zahedirad, Rouhollah; Shivaraj, B., SCMS Journal of Indian Management, Oct2011, Vol. 8 Issue 4 Flexible Strategic Framework for Managing Forces of Continuity and Change: Study of Supply Chain Management of Lighting Industry in India by Gupta, V. K., Global Journal of Flexible Systems Management, Jul-Sep2010, Vol. 11 Issue 3 The Impact of Supplier-Selection, Supply Effort Management, Logistics Capabilities and Supply Chain by Sezhiyan, D. M.; Nambirajan, T., Journal of Contemporary Management Research, Mar2011, Vol. 5 Issue 1 Supply Chain: A Differentiator in Marketing Fresh Produce by Veena, A.; Babu, K. Nagendra; Venkatesha, H. R., IUP Journal of Supply Chain Management, Mar2011, Vol. 8 Issue 1

MBA SYLLABUS: SEMESTER III
RURAL & AGRIBUSINESS MANAGEMENT SPECIALIZATION

University of Pune

Semester	III	Specialization	Rural & Agribusiness Management
Course Code	305RABM	Type	Subject - Core
Course Title	Agriculture and Indian Economy		

Course Objectives:

1	To expose learners to the environment in which the agri-business is conducted.
2	Focus will be on understanding micro and macro environmental forces and their impact on agri-business.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Indian Agriculture under the Five Year Plans : The Green Revolution, The place of agriculture in the national economy, progress of agriculture under the Five Year Plans, Present position of Indian Agriculture : Looming Crisis, New Thrust Areas in Agriculture, National Commissions of Farmers and Green Revolution, Crop Pattern in India since 1951.	7 + 2
2	Food Security in India: Green Revolution, Second Green Revolution – the future prospects, Concept of Food Security , Food self-sufficiency and food security, Poverty and need for Public Distribution Systems, Policy Options for reforms of PDS, Food Insecurity at Global level, Food Security Act – Salient features and implications.	7 + 2
3	Irrigation and other agricultural inputs: Irrigation, multipurpose river valley project – a controversy, irrigation in the 12 th plan, private sector participation in irrigation, fertilizers and manures, improved seeds, soil conservation and reclamation, livestock and dairy development, mechanization of agriculture	7 + 2
4	Land Reforms: The need and scope for land reforms in a developing economy, the abolition of intermediaries, tenancy reforms, ceiling on land holdings, an appraisal of land reforms Size of Farms and Productive Efficiency: Meaning of economic holding, changing pattern of ownership and operational holdings in India, Farms size, Productivity/ Profitability and farm efficiency, the problem of sub division and fragmentation of holdings, cooperative farming	7 + 2
5	Agriculture Labour: Present position of agricultural Labour in India, Agricultural Labour and Minimum Wages, Abolition of Bonded Labour, Recommendations of National Commissions on Rural Labour (NCRL) Unorganized Sector and Informalisation of the Indian Economy: Unorganized sector and India's Informal economy, size of unorganized sector, poverty, vulnerability and unorganized sector employment – the high degree of correlation, estimate of organized and unorganized workers, self-employed workers in non-agricultural sector, agricultural labourers, bonded labour, working conditions, of farmers, action programme for the unorganized sector, assessment of NCEUS recommendations	7 + 2

Learning Resources:		
1	Text Books	Indian Economy, Datt and Sundharam, S Chand Indian Economy Since Independence, edited by Uma Kapila, Academic Foundation Indian Agriculture - issues and perspectives, Edited by N Janardhana Rao, ICFAI University Press
2	Reference Books	Adhikary M. 1986. <i>Economic Environment of Business</i> . S. Chand & Sons. Aswathappa K. 1997. <i>Essentials of Business Environment</i> . Himalaya Publications Francis Cherunilam 2003. <i>Business Environment</i> . Himalaya Publications
3	Supplementary Reading Material	Food Security in India: Performance, Challenges and Policies (http://www.oxfamindia.org/sites/default/files/VII.%20Food%20Security%20in%20India-Performance,%20Challenges%20and%20Policies.pdf) National Food Security Mission - Operational Guidelines (http://agricoop.nic.in/nfsm/nfsm.pdf)
4	Websites	www.agricoop.nic.in/agristatistics.htm www.indiaseeds.com/ www.apeda.gov.in
5	Journals	Agribusiness – An International Journal Decision Indian Cooperative Review Indian Journal of Agricultural Economics Indian Management Studies Journal Journal of Agri-business Management Review Prabandhan Vikalpa

Semester	III	Specialization	Rural & Agribusiness Management
Course Code	306RABM	Type	Subject – Core
Course Title	Rural Marketing – I		

Course Objectives:

1	To objective of this course is to develop understanding of issues in rural markets
2	To provide an overview of marketing environment, consumer behaviour, distribution channels, marketing strategies, etc. in the context of rural markets in India.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Rural Marketing Opportunities: What is a Rural Market?, Taxonomy of the Rural Market, Go Rural Decision, Rural Inhibiting factors, Approach Decision: Rural Marketing Models, Bottom of the Pyramid Approach, Integrated, Innovation and Inclusive – Growth Model, Evolution and Scope, Rural versus Urban Marketing, Becoming a Rural Marketer, Testing rural marketing potential. Understanding the Rural Economy: Rural marketing Environment, social environment, economic environment, technological environment, innovations, political environment and development initiatives, implications on rural marketers	7 + 2
2	Rural marketing experiences: Case of HUL – Project Shakti, Case of CFCL – Uttam Bandhan, Case of ITC – e-Choupal, Case of Colgate – Education, Case of HLL – Social Marketing, lessons from experience	7 + 2
3	Rural Consumer Behavior: Rural consumer on the growth, models of consumer behavior, buying decision process, Opinion Leaders, Environmental factors influencing the decision making process, buyer characteristics, buying behavior patterns, brand loyalty, innovation adoption	7 + 2
4	Rural Marketing Research: Significance of information, sources of information, marketing research – key decisions, approaches and tools – case for innovation, participatory approaches, innovative tools, rural versus urban marketing research, rural research business, challenges in rural marketing research.	7 + 2
5	Selecting and Attracting Markets: Concepts and process, case for segmentation, bases for segmentation, emerging segments – women and youth, guides to effective segmentation, targeting, positioning, Case Study.	7 + 2

Learning Resources:		
1	Text Books	Rural Marketing – Text and Cases, Krishnamacharyulu and Ramakrishnan, Pearson Rural Marketing – Concept and Practices, Dogra and Ghuman, TMGH Rural Marketing, Velayudhan, Sage Rural Marketing, Gopalaswamy, Vikas Publishing house Rural Marketing in India, Habeeb - ur – Rahman, Himalaya Publishing House Rural Marketing Text and Cases, S L Gupta, Wisdom Publications
2	Reference Books	Singh AK & Pandey S. 2005. <i>Rural Marketing</i> . New Age. Singh Sukhpal. 2004. <i>Rural Marketing</i> . Vikas Publishing House.
3	Supplementary Reading Material	Rural Marketing, Badi and Badi, Himalaya Publishing House Agricultural Marketing in India, Acharya and Agarwal, Oxford and IBH Publishing Agricultural Marketing – New Trends and Techniques, K K. Tiwari, D.N.D Publications New Perspectives in Rural Agricultural Marketing, Ramkishan, Jaico Rural Agriculture and Marketing, Verma, Jiloka and Mandal, Deep and Deep Publications
4	Websites	www.agmarknet.nic.in/ www.market.ap.nic.in/ www.bambootech.org/
5	Journals	Agribusiness – An International Journal Decision Indian Journal of Agricultural Marketing Indian Journal of Marketing Indian Management Studies Journal Journal of Agri-business Journal of Marketing Management Journal of Marketing Research Journal of Sales Management Management Review Prabandhan Vikalpa

Semester	III	Specialization	Rural & Agribusiness Management
Course Code	307RABM	Type	Subject – Elective
Course Title	Rural Development – I		

Course Objectives:

1	To motivate students to understand the realities of rural India its economic strength, weaknesses, opportunities and threats in changing global context.
2	To help students to analyze the rural economic condition from two perspectives viz. actor's (the rural people) and outsider's (economists, development professionals) perspectives
3	To assists students to develop conceptual framework for dealing with rural economy.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: Concepts and Connotations of Rural Development, Basic Elements of Rural Development, Growth versus Development, Some Dilemmas in Development Concepts and Connotations of Rural Development, Basic Elements of Rural Development, Growth versus Development, Why Rural Development,	5 + 1
2	Measures of Development: Measures of Level of Rural Development, Income Distribution, Development Simplified, Concepts and Measures of Rural Poverty. Paradigm of Rural Development: The modernization theory, the dependency theory of the Marxist school, The Gandhian Model of Rural Development, Development Theories from other social sciences and their relevance.	5 + 1
3	Determinants of Rural Development: Changes in Output, Natural Resources, Human Resources, Capital, Technology, Organizational and Institutional Framework, Relation between Rural Development and Its Determinants.	5 + 1
4	Strategies for Sustainable Development: The concepts of sustainability and sustainable development, some indicators of non-sustainable development, a critical review of India's strategies of rural development, some elements of a new strategy for sustainable development.	5 + 1
5	Rural Development Project: Students to be divided in groups of 5 each and assign to study and present rural development measures and outcomes of a selected rural area.	5 + 1

Learning Resources:

1	Text Books	Rural Development, Katar Singh, Sage Rural Transformation - Infrastructure and Micro Finance, Bhargava and Deepak Kumar, ICFAI University Press Agriculture and Rural Development in India, Smita Patel, Paradise Publishers
2	Reference Books	Mishra, J. My Vision for India's Rural Development, New Delhi, Vikas Publishing
3	Supplementary Reading Material	Dhubashi PR. 1986. <i>Policy and Performance - Agricultural and Rural Development in Post Independent India</i> . Sage Publications
4	Websites	www.indiabudget.nic.in/ www.fao.org/index_en.htm www.icar.org.in/
5	Journals	Journal of Rural Development

Semester	III	Specialization	Rural & Agribusiness Management
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Course Code	308RABM	Type	Subject – Elective
Course Title	Special Areas in Rural Marketing		

Course Objectives:

1	To explore the students to the Special Areas in Rural Marketing Environment
2	To help students to understand opportunities and emerging challenges in the upcoming rural markets .

Syllabus:

Unit Number	Contents	Number of Sessions
1	Rural Marketing in FMCG – FMCG :An Introduction, Characteristics of FMCG for rural markets, Challenges to FMCG Industry from a rural perspective, Adopting marketing strategies to rural markets.	5 + 1
2	Rural Market in Consumer durables – Consumer durables: An Introduction, Marketing of consumer durables vs. FMCGs, Issues related to marketing of consumer durables in rural market.	5 + 1
3	Rural Market in Financial Services – Marketing of banking services in rural market, evolution of rural banking after independence, key reasons for poor performance of banks in nationalization period, challenges in marketing of banking services in rural market, opportunities for banking in rural areas, marketing strategies for banking services. Marketing of Mutual Funds in rural markets, Micro SIPs, etc.	5 + 1
4	Rural Market in Agricultural inputs – Indian tractor industry : A brief overview, fertilizer industry in India: An Introduction, Indian Agrochemical market: An Introduction, Global Agrochemical Market: A brief Overview.	5 + 1
5	Rural Market in Cottage Industries –Characteristics of Indian Handicraft industry, Nature of Indian Handicrafts, selected cottage industries clusters identified for enhanced exports, Challenges for rural cottage industries.	5 + 1

Learning Resources:		
1	Text Books	Rural Marketing – Concept and Practices, Dogra and Ghuman, TMGH Rural Marketing in India, Habeeb - ur – Rahman, Himalaya Publishing House
2	Reference Books	Singh Sukhpal 2004. <i>Rural Marketing- Focus on Agricultural Inputs</i> . Vikas Publishing House.
3	Supplementary Reading Material	Rural Marketing – Text and Cases, Krishnamacharyulu and Ramakrishnan, Pearson Rural Marketing, Velayudhan, Sage Rural Marketing, Gopaldaswamy, Vikas Publishing house
4	Websites	www.nhb.gov.in/ www.dcsi.gov.np/ www.fert.nic.in/
5	Journals	Agribusiness – An International Journal Decision Indian Cooperative Review Indian Journal of Agricultural Economics Indian Journal of Agricultural Marketing Indian Journal of Marketing Journal of Agri-business Journal of Marketing Management Journal of Marketing Research Journal of Sales Management Vikalpa

Semester	III	Specialization	Rural & Agribusiness Management
Course Code	309RABM	Type	Subject – Elective
Course Title	Commodity Markets – I		

Course Objectives:

1	To help students understand what commodity means and how commodities are traded
2	To make students identify significant areas of risk associated with buying and selling commodities
3	To update students about the regulatory framework for commodity markets in India

Syllabus:

Unit Number	Contents	Number of Sessions
1	Commodity Markets: An Overview – What is a Commodity?, Commodity Markets, Marketing of agricultural commodities, physical market operations.	5 + 1
2	Commodity Risk – Understanding risk, managing risk, evolution of commodity derivatives, evolution of commodity derivatives in India.	5 + 1
3	Commodity Derivatives – What is Derivatives? , types of derivatives, other classification of derivatives, Pricing derivatives, derivatives markets and participants, economic importance.	5 + 1
4	Commodity exchanges – What is commodity exchanges?, commodity exchanges around the world, commodity exchanges in India, electronic spot exchanges regulation of commodity markets.	5 + 1
5	Variety in commodity markets – designing commodity contracts, weather derivatives, freight derivatives, electricity derivatives, catastrophe derivatives, carbon derivatives, currency derivatives, property derivatives.	5 + 1

Learning Resources:

1	Text Books	Purcell WD. 1991. <i>Agricultural Futures and Options: Principles and Strategies</i> . Macmillan Publications
2	Reference Books	Kaufman PJ. 1986. <i>The Concise Handbook of Futures Markets</i> . John Wiley & Sons. Wasendorf RR & McCafferty 1993. <i>All about Commodities from the Inside Out</i> . McGraw-Hill.
3	Supplementary Reading Material	Understanding Agricultural Commodity Markets – EPW - December 29, 2012, Vol xvii no 52 Leuthold RM, Junkus JC & Cordier JE. 1989. <i>The Theory and Practice of Futures Markets</i> . Lexington Books. Lofton T. 1993. <i>Getting Started in Futures</i> . 3rd Ed. John Wiley & Sons, 1993.
4	Websites	www.indiabudget.nic.in/ www.commodityonline.com/ in.reuters.com/finance/commodities
5	Journals	Agribusiness – An International Journal Decision Indian Journal of Agricultural Economics Indian Journal of Agricultural Marketing Indian Journal of Finance Journal of Agri-business Management Review Prabandhan Vikalpa

Semester	III	Specialization	Rural & Agribusiness Management
Course Code	310RABM	Type	Subject – Elective
Course Title	Agricultural Marketing & Price Analysis – I		

Course Objectives:

1	To impart adequate knowledge and analytical skills in the field of agricultural marketing issues
2	To enhance expertise in improving the performance of the marketing institutions and the players in marketing of agricultural commodities.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Concepts in Agricultural Marketing: Characteristic of Agricultural product and Production – Problems in Agricultural Marketing from Demand and Supply and Institutions sides. Market intermediaries and their role - Need for regulation in the present context - Marketable & Marketed surplus estimation. Marketing Efficiency - Structure Conduct and Performance analysis - Vertical and Horizontal integration - Integration over space, time and form-Vertical coordination.	5 + 1
2	Marketing Co-operatives: APMC Regulated Markets - Direct marketing, Contract farming and Retailing - Supply Chain Management - State trading, Warehousing and other Government agencies– Market infrastructure needs, performance and Government role - Value Chain Finance.	5 + 1
3	Role of Information Technology and telecommunication in marketing of agricultural commodities: Market research-Market information service - electronic auctions (e-bay), e-Chaupals, Agrimarket and Domestic and Export market Intelligence Cell (DEMIC) – Market extension.	5 + 1
4	Spatial and temporal price relationship: Price forecasting – time series analysis – time series models – spectral analysis. Price policy and economic development – non-price instruments.	5 + 1
5	Project: Students should collect prices of one commodity per group from APMC for a fixed period and analyze the price trends and forecast future prices.	5 + 1

Learning Resources:		
1	Text Books	Singhal AK. 1986. <i>Agricultural Marketing in India</i> . Annual Publ., New Delhi.
2	Reference Books	Purecell WD & Koontz SR. 1999. <i>Agricultural Futures and Options: Principles and Strategies</i> . 2nd Ed. Prentice-Hall.
3	Supplementary Reading Material	Rhodes VJ. 1978. <i>The Agricultural Marketing System</i> . Grid Publ., Ohio. Shepherd SG & Gene AF. 1982. <i>Marketing Farm Products</i> . Iowa State Univ. Press.
4	Websites	www.market.ap.nic.in/ www.ncdc.in/ www.agricoop.nic.in/agristatistics.htm
5	Journals	Agribusiness – An International Journal Decision Indian Journal of Agricultural Economics Indian Journal of Agricultural Marketing Indian Journal of Finance Journal of Agri-business Prabandhan Vikalpa

Semester	III	Specialization	Rural & Agribusiness Management
Course Code	311RABM	Type	Subject – Elective
Course Title	Microfinance		

Course Objectives:

1	To Appraise the state of microfinance in Indian Economy
2	To make students understand the concept and principles of microfinance
3	To help students to identify issues, linkages and role of technology that hinder the success of microfinance

Syllabus:

Unit Number	Contents	Number of Sessions
1	Overview of Microfinance: What is Microfinance ? , Economically active poor, Microfinance Institutions, Trends in Poverty in India, Can Poverty be eradicated, Microfinance as a development tool: The India Experience	5 + 1
2	Subsidized credit to Microcredit: Progress of rural banking, growth of microcredit, RRBs and micro credit, sustainable micro credit, Microfinance delivery methodologies.	5 + 1
3	Microfinance Institutions: Why is credit microcredit booming?, credit delivery, four tier apparatus. NGO –SHG-Bank Linkage – Lending through NGOs, scalability – the new mantra of NGOs; State Sponsored Microfinance	5 + 1
4	Outreach and Viability: Impact assessment study of microfinance, innovative and creative microfinance models	5 + 1
5	Role of Technology: Technology as an Enabler – Case study	5 + 1

Learning Resources:		
1	Text Books	Microfinance - Redefining the Future, Somanath, Excel books
2	Reference Books	Microfinance: Concepts, Systems, Perceptions, and Impact: A Review of Sgsy Operations in India, Soumitra Sarkar, Samirendra Nath, Readworthy Publications Microfinance: Emerging Trends and Challenges, Suresh Sundaresan, Edward Elgar Publishing Limited The Microfinance Revolution: Sustainable Finance for the Poor, Volume 1, Marguerite S. Robinson, The World Bank, Washington, D. C. Open Society Institute, New York The Economics of Microfinance Armendáriz, Beatriz, Morduch, Jonathan, PHI Microfinance, V S Somanath, Excel Books
3	Supplementary Reading Material	Microfinance in India: A New Regulatory Structure (http://www.centre-for-microfinance.org/wp-content/uploads/attachments/csy/1602/IIM%20Regulation%20V11.pdf)
4	Websites	http://www.centre-for-microfinance.org/ http://www.microfinanceindia.org/ http://www.emfil.org/
5	Journals	Agribusiness – An International Journal Decision Indian Cooperative Review Indian Journal of Agricultural Economics Journal of Agri-business Prabandhan Vikalpa

Semester	III	Specialization	Rural & Agribusiness Management
Course Code	312RABM	Type	Subject – Elective
Course Title	Agricultural Marketing		

Course Objectives:

1	To make students understand the functions performed by the agricultural marketing system.
2	To make students aware of current issues and trends in agricultural markets
3	To help students identify basic market problems and assess the effect of market imperfections on the performance of the marketing

Syllabus:

Unit Number	Contents	Number of Sessions
1	Agricultural market in India: Methods of Sale : Hatha system, private negotiations, quotation on samples, dara and moghum sale methods, open auction method. Marketed and Marketable surplus : Relationship between marketed and marketable surplus, relationship between price and marketable surplus. Limitations of Agricultural marketing: post-harvest immediate sales by farmers or distress sales, need and inadequacy of institutional marketing infrastructure.	5 + 1
2	Grading and Standardization: Meaning of grading and standardization, purpose of grading, advantages of grading, inspection and quality control, analysis of rural produce, inspection and testing of Agmark Grade, Indian standards, India's progress in grade specifications, consumer perception, producer's problems in grading, Population of grading, Motivation for grading, enactments in support of grade, ISO, CAC (International Standards)	5 + 1
3	Transportation of farm products: Functions of transportation, advantages of these functions, transportation methods, details, cost of transportation, transportation problem, suggestions for improvements.	5 + 1
4	Storage and Warehousing: Storage, storage practices in India, Risks in storage, storage structures, essentials of storage structures, cost of storage, returns of storage structures, cost of storage, returns of storage cost, warehousing, types of warehouses, warehousing in India, CWC, SWC, functioning of warehouses, growth of warehouses, FCI, warehouse capacity utilization, improvement suggestions, cold storage, advantages, capacity.	5 + 1
5	New trends in Indian Agriculture: Agro Processing Sector in India, The present state of agro processing and marketing, agencies involved in agro marketing, food processing and value addition are the keys to the future. Global demand for Indian Agriproduce– project on agricommodity and global prices.	5 + 1

Learning Resources:		
1	Text Books	Agricultural Marketing in India, Acharya and Agarwal, Oxford and IBH Publishing Agricultural Marketing – New Trends and Techniques, K K.Tiwari , D.N.D Publications
2	Reference Books	New Perspectives in Rural Agricultural Marketing, Ramkishen, Jaico Rural Agriculture and Marketing, Verma, Jiloka and Mandal, Deep and Deep Publications
3	Supplementary Reading Material	India's Domestic Agricultural Markets - Centre for Civil Society (http://www.ccsindia.org/ccsindia/interns2004/22.%20agriculture_Mark&Shalini.pdf)
4	Websites	www.dahd.nic.in/dahd/default.aspx www.coconutboard.nic.in/ www.mofpi.nic.in/ www.market.ap.nic.in/
5	Journals	Agribusiness – An International Journal Decision Indian Cooperative Review Indian Journal of Agricultural Economics Indian Journal of Agricultural Marketing Indian Journal of Marketing Journal of Agri-business Journal of Marketing Management Journal of Marketing Research Journal of Sales Management Management Review Prabandhan Vikalpa

Semester	III	Specialization	Rural & Agribusiness Management
Course Code	313RABM	Type	Subject – Elective
Course Title	Rural Research Methods		

Course Objectives:

1	To equip the students with basic elements of research methodology
2	To assist students to analyze the rural issues in the setting of rural environment.
3	To enhance students' understanding of various approaches in research

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: Significance of information, sources of information, Marketing Research – Key Decisions, Approaches and Tools – Case for Innovation, Approaches to Agricultural Marketing – Problem, research areas, research institutions, Data Sources in Agricultural marketing – Coverage, agencies, Publication and Dissemination of Market information.	5 + 1
2	Rural Market Mapping: Market mapping tools, Indian market demographics, Business Intelligence unit.	5 + 1
3	Various Methods of Research Applied to Rural Development: Historical method and rural development; survey method and rural development research, case study and rural development research, unique features of case study for rural development research.	5 + 1
4	Participatory Farmers' Research: Meaning of participation, farmers' organizations and participation, the dimension of rural organizations and the emergence of participation.	5 + 1
5	Participatory Rural Appraisal (PRA): Meaning, advantages of PRA, disadvantages of PRA, scope of PRA, methods and techniques of PRA, menu of PRA, ranking, preference, ranking, steps of preference ranking, pairwise ranking, drawing maps transact, time line, seasonal calendar, venn diagrams, livelihood analysis, flow of diagram, analysis group discussion, sustainability analysis.	5 + 1

Learning Resources:

1	Text Books	Research Methods in Rural Development, Nakkiran and Ramesh, Deep and Deep Publications Rural Marketing – Concept and Practices, Dogra and Ghuman, TMGH Rural Marketing, Badi and Badi, Himalaya Publishing House
2	Reference Books	Gaode and Hall, Methods of Social Research. Selling And Jahodia, Research Methods In Social Relations. Paulin Young, Scientific Research and Social Survey.
3	Supplementary Reading Material	Supermarkets and rural livelihoods : A research method, United States Agency for International Development, November 2007
4	Websites	www.rbi.org.in/home.aspx www.icrisat.org/ www.icar.org.in/ dare.nic.in/
5	Journals	--

Semester	III	Specialization	Rural & Agribusiness Management
Course Code	314RABM	Type	Subject – Elective
Course Title	Rural Banking		

Course Objectives:

1	To enable students to understand the structure and importance of rural banking in Indian Economy
2	To help the students to gain a deeper understanding of rural banking and to explore emerging trends in rural banking

Syllabus:

Unit Number	Contents	Number of Sessions
1	Regulation of Rural Financial Services: Regulatory framework of RFI's Reserve Bank of India and its policy and functions in Rural Banking - National Bank for Agriculture and Rural Development (NABARD) and its role in Rural Development Impact of Economic Liberalization.	5 + 1
2	Regional Rural Banks: Genesis and need Historical Background Problems of RRBs Structural and other weaknesses Dantwala Committee Working Group of RRBs (KELKAR Committee Report) Recommendations of committee of financial sector reforms Recent policy changes policy relating to RRBs deregulations of interest rates and prudential norms Turnaround strategies DAP/MOU for revamping and restructuring.	5 + 1
3	Commercial Banks and Rural Banking: Rural lending by Commercial Banks, Problems of rural branches of Commercial Banks, Transaction cost and risk cost of rural financing, Rural branches as profit center, Impact of recent policy changes Prudential norms.	5 + 1
4	Local Area Banks/Other Financial Institutions Emerging Trends – Genesis, RBI Guidelines on Rural Local Area Banks, Other financial institutions like private banks, non-banking financial companies, Linkages with informal money markets, Some experience Alternative credit arrangements.	5 + 1
5	Emerging trends in Rural Banking: Financing poor as bankable opportunities, Micro credit: Summit declaration and follow up, SHG/Linkage with banking, Alternative financial institutions, NGO involvement , Reforms in rural credit system, Deregularisation, Prudential norms DAP/IMOU, turnaround strategies.	5 + 1

Learning Resources:		
1	Text Books	R.M. Srivastava: Management of Financial Institutions in India.
2	Reference Books	Vasant Desai: Nature and problems of Commercial Banking in India. Vasant Desai: Development Banks: Issues and Options Banking Regulation Act. Basu. A.K. Fundamentals of Banking Theory and Practice. Chatterjee, A., Bank Credit Management. Choubay, B.N., Principles and Practice of Co-operative Banking. Tanan, M.L. Banking Law and Practice in Negotiable Instrument India Act. Banking Books Evidence Act. RBI. Manual for UCB
3	Supplementary Reading Material	Future of Rural Banking – Y V Ready (http://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/10991.pdf) Regional Rural Banks: The Past and the Present Debate, Sukanya Bose (http://www.macrosan.net/pdfs/rrb_debate.pdf)
4	Websites	www.eximbankagro.com/ www.eands.dacnet.nic.in/latest_2006.htm www.mospi.nic.in/fod.htm www.nabard.org/ www.rbi.org.in/home.aspx
5	Journals	Indian Cooperative Review Indian Journal of Agricultural Economics Indian Journal of Finance Journal of Agri-business Management Review Prabandhan Vikalpa

Semester	III	Specialization	Rural & Agribusiness Management
Course Code	315RABM	Type	Subject – Elective
Course Title	AgriSupply Chains Management		

Course Objectives:

1	To introduce students to the concepts and processes of agricultural supply chain management
2	To provide a framework for structuring supply chain drivers; network designs,
3	To develop an understanding of demand forecasting, inventory planning, sourcing decisions and IT enablement of supply chain.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Supply Chain: Changing Business Environment; SCM: Present Need; Conceptual Model of Supply Chain Management; Evolution of SCM; SCM Approach; Traditional Agri. Supply Chain Management Approach; Modern Supply Chain Management Approach; Elements in SCM.	5 + 1
2	Demand Management in Supply Chain: Types of Demand, Demand Planning and Forecasting; Operations Management in Supply Chain, Basic Principles of Manufacturing Management.	5 + 1
3	Procurement Management in Agriculture Supply chain: Purchasing Cycle, Types of Purchases, Contract/Corporate Farming, Classification of Purchases Goods or Services, Traditional Inventory Management, Material Requirements Planning, Just in Time (JIT), Vendor Managed Inventory (VMI).	5 + 1
4	Logistics Management: History and Evolution of Logistics; Elements of Logistics; Management; Distribution Management, Distribution Strategies; Pool Distribution; Transportation Management; Fleet Management; Service Innovation; Warehousing; Packaging for Logistics, Third-Party Logistics (TPL/3PL); GPS Technology.	5 + 1
5	Information Technology in SCM: IT Application in SCM; Advanced Planning and Scheduling; SCM in Electronic Business; Role of Knowledge in SCM; Performance Measurement and Controls in Agri. Supply Chain Management- Benchmarking: introduction, concept and forms of Benchmarking.	5 + 1

Learning Resources:

1	Text Books	Altekar RV. 2006. <i>Supply Chain Management: Concepts and Cases</i> . Prentice Hall of India. Monczka R, Trent R & Handfield R. 2002. <i>Purchasing and Supply Chain Management</i> . Thomson Asia.
2	Reference Books	van Weele AJ. 2000. <i>Purchasing and Supply Chain Management Analysis, Planning and Practice</i> . Vikas Publ. House
3	Supplementary Reading Material	Building Agri Supply Chains: Issues and Guidelines – World Bank
4	Websites	http://indiagovernance.gov.in/bestpractices.php?id=627 planningcommission.nic.in/reports/genrep/rep_logis.pdf
5	Journals	Indian Journal of Agricultural Economics Indian Journal of Agricultural Marketing Indian Journal of Marketing Journal of Agri-business Journal of Marketing Management Journal of Supply Chain Management Vikalpa

Semester	III	Specialization	Rural & Agribusiness Management
Course Code	316RABM	Type	Subject – Elective
Course Title	ICT for Agriculture Management		

Course Objectives:

1	To Acquire A Clear Understanding Of Theory And Application Of Information & Communications Technology In Various Fields Of Agriculture Management.
2	To help students in developing the linkage across various technological fields of agriculture management

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction : Basic terminology , Recent history of adoption of ICT in developing countries , Leapfrogging technology – the mobile phone , ICT and its ramifications for rural economies , Introduction to various ICT enabled rural services related to land, education, health, insurance, micro-credit, marketing etc. Village Resource Centre (VRC), Common resource Centre (CRC), Tele-education, community radio etc. Potential impact	5 + 1
2	ICT for production systems management : Types of ICT information service , Short-term productivity information services , Crisis management information services , Long-term productivity information services , Risk management information services , Common ICT platforms for information services , Collection and analysis , Delivery , Issues and challenges for ICT information services , Advantages of and opportunities for ICT information services	5 + 1
3	ICT for market access : Types of market access ICT service, Pricing services , Virtual trading floors , Holistic trading services, Downstream (and upstream) administration , Issues and challenges for market access ICT services , Advantages of and opportunities for market access ICT services	5 + 1
4	ICT for financial inclusion : Types of financial inclusion, ICT services , Transfers and payments , Agricultural credit , Savings for agricultural needs , Insurance , Common ICT platforms for financial inclusion services , Issues and challenges for ICT financial inclusion services , Advantages of and opportunities for ICT financial inclusion services.	5 + 1
5	Overview of Geographical Information Systems (GIS) : Remote Sensing and Image Processing, GPS, GIS Data Modeling, Geographical Information Systems, Issues and Concerns in Land and Water Management, The GIS Approach. Planning and Implementing a GIS; Case studies on GIS; GIS and Precision farming; GIS Applications in micro resource mapping, principles in micro planning, modeling in resource mapping GIS Technology trend and next generation Systems.	5 + 1

Learning Resources:		
1	Text Books	Sustainable Agriculture, edited by A. Bandyopadhyay, Bhoovigyan Vikas Foundation Concepts and Techniques of Geographic Information Systems , Lo, C.P. and Yeung, A.K.W. (2002)., Prentice Hall. E- Governance Concepts and case Studies- C.S.R Prabhu , Prentice Hall of India
2	Reference Books	Cases on Developing Countries and ICT Integration: Rural Community Development ,edited by Rebecca Nthogo Lekoko, Ladislaus M. Semali, IGI Fundamentals of Geographic Information Systems. DeMers, M.N. (1999) 2nd Ed., Wiley Press. Principles of Geographical Information Systems Burrough, P.A. and R.A. McDonald (1998), Oxford University Press.
3	Supplementary Reading Material	The Relevance of Content in ICT Initiatives in Indian Agriculture – International Food Policy Research Institute (http://www.ifpri.org/sites/default/files/publications/ifpridp01180.pdf) Developing a Rural Market e-hub: The Case Study of e-Choupal Experience of ITC www.planningcommission.nic.in/reports/sereport/ser/stdy_ict/4_e-choupal%20.pdf .
4	Websites	www.deity.gov.in www.nasscom.org/
5	Journals	ASCI Journal of Management Agricultural Extension

Semester	III	Specialization	Rural & Agribusiness Management
Course Code	317RABM	Type	Subject – Elective
Course Title	Tourism Marketing - I		

Course Objectives:

1	To provide a global and local perspective on tourism
2	To build theoretical knowledge of the tourism industry and related sectors
3	To develop critical awareness of the physical, social and economic environments

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to Tourism: Background, Tourism: Concept, Tourist: Concept, Motives Behind Travel, Tourism: Typology, Tourism: An Industry, Effect of Tourism, Tourist Organizations, Market Potential of Tourism.	5 + 1
2	Tourism Marketing: The Perception, Why Tourism Marketing? Purpose of Tourism Marketing, Significance of Tourism Marketing, Tourism Marketing in the Developed Countries, Tourism Marketing in Indian Environment.	5 + 1
3	User's Behavioural Profile: Background, Users- A General Description, Users' Behaviour, Behavioural Influence, Users' Behaviour and Life Style, Typology of Users' Behaviour, Behaviour Determinants Model, Understanding the Behaviour of Tourism, Psycholocomotion of Tourists.	5 + 1
4	Tourism Product Planning and Development: Background, Product- the Concept, A View of the Tourism Product, Tourism Product- The Salient Features, Tourism Product Planning, Why Product Planning? Planning Process, Environment and Planning, Regional Planning, Appraisal of Project and Tourism Planning, Tourism Product Planning in India.	5 + 1
5	Tourism Market Segmentation: Background, Concept of Tourism Market, Concept of Market Segmentation, Justification For Segmenting the Market, Importance of Market Segmentation, Bases of Market Segmentation, Life Style: An Importance Base, Effective Market Segmentation, Decision Processes for Segmentation.	5 + 1

Learning Resources:		
1	Text Books	Tourism Management, Anil Sharma, Essential Books, New Delhi Tourism and Travel Management, Biswanath Ghosh, Vikas Publishing House Pvt. Ltd. New Delhi Basic of Tourism Management, Suddhendu Mishra, Excel Books, New Delhi Starting a Tourism Company, Monika Prakash and Nimit Chowdhary, Matrix Publishers, New Delhi
2	Reference Books	Tourism Development Revisited: Concepts, Issues and Paradigms , SutheeshnaBabu. S, Sitikantha Mishra, BirajBhusanParida, Response Books New Delhi Tourism Management , Stephen J Page, Butterworth-Hienemann Oxford
3	Supplementary Reading Material	Foundations For Tourism Development, JagmohanNegi, Galgotia Publishing Company, New Delhi Tourism Marketing, Tapan K Panda and Sitikantha Mishra, The ICFAI University Press, Hyderabad
4	Websites	www.agritourism.in/ www.agritourismworld.com www.tourism.gov.in/
5	Journals	Decision Indian Journal of Marketing Journal of Marketing Management Management Review Vikalpa

Semester	III	Specialization	Rural & Agribusiness Management
Course Code	318RABM	Type	Subject – Elective
Course Title	Millennium Development Goals		

Course Objectives:

1	To make students understand the importance of millennium development goals and its applicability to rural economy
2	To highlight the contribution of agrarian economy and its role towards millennium development goals
3	To make students aware about the varied approaches towards the achievement of millennium development goals

Syllabus:

Unit Number	Contents	Number of Sessions
1	Millennium Development Goals – Origin and Concept, Strong international commitment, eight millennium development goals, Issues in Indian Agriculture	5 + 1
2	Role of Agriculture in Meeting the Millennium Development Goals – The Marginalization of Agriculture, Growth and poverty under structural adjustment, Prospects of reducing poverty by 2015. Agricultural growth is pro poor growth, Improving market access to encourage pro-poor growth, Agriculture and MDG 1, Perspectives on the role of Agriculture in meeting the Millennium Development Goals	5 + 1
3	Agriculture's Contribution to Food and Nutrition Security – The current growth path and increase in poverty, Growth in staples and poverty reduction, Assessing investment options and poverty reduction, Poverty Reduction through Agriculture led Economic Growth	5 + 1
4	Global trends and emerging issues in meeting MDGs – Policy Actions and impact on MDG, Trade Policies, Policies for Developing countries, Policies in Development Assistance - the case of Food aid, Macroeconomic Reforms and National Government Infrastructure Investments, Importance of Rural Infrastructure, Public Investment and Infrastructure	5 + 1
5	Private Sector & Millennium Development Goals – Role of Private sector in supporting agriculture to meet the MDGs, The rural nonfarm private sector, Private-Public Partnerships and Investment Synergies, The Role of Governance Structures in Agriculture for Achieving the MDGs, The Role of Foreign Direct Private Investment in Agriculture for Achieving the MDGs	5 + 1

Learning Resources:		
1	Text Books	Rural India: Achieving Millennium Development Goals and Grassroots Development, edited by Madaswamy Mon, Concept Publishing Company
2	Reference Books	Agriculture, Food Security, Nutrition and the Millennium Development Goals, Joachim Von Braun, Mark W Rosegrant, International Food Policy Research Institute Attaining the Millennium Development Goals in India: Reducing Infant Mortality, Child Malnutrition, Gender Disparities and Hunger-Poverty and Increasing School Enrollment and Completion, Anil B. Deolalikar, Oxford University Press India Attaining the Millennium Development Goals in India: Role of Public Policy & Service Delivery, , World Bank. South Asia Regional Office. Human Development Unit, World Bank Development Communication in Practice: India and the Millennium Development Goals, J V Vilanilam, Sage Publications
3	Supplementary Reading Material	Millennium Development Goals: India Country Report 2011
4	Websites	www.un.org/millenniumgoals www.undp.org/mdg/ www.un.org.in/_layouts/UNDP/MDG.aspx
5	Journals	Food Policy American Journal of Agricultural Economics

University of Pune

MBA SYLLABUS: SEMESTER III
FAMILY BUSINESS MANAGEMENT SPECIALIZATION

Semester	III	Specialization	Family Business Management
Course Code	305FBM	Type	Subject – Core
Course Title	Essentials of Family Business Management – I		

Course Objectives:

1	To motivate the entrepreneurial instinct of students and expose them to family owned business challenges and issues.
2	To develop and strengthen entrepreneurial quality and motivation especially towards Family owned business.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Family businesses Uniqueness: Definitions of Family business, What constitutes a family business? Succession and Continuity, Economic impact, What Makes it Unique - The Nature, Importance, and Uniqueness of Family Business - Special strengths - family business culture and values, predictable problem resolution, commitment, Knowledge, Flexibility in work, time and money, Long-range thinking, A stable culture, Speedy decisions, Reliability and pride. Dilemmas and challenges for family businesses- Resistance to change, Business challenges, Succession, Emotional issues, Leadership. A competitive edge and outperformance? Successful sectors for family businesses. The system theory perspective, Blurred System Boundaries, The Alternative to Blurred system boundaries: joint optimization, The agency theory perspective, The strategic perspective: competitive challenges faced by family businesses, Competitive advantage: the resource based view, The stewardship perspective.	7 + 2
2	Family business dynamics: People, system and growing complexity: Family culture, organizational culture, and cultural blur in family firms, A system perspective on continuity resulting from generational conflict and culture change, Family business people – Founders, Women in family businesses, Husband and wife teams, In-laws, Multifamily ownership, Non-family employees, Managing conflicts in family firms. Family unity and a positive family –business interaction as a resource in the creation of inimitable competitive advantages. Family business systems - Seeking a balanced approach, Introducing the ownership dimensions. Family business life cycles: a story of growing complexity - Life-cycle stages, A customer-active paradigm, continuous evolution-not revolution-and family business continuity, Ownership transitions. Erosion of the future entrepreneurial culture. The need to preserve the entrepreneurial spirit and promote a positive-sum dynamic in later generation. Great Family Businesses.	7 + 2
3	The family's relationship with business: developing a strategic vision and building teamwork: Articulating values and shared vision, Effective business families, How families add value: the family-business interaction factor, Ingredients of successful planning - Family emotional intelligence, Establishing open communication, Family Communication: Family Meetings, The benefits of family meetings, Family Councils, and Family Offices, Family retreats, Family constitutions Family Meetings, The use of facilitators and advisors, The family employment policy, Ownership and family policy making, Guidelines for policy making, The family contribution, Creative versus destructive conflict, Building family teamwork. Unifying plans, processes and structures - Designing family governance.	7 + 2

4	<p>The next generation: human resource management and leadership perspective: To join or not to join? The importance of outside experience - Self-esteem and confidence -Wider business experience, Credibility with non-family employees. Systems overlap and human resource management issues – Recruitment, Training and development, Remuneration, Performance appraisal and promotion. Working in the business - Seek out a mentor, Gain the respect of employees, Tread carefully, Beware sibling rivalry, Work at establishing personal identity, Relationship with the senior generation</p>	7 + 2
5	<p>Getting help: making the most of outside resources: The Perspective of nonfamily managers, Career opportunities for nonfamily managers, Non-family managers - Relationship with the family, Introducing external executives, Motivation and rewards, Incentive design and delivery. Extending the family culture to nonfamily managers, Motivating and retaining nonfamily managers, Non-executive directors -Selecting the right candidate, Board practices. Professional advisers and consultants - Are your advisers keeping pace with your needs? Consultants, Family business consultants, Beware conflicts of interest, Relationships underpinning an advisory role, A nonfamily manager as a bridging president or CEO, Outsider advisors: the family business consultant.</p>	7 + 2

Learning Resources:		
1	Text Books	Family business: The essentials by Peter Leach, Profile books Ltd. Family Business by Ernesto J. Poza
2	Reference Books	Entrepreneurs: Talent, Temperament, Technique 2 nd Edition. By – Bolton, Bill and John, Thompson. Butterworth-Heinemann, MA. 2004. ISBN: 978-81-312-1366-7 Unleashing your Entrepreneurial Potential. By – Raghu Nanadan. Response Business Book from Sage, New Delhi.2009. ISBN: 978-81-7829-908-2 Peter Drucker: Innovation and Entrepreneurship – Practice and Principles, Affiliated East West Press, 1986 Robert Hisrich and Michael Peters: Entrepreneurship, Tata McGraw Hill, 2002 Jack Kaplan: Patterns of Entrepreneurship, Wiley, 2004 John Mullins: New Business Road Test, Prentice Hall, 2004
3	Supplementary Reading Material	Management of Succession in Family-Owned Business. Edited by Pramod Verma. The ICFAI University Press, Hyderabad. 2007. ISBN: 978-81-314-1185-8 Family Wars: Classic Conflicts In Family Business and How to Deal With Them. By - Grant Gordon and Nigel Nicholson. Kogan Page, London. 2008. ISBN: 978-0-7494-5457-9
4	Websites	-
5	Journals	The Role of the Founder in Creating Organizational Culture, Edgar H. Schein, Organizational Dynamics, Summer 1983. Milestones for Successful Venture Planning, Z. Block and I. C. Macmillan (1985), HBR

Semester	III	Elective	Family Business Management
Course Code	306FBM	Type	Subject – Core
Course Title	Managing Innovation – I		

Course Objectives:

1	To develop innovative approach to business related skills of marketing, quality management production, distribution and human resource management etc.
2	To develop aptitude towards innovative approaches by empowering them with necessary tools.

Syllabus:

Unit Number	Contents	Number of Sessions
1	The Innovation Imperative - Why innovate? The changing world of business, Key Definitions – Creativity, Invention, Innovation, Business Design, Innovation to Energize, Innovate for Growth, Profit, Innovate for Survival, Managing Change, Creativity & innovation. Myths Surrounding Creativity, Difference between innovation and creativity.	7 + 2
2	Models of Innovation – Static Models : Incremental versus Radical Innovation, Abernathy –Clark Model, Henderson – Clark Model, Disruptive Technological Change Model, Innovation Value – Added Chain, Strategic Leadership View, Familiarity Matrix, Imitability & Complementary Assets – Teece Model. Dynamic Models: Utterback – Abernathy Model, Tushman – Rosenkopf technology Life Cycle Model, Foster's S Curve.	7 + 2
3	Competencies, Assets and Knowledge: Profit Chain, Value Configurations – Value Chain, Value Network, Value Shop. Assets and Competencies. Assets – Coreness, Imitability, Profits. Competencies – Coreness, Imitability, Profits. Relationship between Competencies and Assets. Knowledge – Newness, Quantity, Tacitness. Sources of Assets and Competencies. Implications for Competition. Innovation and Competencies.	7 + 2
4	The Innovation Portfolio – What to innovate? Vision – Portfolios and Feelings, What is the right question. Identifying Feelings and Needs, Innovating Experiences, Battling Commoditization, Technology & Psychology, Innovation, Feelings, Needs: Creating Emotional Appeal, Searching for Innovation Opportunities. Process Innovation, Innovation Portfolios for Established Organizations. Pioneers, Migrants & Settlers.	7 + 2
5	Sources of Innovation: Functional Sources of Innovation – Internal Value Chain, Spillovers from Competitors, Suppliers, Customers and Complimentary Innovators, University, Government & Private Laboratories, International Sources. Circumstantial Sources of Innovation – Planned Firm Activities, Unexpected Occurrences, Creative Destruction.	7 + 2

Learning Resources:		
1	Text Books	Innovation Management , Allan Afuah, Oxford Indian Edition. Innovation Management , Shlomo Maital and D V R Seshadri, Response Books, Sage Publications, New Delhi. Innovation: the attacker's advantage, Foster, Richard N., London, Macmillan, 1986.
2	Reference Books	Adair on Creativity and Innovation, Edited by Neil Thomas, Viva Books.
3	Supplementary Reading Material	Innovating at the Edge – How organizations Evolve and Embed Innovation Capability, Tim Jones, Butterworth-Hienemann, South Asian Edition. Managing Creativity & innovation, Harvard Business Essentials, Harvard Business School Press. The Innovator's ToolKit , Harvard Business Press. Fastrack to Success Innovation , Andy Bruce and David Birchall, Prentice Hall - Financial Times. Getting to Innovation, Arthur B VanGundy, PHI – Eastern Economy Edition.
4	Websites	-
5	Journals	-

Semester	III	Specialization	Family Business Management
Course Code	307FBM	Type	Subject – Elective
Course Title	Business Plan		

Course Objectives:

1	To help students appreciate the purposes and audiences for business plans.
2	To help students understand the structure and content of a business plan, including the reasons for the structure and content.
3	To guide students in preparing a first draft of their own business plan
4	To train students in critical evaluation of business plans

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to Business Plan: Business Plan – Concept, need, use. Business planning overview - Business planning as a change agent - Idea brainstorming session - Understanding your motivations for preparing a plan - Raising money , Clarifying the company's future , Launching a new venture , Searching for partners , Plotting against the competition, Recruiting.	5 + 1
2	Key elements of a Business Plan: Executive summary - Business description - Industry analysis and trends - Competitive analysis - Target market - strategic position – risk assessment - Market strategies - Design and development plan - Technology plan -management and organization - Financial factors - Financial features - sales, profits, cash flows and return on investment - Financial requirements - loan , equity source of collateral - Current business position- Relevant information about the company, its legal form of operation, when it was formed, the principal owners and key personnel - Major achievements - developments within the company that are essential to the success of the business.	5 + 1
3	Writing a Business plan: Decide why you're writing your plan - Research other business plans - Collect Information - press releases, related articles, Trade and industries associations - industry journals, Internet, government sources and statistics - offline research resources - library - historical financials, important web sites. Evaluating data- benefits of market study -coverage of market study. Put it down on paper - brainstorming - Prepare your rough draft - Compile information and research to support the claims and assertions you make in your plan - Start thinking about the numbers- Write a final draft and finish the numbers - Set a deadline.	5 + 1
4	Evaluating a B Plan from the Investor's Perspective: (O) Opportunity: Is this a positive present value opportunity? (I) What is the idea / industry? (M) Is the target market large enough to support substantial growth / valuation? (P) Why does the opportunity generate a positive present value? What is unique? (A) Acceptance: Will customers in that market accept / buy this new product / service? (C) Why won't the value be competed away? (T) Why is this a good time to enter? (S) Speed? How quickly can this be implemented?	5 + 1

5	<p>Risk Assessment: Possible uncertainties: Market size, Customer acceptance, Customer approach, Competition, Management team, Potential real options, Which uncertainties can be managed so that outcome is more likely to be favorable? Choice of initial customers? Choice of investors?</p> <p>Team Evaluation: Can management team implement opportunity? How does previous experience relate to opportunity? How “hungry” is the management team? If management pieces are missing: What pieces are missing? What type of person will you look for to fill them? How will you find that person? Importance of a good team and a good opportunity are for VCs.</p> <p>Strategy: Is strategy consistent with opportunity, uncertainty, team, and exit?</p> <p>Investment requirements / cash flows: Is the amount of money required reasonable? Do the cash flows / forecasts make sense? Bottom-up, Top-down.</p> <p>Deal: Does deal structure provide appropriate incentives? Is the deal priced attractively? Do key individuals have incentives to do deal? Do key individuals have incentives to make deal work? Does deal structure provide / ensure appropriate governance? Does deal structure help manage the uncertainties?</p> <p>Exit: Is the deal excitable? How?</p>	5 + 1
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Learning Resources:		
1	Text Books	Entrepreneurial Small Business, Katz J A , Green II R P, McGraw Hill/Irwin, New York, NY, 2008. 3rd Ed. Getting to Plan B, Mullins J and Komisar R, Harvard Business Press, Boston, Massachusetts, 2009. Business Planning: A guide to Business Start-up. By – David Butler. Thompson. Butterworth-Heinemann, MA. 2008. ISBN: 978-81-312-1432-9
2	Reference Books	The Successful business Plan Secret Strategies by Rhonda Abrams PH The business plan in a day by Rhonda Abrams , PH. Business plan preparation - Entrepreneurship Development Institute of India
3	Supplementary Reading Material	How Much Money Does Your New Venture Need?, James M. Stancill, HBR, 1986.
4	Websites	-
5	Journals	Business Plans: Two Major Types; Fry, Fred L., Stoner, Charles R.; Journal of Small Business Management. Milwaukee: Jan 1985. Vol. 23, Issue. 1; p. 1 How to Write a Great Business Plan, William A. Sahlman, HBR, July 01, 1997, 11 pgs. How to Write a Winning Business Plan, S. R. Rich and D. E. Gumpert (1985), HBR, May-June, 1985 (Reprint No. 85314)

Semester	III	Specialization	Family Business Management
Course Code	308FBM	Type	Subject – Elective
Course Title	Private Equity		

Course Objectives:

1	To lay the foundations of a career in private investment activity in countries with transitional or developing economies, either as part of a corporate development effort, or through venture capital or buyout fund activity.
2	To develop an understanding of the fundamental dynamics of venture funding as a way of building a company, or considerations for buying a company amongst students who expect to engage in entrepreneurial activity.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: The structure of the VC industry , Company formation: structures, ownership and issues , Capitalization Tables and Valuation , Governance, Value Add and Exits; corporate venture capital funds. Issues in Private Equity in Emerging Markets (PEEM) and Development of Fund Strategy and Managing Crisis, History and trends , Contrasts with US/Europe , Hierarchy of risks , Risk mitigation strategies , Role of PE/VC in economic development.	5 + 1
2	Deal Sourcing, Due Diligence and Company Strategy in PEEM - I: Evolution of fund development in selected emerging markets , Contrasts in India, China and Brazil , Role of governments in the building of a venture capital base in emerging markets , Approaches to inventorying base of opportunities , Understanding the point of view and expectations of entrepreneurs, families and existing owners, Identifying and navigating relationships with corporate partners.	5 + 1
3	Deal Sourcing, Due Diligence and Company Strategy in PEEM - II: Working with international financial institutions, e.g., the IFC, World Bank and other regional development banks, Approaches to building deal flow in emerging markets, Special issues in setting up a system for deal processing , General transactional path , Special diligence factors in emerging markets and approaches to analyzing these , Challenges of deal origination , “Concept arbitrage” , Building companies around products or technologies transferred from other countries , The dangerous allure of “roll-up” strategies in emerging markets , Laying the groundwork for value added activity in the emerging market circumstances.	5 + 1
4	PE and VC Valuation Challenges in PEEM : Basic universal PE/VC valuation methods , Special considerations in emerging market PE , Special considerations in emerging market VC . Special considerations in term sheet provisions in PEEM - IFC’s “quasi-equity structures”, Country limitations in VC deal structure , PE and buyout considerations in deal structuring and contrast with US , Structuring PE deals without leverage.	5 + 1
5	Exit Planning, Alternatives and Execution in Emerging Markets : Alignment with entrepreneurs’ expectations and goals , Role and risks of local listing , Information resources for offshore listing , Inherent problems of illiquidity in emerging markets , Strategies for domestic and off-shore trade sales.	5 + 1

Learning Resources:		
1	Text Books	Poza, E. (2010). Family Business, 3rd Edition. Mason, OH: South-Western Cengage Learning. [ISBN : 0470998105] Tom Copeland et al: Valuation – Measuring and Managing the Value of Companies, Wiley 1996
2	Reference Books	Udayan Gupta (Editor), Done Deals: Venture Capitalists Tell Their Stories.
3	Supplementary Reading Material	Paul A. Gompers and Josh Lerner, The Money of Invention: How Venture Capital Creates New Wealth.
4	Websites	-
5	Journals	Zider, Bob "How Venture Capital Works" Harvard Business Review Roberts, Michael J. and Lauren Barley, "How Venture Capitalists Evaluate Potential Venture Opportunities" (HBSP 9-805-019) Amar Bhide: Bootstrap Finance – The Art of Start-ups, Harvard Business Review, November 1992, pp. 109-117

Semester	III	Specialization	Family Business Management
Course Code	309FBM	Type	Subject – Elective
Course Title	Franchising		

Course Objectives:

1	To introduce franchising as the most efficient form of entrepreneurship, a marketing tool, a distribution technique, the ultimate capital leverage device, a real estate platform, a combination of some or all of the above.
2	To learn how to evaluate franchise management opportunities - Ability to identify opportunities to expand local businesses through franchising.
3	To develop an ability to work out details needed to establish and develop a franchise network.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to Franchising: What is Franchising? - Franchising: History and Overview, Types of Franchises, Threshold Business Issues, Advantages and Disadvantages to Franchisor, Advantages and Disadvantages to Franchisee, Elements of a Successful System, Growth of Franchising, Key Learning	7 + 2
2	How to become a Franchisor? Basic business concept, pilot operation, Developing the operational manual, Developing the franchise package, Marketing the franchise package, Selecting franchisees, Developing the Franchisor's organization, Gross Revenues, Profit and Loss Statement, Capital Expenditure, Franchisee Sales, Marketing the product or service, Operations (including innovation), initial services, ongoing services.	6 + 2
3	How to become a Franchisee? How does being a franchisee differ from running your own non-franchisee business, Self-examination, Type of business, Assessing the Franchisor, Assessing the business proposition, What happens if the Franchisor fails,	6 + 2
4	Financial Aspects of Franchising: Initial Franchisee Fee, Sale of the franchise package, Leasing of premises, Continuing fees, Advertising funds, Role of Banks. Financial analysis and comparison of two franchise cases: This analysis should include: <ol style="list-style-type: none"> 1. Demographic analysis of the area 2. Traffic counts 3. Estimated start-up cost and ongoing fees (franchise fees and start-up expenses) 4. Assessment of the overall competitiveness of the franchise, considering the demographic and market potential. 5. Break even analysis to recover franchise fees, royalties and start-up costs 6. Selected ratio analysis based on industry selection (Using RMA data) 7. A pro forma income statement for the first three years of operations for the two franchises 8. A recommendation on the best franchise (with data support) 9. All market or location assumptions must be clearly stated in the analysis and supported by facts. 	10 + 2
5	Franchisor Franchisee Relations: Foundations, Parties responsible, Continuing relationship, Channels of communication – personal contacts, written communication, Franchisee Meetings, Franchisee Associations, Contractual Issues, Structure of Franchisee Agreements ,	6 + 2

Learning Resources:		
1	Text Books	Martin Mendelsohn , Guide to Franchising 7th Ed, Cengage Learning Judd, R., & Justis, R. (2008). Franchising: An Entrepreneur's Guide, 4th ed. Mason, OH: Thomson
2	Reference Books	Hoy, F and Stanworth, J (2003), Franchising : An International Perspective, Routledge
3	Supplementary Reading Material	Bradach, J.L. (1998) Franchise Organizations, Harvard Business School Press Carter, S. & Jones-Evans, D (eds) (2000): Enterprise and Small Business, FT/Prentice Hall. Chapter 12 Felstead,A, (1993) The Corporate Paradox: Power and control in the Business Franchise International Thompson Business Press Lashley, C. & Morrison, A (eds) (2000) Franchising Hospitality Services, Butterworth Heinemann Perdy, D., Stanworth, J. and Hatcliffe, M., (1996) Franchising in Figures, University of Westminster Press Price,S., (1997)The Franchise Paradox, Cassell Toplis, N, Marsh, G (2004) The 60 Minute Guide to Franchising, 60 Minute Book Company, England Love, J.F.(1995) McDonald's: Behind the Arches, Bantam Ritzer, G (1993) The McDonaldisation of Society, Pine Forge Press
4	Websites	www.whichfranchise.com www.thefranchisemagazine.net

5	Journals	<p>Castrogiovanni, G. (1998). Universal business brokers. <i>Entrepreneurship Theory & Practice</i>, 22 (2), 75-86.</p> <p>Ciavarella, M., & Amason, A. (2001). Nawkaw, Inc.: Changing the color of masonry. <i>Entrepreneurship: Theory & Practice</i>, 26 (2): 77-91.</p> <p>Finkle, T. (1998). Beano's Ice Cream Shop. <i>Entrepreneurship Theory & Practice</i>, 23 (1): 87-99.</p> <p>Elango, B. and Fried, V. H. (1997) Franchising research: A literature review and synthesis, <i>Journal of Small Business Management</i>, 35, 3, pp68-81</p> <p>Fulop, C. and Forward, J. (1997) Insights into franchising: A review of empirical and theoretical perspectives, <i>The Service Industries Journal</i>, 17, 4, pp603-625</p> <p>Stanworth, J and Curran, J (1999) Colas, Burgers, Shakes and Shirkers: Towards a sociological model of franchising in the market economy, <i>Journal of Business Venturing</i>, 14, 4, pp. 323-344</p> <p>Peterson, A and Dant, RP (1990) Perceived advantages of the franchise option from the franchisee perspective: Empirical insights from a service franchise, <i>Journal of Small Business Management</i>, July, pp. 46-61</p> <p>Withane, S (1991) Franchising and the Franchisee Behaviour: An examination of Opinions, Personal Characteristics and Motives of Canadian Franchisee Entrepreneurs, <i>Journal of Small Business Management</i>, January, pp. 22-29</p> <p>Kaufmann, PJ (1999) Franchising and the Choice of Self-Employment, <i>Journal of Business Venturing</i>, 14, pp. 345-362</p> <p>Guilloux, V; Gauzente, C; Kalika, M and Dubost, N (2004) How France's Potential Franchisees Reach Their Decisions: A Comparison with Franchisers' Perspectives, <i>Journal of Small Business Management</i>, 42, 2, pp. 218-224</p> <p>Kaufmann, PJ; Eroglu, S (1998) Standardization and adaptation in business format franchising, <i>Journal of Business Venturing</i>, 14, pp. 69-85</p> <p>Stanworth, J., Price, S., Purdy, D., Zafiris, N. and Gandolfo, A. (1996) , Business Format Franchising: Innovation and Creativity or Replication and Conformity', <i>Franchising Research: An International Journal</i> 1(2): 29 -39</p> <p>Pizanta, I and Lerner, M (2003) Examining control and autonomy in the franchisor-franchisee relationship, <i>International Small Business Journal</i>, 21, 2, pp. 131-159</p> <p>Dant, RP and Gundlach, GT (1999) The Challenge of Autonomy and Dependence in Franchised Channels of Distribution, <i>Journal of Business Venturing</i>, 14, pp. 35-67</p>
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Semester	III	Specialization	Family Business Management
Course Code	310FBM	Type	Subject – Elective
Course Title	Social Entrepreneurship		

Course Objectives:

1	Build appreciation of the nature of poverty, the needs of the poor and the obstacles to development in emerging markets.
2	Enhance capacity to analyze the challenges, opportunities and potential of social entrepreneurs and social organizations that are addressing global problems
3	Develop business strategies and operational plans that are tailored to the reality of emerging markets and that will help social entrepreneurs increase their impact and sustainability.
4	Build empathy, teamwork and leadership skills
5	To introduce students to the broad spectrum of emerging global social (including environmental and socially responsible) ventures - Laying the ground work for students' own potential career paths in social entrepreneurship.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Social Entrepreneurship & Social Enterprises: What is a social business? How is it different from social entrepreneurship? Definition of Social Entrepreneurship, Why social enterprises, Situating social enterprises, Defining social enterprises, Broad and Narrow Definitions, Recognizing Opportunities, The Idea of Social innovation, Social enterprises as hybrid organizations, Characteristics of social enterprises, Emergence of social enterprises, Influence of policy on emergence of social enterprises, Market influence on the development of social enterprises, Future & sustainability of social enterprises.	5 + 1
2	Skills for Social Entrepreneurship: Identifying and Defining Community need, Skills required for Identifying and Defining Community need, Stakeholder participation and involvement – Social policy context, Where do social enterprises fit within the changing landscape, Financing the social enterprise, funding gap. Income forecast, income statement, cash flow forecast, Managing financial risk.	5 + 1
3	Challenges and Risk of Innovation in Social Entrepreneurship – Conceptualizing innovation and its ethics, Analyzing for innovation system skills, Implementing innovation – mind set shifts. Distinctive leadership and management tasks in social enterprises.	5 + 1
4	BoP markets – definition, examples, the impact of culture, the poor as consumers, business models at the BoP, designing products that will create value for the BoP. Providing access to credit, Providing access to information and financial services through technology, Providing access to health care, education.	5 + 1
5	Newer business models at the BoP – Social Entrepreneurs, Challenges for social entrepreneurs – creating a successful business model and finding funding, generating income, scaling and replicating to increase impact, social entrepreneur's point of view, New opportunities for collaborative ventures at the BoP. Evaluating the social impact of BoP ventures.	5 + 1

Learning Resources:		
1	Text Books	Bornstein, David, How to Change the World: Social Entrepreneurs and the Power of New Ideas, 2007, Oxford University Press Social Entrepreneurship: A Skills Approach, By Robert Gunn, Chris Durkin
2	Reference Books	F. Perrini (Ed.) The New Social Entrepreneurship: What Awaits Social Entrepreneurship Ventures? Cheltenham and Northampton, MA: Edward Elgar, 2006 Carlo Borzaga and Jacques Defourny (eds.), The Emergence of Social Enterprise, Routledge, London, 2001, 400 pp. Social enterprise : at the crossroads of market, public policies and civil society by Nyssens, Marthe.; Adam, Sophie, London ; New York : Routledge, 2006.
3	Supplementary Reading Material	Nicholls, Alex. 2006. Social Entrepreneurship: New Models of Sustainable Social Change. Oxford University Press.
4	Websites	http://www.gsb.stanford.edu/csi/ http://www.fuqua.duke.edu/centers/case/ http://www4.gsb.columbia.edu/socialenterprise/
5	Journals	The World of the social entrepreneur, John L Thompson, (2002), The International Journal of Public Sector Management. Bradford. Vol.15, iss.4/5; Pg. 412. Journal of Nonprofit & Public Sector Marketing International Journal of Nonprofit and Voluntary Sector Marketing Nonprofit Management and Leadership

Semester	III	Specialization	Family Business Management
Course Code	311FBM	Type	Subject – Elective
Course Title	Intrapreneurship		

Course Objectives:	
1	To understand what an intrapreneur is, what the benefits are, the risks, and the responsibilities.
2	To learn how to manage a startup business or service within an existing company in ways that allows it to succeed, to make a profit and to continue to grow.
3	To understand the mechanics of putting together a business plan and presenting it for a new company.
4	To see how it is possible to overcome various financial, economic and political barriers and succeed with a new idea in an existing corporate environment.

Syllabus:

Unit Number	Contents	Number of Sessions
1	The concept of Intrapreneurship: Defining an intrapreneur, characteristics of people within an organization who are likely to become Intrapreneurs, Why Intrapreneurship is important now - Decentralization of ideas, Empowering the frontlines, User Driven innovation, The Digital Generation. Realizing the Promise of Intrapreneurship, Lens and Perspective of Intrapreneurship.	5 + 1
2	Ideas, Roles and Processes: Ideas – Scaling Ideas, Scope of Ideas, Degree of Change of Ideas, Orientation of Ideas, Navigating the idea space. Roles – The Intrapreneur, The Manager, The Observers, The Owner and/or the organization, The Process. Idea Generation and Mobilization: Organizational Perspective – Idea Generation, Idea Mobilization, Design Considerations for Idea Generation and Mobilization. Employee Perspective – Idea creation, Idea Mobilization.	5 + 1
3	Advocating & Screening: Organizational Perspective – Idea Advocacy, Idea Screening, Design Considerations for Idea Advocacy and Screening. Employee Perspective - Idea Advocacy, Idea Screening. Idea Experimentation: Organizational Perspective – Looking beyond R & D Labs for experimentation, Valuing an Experimentation Culture, Developing an Experimentation process to test the feasibility of ideas, Refining the Experimentation process of the organization. Design Considerations in Experimentation. Employee Perspective – Methods for Experimentation, Experimentation Simplified, and Getting help from friends, Experimenting Outside the Organization.	5 + 1
4	Idea Commercialization: Organizational Perspective – Creating the Commercialization Team, Conversation with the Idea creators, Identifying Resources and Assets, Markets, Packaging, pricing and Promotion. Implementation Plans. Performance Measurement. Employee Perspective – Appreciate the Commercialization Process, Working with the Commercialization team, Negotiating Compensation for Idea and Effort. Diffusion and Implementation of ideas: Organizational Perspective – Diffusing Ideas, Implementing ideas. Employee Perspective – Diffusing Ideas, Implementing ideas.	5 + 1
5	Intrapreneurship – from concept to sustained Competitive Advantage: Open up a dialogue, Take a Community approach, Lean Unlearn and Relearn, Build Multiple Avenues, Keep feedback mechanisms simple, Collect feedback with a plan in mind, Communicating Feedback, Technology doesn't drive the process, The Human Factor, Importance of Measurement, tracing the Maturity of Intrapreneurship Processes and linking them to business value.	5 + 1

Learning Resources:		
1	Text Books	Intrapreneurship: Managing Ideas Within Your Organization By Kevin C. DeSouza
2	Reference Books	Managing Corporate Culture, Innovation and Intrapreneurship by Howard W. Oden Creating the Intrapreneur: The Search for Leadership Excellence by Victoria C. DePaul Corporate Entrepreneurship: Top Managers and New Business Creation. By – Vijay Sathe. Cambridge University Press, New York. 2003. ISBN: 978-0-521-61392-7 Morris, M.H. and Kuratko, D., Corporate Entrepreneurship, Ft. Worth, TX: Harcourt, 2002.
3	Supplementary Reading Material	Intrapreneuring in Action, by Gifford Pinchot and Ron Pellman, Barrett Koehler, San Francisco, 1999, ISBN 978-1-57675-061-2 Essentials of Entrepreneurship and Small Business Management by Thomas W. Zimmerer and Norman M. Scarborough, Pearson Prentice Hall, 4th edition, 2005, ISBN 0-13-149178-4 Crossing the Chasm, by Geoffrey Moore, Harper Collins, 1999, ISBN 0-06662-002-3 Payback: Reaping the Rewards of Innovation by James P. Andrew, Harold L. Sirkin, John Butman, Harvard Business School Press; 1 st edition, 2007, ISBN: 978-1422103135 Intrapreneuring: Why You Don't Have to Leave the Corporation to Become an Intrapreneur by Gifford Pinchot, Harpercollins, 1986, ISBN: 978-0060913359
4	Websites	-
5	Journals	Internal entrepreneurship: strategy for growth, Roberts EB and Frohman A., Business Quarterly, 1972 The Four Models of Corporate Intrapreneurship by Robert C. Wolcott and Michael J. Lippitz, Reprint 49115; Fall 2007, Vol. 49, No. 1, pp. 75-82 Entrepreneurs and Intrapreneurs in Corporations by Teltumbde, Anand. Vikalpa: The Journal for Decision Makers, Jan-Mar2006, Vol. 31 Issue 1, p129,132, 4p; (AN 20500312) On the way to creativity: Engineers as intrapreneurs in organizations; Hanns C. Menzela, Iiris Aaltiob, Jan M. Ulijna; Technovation 27 (2007), Pp 732–743 Connect and Develop Inside Procter & Gamble's New Model for Innovation; Larry Huston, Nabil Sakkab; Harvard Bus. Rev., March 2006 The Ten Commandments of Intrapreneurs, Mark Robinson, Management, Dec 2001, Pp 95-98 Managing in the Whitespace, Maletz, M.C., Nohria, N., Harvard Bus. Rev., Feb. 2001, 11p DuPont Tyvek(R): Commercializing a Disruptive Innovation, Jeffery, Mark; Cooper, Robert; Buchanan, Scott, 01/01/2006 HBS Number: KEL194 The 12 Different Ways for Companies to Innovate, Mohanbir Sawhney, Robert C. Wolcott and Inigo Arroniz, MIT Sloan Management Review, SPRING 2006 VOL.47 NO.3 The Middle Manager as Innovator (HBR Classic), Rosabeth Moss Kanter, HBR # R0407M Joline Godfrey and the Polaroid Corporation, Nancy A Kamprath, Melinda B. Conrad, HBSP 9-492-037, Rev April 4, 2000 The relationship between corporate entrepreneurship and strategic management, Barringer, B., and Harrison, J. (1999), Strategic Management Journal, 20: 421-444. Emerging Business Opportunities at IBM (A); DAVID A. GARVIN, LYNNE C. LEVESQUE, Harvard Bus. Sch. Pub. 9-304-075, Rev Feb 28, 2005

Semester	III	Specialization	Family Business Management
Course Code	312FBM	Type	Subject – Elective
Course Title	Trends in Entrepreneurship		

Course Objectives:

1	To develop necessary knowledge and Entrepreneurial skills among the Students
2	To sensitize the potential entrepreneur towards environment.
3	To make the potential entrepreneurs know about the possible risks and failures of the project and make them learn how to overcome these problems

Syllabus:

Unit Number	Contents	Number of Sessions
1	Women and Entrepreneurship: Role of women in Society, Women: Historical Context in India , Challenges to Women Entrepreneurs, Increasing trends of Women in Business, Emerging Eco-system for Women Entrepreneurship, Benefits of Women Entrepreneurship	5 + 1
2	Rural Entrepreneurship: What is Rural Entrepreneurship? Need of Rural Entrepreneurship, Problems in Rural Entrepreneurship, Challenges to Rural Entrepreneurship, Government and Rural Entrepreneurship, Rural Entrepreneurship Opportunities, Benefits of Rural Entrepreneurship.	5 + 1
3	Globalization and Virtual Enterprises: Introduction to Globalization, Factors Motivating Globalization, Challenges due to Globalization, Trend towards Globalization, The fading 'Ship and Sell Approach', The new 'Borrow-Blend-Bill' Model, Why is Globalization important? Challenges in International Trade, Virtual Enterprises	5 + 1
4	Technology Driven Entrepreneurship: Technology in Perspective, Technology is an Enabler, Types of Technology Ventures, Profile of 'Technopreneur', Why Technology-based Enterprises fail, Challenges faced by Technology based Enterprises, Technology Application Strategies - Diffusion of Innovation, Right Timing	5 + 1
5	Sustainability, Climate Change And Entrepreneurship: Understanding Climate Change, Impact of Global Warming, What is Sustainability? Need for Sustainability in Business, Creating buy-in to Practice Sustainable Business, Entrepreneurship and Sustainability.	5 + 1

Learning Resources:		
1	Text Books	<p>Entrepreneurship - Theory and Practice , Raj Shankar, TMGH.</p> <p>Technology Ventures: From Idea to Enterprise - Dorf, R. and Thomas Byers,</p> <p>Technology Entrepreneurship: Creating, Capturing, and Protecting Value by Thomas N. Duening, Robert A. Hisrich, Michael A. Lechter</p> <p>High Technology Entrepreneurship by Ray Oakey</p> <p>Cases on Information Technology Entrepreneurship by José Aurelio Medina Garrido, Salustiano Martinez-Fierro, José Ruiz Navarro</p> <p>Idea Makers and Idea Brokers in High-Technology Entrepreneurship by Elias G. Carayannis, Todd L. Juneau</p> <p>Information Technology Entrepreneurship and Innovation by Fang Zhao</p> <p>Small Business And Entrepreneurship by S. Anil Kumar</p> <p>Managing Technology Entrepreneurship and Innovation by Paul Trött, Dap Hartmann, Victor Scholten</p>
2	Reference Books	<p>Hisrich, R. D. (2010). <i>International Entrepreneurship</i>. Thousand Oaks, CA: Sage [ISBN: 978-1- 4129-5798-4]</p> <p>Handbook of research on high technology entrepreneurs by Ayala Malakh-Pines, Mustafa F. Ozbilgin</p> <p>Entrepreneurs in High Technology : Lessons from MIT and Beyond by Massachusetts Institute of Technology Edward B. Roberts David Samoff</p> <p>Betting It All: The Entrepreneurs of Technology by Michael S. Malone</p>
3	Supplementary Reading Material	<p>Handbook of research on techno entrepreneurship by François Thérin</p> <p>Handbook of Research on Entrepreneurship Policy by David B. Audretsch, Isabel Grilo, A. A. Roy Thurik</p> <p>Cases in Technological Entrepreneurship: Converting Ideas Into Value by Claudio Petti</p> <p>From Entrepreneurs to Leaders: Building Billion Dollar Software Product Companies from India. By – Shirish Deodhar. Tata McGraw Hill Education Private Limited, New Delhi.2010.ISBN: 978-0-07-068070-8</p>
4	Websites	-
5	Journals	-

Semester	III	Specialization	Family Business Management
Course Code	313FBM	Type	Subject – Elective
Course Title	Small Scale Industries Management		

Course Objectives:

1	To provide an overview of Small Scale Industry in the Indian context.
2	To highlight the role of institutional support to Small Industries.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to Small Industry: Introduction, Concept of small industry, Position in India, Role of small industries in economic development. Definition of Small scale Industries, Undertakings, SSI Policy Statement, Procedure for SSI Registration, The Strengths and Weakness of Small Business. Reasons for the significance of small sector, various forms of small scale enterprises, Policy Support to Small Sector in India: Industrial Policy Resolution 1948, 1956, 1977, 1980, 1990, 1991, Small Industries during various five year Plans, Policies and measures for promoting small industries, Ancillarisation and its role, Conclusions and suggestions.	5 + 1
2	Institutional Support to Small Industries: Institutional Infrastructure set up by Central Government and at the state level- SIDO, DCSSI, SISIs, NSIC, PDMCs Specialized Corporations, DICs, Specialized Corporations DICs, and Addresses of SISIs etc. Finance for Small Industries: Financing by commercial banks, Assistance by other agencies NSIC; IDBI - Refinance assistance, Bills rediscounting scheme, Special Capital/Seed Capital Scheme, Export Finance; Non-traditional methods of financing, common problems in raising finances.	5 + 1
3	Sickness in SSI, Status and Dimensions of SSIs and Industrial Sickness: Definition of 'Sickness' in SSI, SSI in India: An Overview. Symptoms for Detecting Sickness in Small-Scale Industries – Detecting Sickness , Ratio Analysis, Fund Flow Analysis Causes of Sickness in Small-scale Industries – Mismanagement, Marketing , Implementation Lacunae, Poor Information System, Energy Problem, Improper Technology , Overtrading , Psychological Melodrama, Lack of Financial Control, Competition and Cost of Production and Raw Material, Improper Human Resource Management , Problems of Entrepreneurs in SSIs, Other Constraints Causing Sickness , In-Built Unfavourable Policies of Government/ Institutions Leading to Sickness. Assessment of Viability of Sick Industries and their Rehabilitation: Viability Study, Rehabilitation of Small-scale Industries, Government Policy - An effort to Strengthen the Small-scale Industries in India , Taxation Benefits: Boon for the Growth of SSI.	5 + 1
4	Legal Requirements Concerning Business: Factories Act, 1948; Employment of Children Act, 1938; ESIC Act, 1948, Employees Provident Fund Act, 1952, Industrial Disputes Act, 1947, Workmen's Compensation Act, 1923; Trade Union Act, 1948; Employment Exchanges (Compulsory Notification of Vacancies) Act, 1959; Apprentices Act, 1961; Indian Boilers Act, 1923; Payment of Bonus Act, 1965; Payment of Gratuity Act, 1972.	5 + 1
5	Taxation Benefits to Small Industry: Depreciation, Investment Allowances & Investment Deposit Account, Expenditure on Scientific Research, Acquisition of patents & copyright, Know how; Amortization of Certain preliminary expenses; Deductions from Gross Total Income.	5 + 1

Learning Resources:		
1	Text Books	Entrepreneurship and Small Business Management by Dr. C L Bansal, Har Anand Publications Pvt. Ltd. New Delhi, 2012
2	Reference Books	Entrepreneurship by Lall, Madhurima. Sahai, Shikha. Excel Books, New Delhi, 2008, 2nd Edition
3	Supplementary Reading Material	-
4	Websites	http://niesbud.nic.in/ http://msme.gov.in/ http://ssi.nic.in/
5	Journals	P erformance of small scale industries in India in the post-liberalization ERA, Dr. Palaniappan A, International Journal of Business Economics and Management Research, 2010, Volume : 1, Issue : 2

Semester	III	Specialization	Family Business Management
Course Code	314FBM	Type	Subject – Elective
Course Title	Entrepreneurial Case Study		

Course Objectives:

1	To provide learning through interaction and analysis of a real life entrepreneurial venture.
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Syllabus:

Study visit by students to TWO entrepreneurs of their own choice. With the help of an interview schedule / questionnaire, students will gather information about :

1. Background of entrepreneur – Family, Social, Educational, Financial, etc.
2. History of the enterprise
3. Reasons / Motivations for selecting the entrepreneurial career
4. Process of starting the enterprise
5. Type of enterprise
6. Products / Services
7. Production Process
8. Marketing policies and plans
9. Investments
10. Institutional Finance
11. Financial Monitoring and controls
12. People management – Core team
13. Profit or loss, BEP
14. Managerial Process and Systems
15. Growth and Development of the Enterprise
16. Problems faced
17. Family support or opposition
18. Formal / informal training in Entrepreneurship
19. Future Plans

Students will map the Life Cycle of the Enterprise and carry out a SWOT analysis of the Enterprise as well as the Entrepreneur. The student shall also document the learning through the above activity.

They shall submit a spiral bound report in two copies and a soft copy of the above information. They shall seek a certificate from the Entrepreneurs to the effect that the information has been collected by the student from the entrepreneurs. Reports can both the entrepreneurs can be submitted in the same spiral bound copy.

Students shall present the details in an open house viva which shall be evaluated by a faculty. To the extent possible an entrepreneur should be involved in the evaluation process.

Learning Resources:

1	Text Books	NA
2	Reference Books	NA
3	Supplementary Reading Material	NA
4	Websites	NA
5	Journals	NA



University of Pune

MBA SYLLABUS: SEMESTER III
TECHNOLOGY MANAGEMENT SPECIALIZATION

Semester	III	Specialization	Technology Management
Course Code	305TM	Type	Subject – Core
Course Title	Fundamentals of Technology Management		

Course Objectives:

1	To provide students with a broad perspective on the key issues involved in the effective management of technology and innovation, including market, technological, and organizational factors, in today's fast-changing, competitive, global environment
2	To stress technology's crucial role in creating wealth and achieving competitiveness
3	To describe technology product life cycle linkages.
3	<u>To present the concepts describe of technology & product life cycles linkages.</u>

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to Technology Management: Definition of Technology, Characteristics of Technology. Levels of Development of Technology. Technology & Society, Technology as Socially Constructed. Relation of Knowledge and Technology, Technology and Business. Levels of technology Development – Ideas, Theories, Perspectives, Tacit Knowledge, Physical embodiment in products, services of procedures. Management of Technology (MOT), MOT at the level of the firm, National and Government Level. Need for MOT in the present Global context. Firm as a Value Chain, Industries as Competitive Domain, Value Creation and Competitive Advantage. Market Based views and Resource Based views in Management. General Manager's Perspective on Managing Technology.	7 + 2
2	Technology & Wealth Creation: Role of Technology in wealth creation, Historical perspective, Creation of wealth, Long Wave Cycle, Evolution of Production Technology, Product Technology, Technology & the National Economy.	7 + 2
3	Critical Factors in Managing Technology: Creativity – Invention – Innovation. Link between Science and Technology. Types of Innovation. Creativity & Innovation. Bringing Innovation to Market. Technology – Price Relationship. The Timing Factor. The Vision to Change Strategy. Productivity, Effectiveness and Competitiveness. Leaders versus Followers.	7 + 2
4	Management of Technology - The New Paradigms: Technology Trends, Resources and the Business Environment, The Structure and Management of Organizations, Project Planning & Management, Management of Human Resources, MOT guiding principles for Managing Enterprises, Changes in the Business Environment – Communication, Integration, Collaboration, Strategic Directions of the Industry, Changes in Organizational forms and structures, Financial Sector Structure.	7 + 2
5	Management of Technology & Competitiveness: Definitions and Indicators of Competitiveness, Investment, Productivity, Trade, Standard of Living, Management of Technology & Global Competitiveness, Case of Japan, Singapore, Various Indices on Competitiveness - Standard of Living Indexes, Trade Indexes, Productivity Indexes, Investment Indexes, Patents Index. Emergence of the Tigers, Competitiveness – The Game of Nations, Competitiveness of Firms – The Micro Level. Competitiveness of India and China – a comparative analysis.	7 + 2

Learning Resources:		
1	Text Books	Management of Technology – The Key to Competitiveness and Wealth Creation, Tarek Khalil and Ravi Shankar, TMGH, New Delhi, 2 nd Edition.
2	Reference Books	Managing Technology and Innovation for Competitive Advantage, V K Narayanan, Pearson Education, 2009 Edition. Strategic Management of Technology & Innovation, Robert A Burgelman, Modesto A Maidique, Steven C Wheelwright, MGH International Edition.
3	Supplementary Reading Material	Technology, Management & Society – Peter Drucker, Harvard Business Review Press. Technology Management – Text and International Cases, Norma Harrison and Danny Samson, MGH. Managing Strategic Innovation and Change – A Collection of Readings, Michael L Tushman and Philip Anderson, Oxford University Press. 2 nd Edition. Management of Technology and Innovation – Competing through Technological Excellence, P N Rastogi, Response Books, 2 nd Edition.
4	Websites	http://www.ifm.eng.cam.ac.uk/research/ctm/ http://hbswk.hbs.edu/ http://knowledge.wharton.upenn.edu/ http://www.technologymanagementchicago.org/
5	Journals	Cattani, G. & Simone Ferriani. 2008. A Core/Periphery Perspective on Individual Creative Performance, in Organization Science , 19(6): 824-844.

Semester	III	Elective	Technology Management
Course Code	306TM	Type	Subject – Core
Course Title	Managing Innovation – I		

Course Objectives:	
1	To highlight the importance of innovation in competitive world of business
2	To describe various models of innovation and corresponding assets & knowledge requirements
3	To highlight the threat of disruptive technologies and its managerial implications

Syllabus:

Unit Number	Contents	Number of Sessions
1	The Innovation Imperative: – Why innovate? The changing world of business, Key Definitions – Creativity, Invention, Innovation, Business Design, Innovation to Energize, Innovate for Growth, Profit, Innovate for Survival, Managing Change, Creativity & innovation. Myths Surrounding Creativity, Difference between innovation and creativity. Sources of Innovation: Functional Sources of Innovation – Internal Value Chain, Spillovers from Competitors, Suppliers, Customers and Complimentary Innovators, University, Government & Private Laboratories, International Sources. Circumstantial Sources of Innovation – Planned Firm Activities, Unexpected Occurrences, Creative Destruction.	7 + 2
2	Models of Innovation: – Static Models : Incremental versus Radical Innovation, Abernathy –Clark Model, Henderson – Clark Model, Disruptive Technological Change Model, Innovation Value – Added Chain, Strategic Leadership View, Familiarity Matrix, Imitability & Complementary Assets – Teece Model. Dynamic Models: Utterback – Abernathy Model, Tushman – Rosenkopf technology Life Cycle Model, Foster's S Curve.	7 + 2
3	Competencies, Assets and Knowledge: Profit Chain, Value Configurations – Value Chain, Value Network, Value Shop. Assets and Competencies. Assets – Coreness, Imitability, Profits. Competencies – Coreness, Imitability, Profits. Relationship between Competencies and Assets. Knowledge – Newness, Quantity, Tacitness. Sources of Assets and Competencies. Implications for Competition. Innovation and Competencies.	7 + 2
4	The Innovation Portfolio: –What to innovate? Vision – Portfolios and Feelings, What is the right question? Identifying Feelings and Needs, Innovating Experiences, Battling Commoditization, Technology & Psychology, Innovation, Feelings, Needs: Creating Emotional Appeal, Searching for Innovation Opportunities. Process Innovation, Innovation Portfolios for Established Organizations. Pioneers, Migrators & Settlers.	7 + 2
5	Innovator's Dilemma: Sustaining versus disruptive technologies, trajectories of market need versus technology improvement, Value Networks, Implications of the Value Network for Innovation, Managerial Decision Making & Disruptive Technological Change, Value Networks and Characteristic Cost Structures, Resource Allocation & Upward Migration, Case Studies on Management of Disruptive Technological Change	7 + 2

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Learning Resources:		
1	Text Books	<p>Innovation Management , Allan Afuah, Oxford Indian Edition. Innovation Management ,ShlomoMaital and D V R Seshadri, Response Books, Sage Publications, New Delhi. Moore, G. Crossing the Chasm. Revised ed. New York, NY: Harper Collins, 1999. ISBN: 9780066620022. Lansiti, M., Levien, R.: <i>The Keystone Advantage – What the New Dynamics of Business Ecosystems Mean for Strategy, Innovation, and Sustainability</i>, Harvard Business School Press, Boston, 2004 Miller, W.L., Morris, L.: <i>4th Generation R&D: Managing Knowledge, Technology, and Innovation</i>, John Wiley, New York, 1999 Matheson, D., Matheson,J.: <i>The Smart Organization: Creating Value Through Smart R&D</i>, Harvard Business School Press, Cambridge, 1998</p>
2	Reference Books	<p>The Innovator's Dilemma. Cambridge, MA: Harvard Business School Press, 1997, pp. 3-28. Diffusion of innovations Rogers, E. M. New York: The Free Press. 1995, 4th ed. Adair on Creativity and Innovation, Edited by Neil Thomas, Viva Books. The Innovator's Dilemma, Clayton M. Christensen, Harper Business Essentials</p>
3	Supplementary Reading Material	<p>Innovating at the Edge – How organizations Evolve and Embed Innovation Capability, Tim Jones, Butterworth-Hienemann, South Asian Edition. Managing Creativity & innovation, Harvard Business Essentials, Harvard Business School Press. The Innovator's ToolKit , Harvard Business Press. Fastrack to Success Innovation , Andy Bruce and David Birchall, Prentice Hall - Financial Times. Getting to Innovation, Arthur B VanGundy, PHI – Eastern Economy Edition. Teaching with technology. Hooper, S., &Rieber, L.P. (1995). In A. Ornstein (Ed.), <i>Teaching: Theory into practice</i>. Boston, MA: Allyn and Bacon.</p>
4	Websites	<p>http://www.ifm.eng.cam.ac.uk/research/ctm/ http://hbswk.hbs.edu/ http://knowledge.wharton.upenn.edu/ http://www.technologymanagementchicago.org/</p>
5	Journals	<p>Eisenhardt, Kathleen, and Charles Galunic. "Coevolving: At Last, A Way to Make Synergies Work." <i>Harvard Business Review</i>, January 1, 2000. Eisenhardt, Kathleen, and Shona Brown. "Patching: Restitching Business Portfolios in Dynamic Markets." <i>Harvard Business Review</i>, May 1, 1999. Brown, Shona, and Kathleen Eisenhardt. "The Art of Continuous Change: Linking Complexity Theory and Time-paced Evolution in Relentlessly Shifting Organizations." Administrative Science Quarterly 42 (1997): 1-34. Eisenhardt, Kathleen and Shona Brown. "Time Pacing: Competing in Markets that Won't Stand Still." <i>Harvard Business Review</i>, March 1, 1998.</p>

Semester	III	Elective	Technology Management
Course Code	307TM	Type	Subject – Elective
Course Title	Technology Forecasting		

Course Objectives:

1	To understand the purpose of technology forecasting and techniques used for technology forecasting.
2	To appreciate the strengths and weaknesses of technology forecasting techniques.
3	To underline the need for different technology forecasting techniques for different purposes.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Technology Forecasting Methods – I: Expert Opinion Methods: Delphi (iterative survey), Focus Groups [panels, workshops], Interviews, Participatory Techniques Trend Analysis: Trend Extrapolation [Growth Curve Fitting], Trend Impact Analysis, Precursor Analysis, Long Wave Analysis Monitoring and Intelligence Methods: Monitoring [environmental scanning, technology watch], Bibliometrics [research profiling; patent analysis, text mining]	5 + 1
2	Technology Forecasting Methods – II: Creativity: Brainstorming [brainwriting; nominal group process (NGP)], Creativity Workshops [future workshops], TRIZ, Vision Generation, Science Fiction Analysis Scenarios: Scenarios [scenarios with consistency checks; scenario management], Scenario-simulation [gaming; interactive scenarios], Field Anomaly Relaxation Method [FAR]	5 + 1
3	Technology Forecasting Methods – III: Statistical Methods: Correlation Analysis, Demographics, Cross Impact Analysis, Risk Analysis. Modeling and Simulation: Agent Modeling, Cross Impact Analysis, Sustainability Analysis [life cycle analysis], Causal Models, Diffusion Modeling, Complex Adaptive System Modeling (CAS) [Chaos], Systems Simulation [System Dynamics, KSIM], Technological Substitution, Scenario-simulation [gaming; interactive scenarios], Economic base modeling [input-output analysis], Technology Assessment.	5 + 1
4	Technology Forecasting Methods – IV: Valuing/Decision/Economics Methods: Relevance Trees [futures wheel], Action [options] Analysis, Cost-benefit analysis, Decision analysis [utility analyses], Economic base modeling [input-output analysis]	5 + 1
5	Technology Forecasting Methods – V: Descriptive and Matrices Methods: Analogies, Backcasting, Checklist for Impact Identification, Innovation System Modeling, Institutional Analysis, Mitigation Analysis, Morphological Analysis, Road mapping [product-technology roadmapping], Social Impact Assessment, Multiple perspectives assessment, Organizational analysis, Requirements Analysis [needs analysis]	5 + 1

Learning Resources:		
1	Text Books	<p>A brief introduction to technology forecasting: concepts and exercises by James Rieser Bright</p> <p>Foster, R. "The S-curve: A New Forecasting Tool." Chapter 4 in <i>Innovation, The Attacker's Advantage</i>. New York, NY: Summit Books, Simon and Schuster, 1986, pp. 88-111. ISBN: 9780671622503.</p> <p>Technological forecasting: a practical approach, Marvin J. Cetron Business Forecasting, Holton Wilson and Barry Keating, TMGH, New Delhi, 2010 Edition.</p> <p>Martino, J. P. (1983). <i>Technological Forecasting for Decision Making</i>, 2 ed., North-Holland, New York NY.</p>
2	Reference Books	<p>Bright, J. R. (1972). <i>A Brief Introduction to Technology Forecasting</i>, 2nd. ed., The Permaquid Press, Austin TX.</p> <p>Bright, J. R. and M. E. F. Schoeman (1973). <i>A Guide to Practical Technological Forecasting</i>, Prentice Hall Inc., Englewood Cliffs NJ.</p> <p>Hickman, L. A., ed. (1990). <i>Technology as a Human Affair</i>, McGraw-Hill Publishing Company, New York NY.</p>
3	Supplementary Reading Material	<p>Steele, L. W. (1989). <i>Managing Technology: The Strategic View</i>, McGraw-Hill Book Company, New York NY.</p> <p>Committee on Forecasting Future Disruptive Technologies; National Research Council. (2010). <i>Persistent forecasting of disruptive technologies</i>. National Academies Press.</p>
4	Websites	<p>Coates, J. (2001). A 21st Century agenda for technology assessment. <i>Technological Forecasting and Social Change</i> 67, 303-308. Retrieved January, 22, 2007, from http://josephcoates.com/pdf_files/252_21st_Century_TA_Agenda.pdf</p>
5	Journals	<p>Technological Forecasting and Social Change (Journal)</p> <p>Lienhard, J. H. (1985). "Some Ideas About Growth and Quality in Technology," <i>Technological Forecasting and Social Change</i>, Vol. 27, pp. 265-281.</p> <p>Martino, J. P. (1985). "Measurement of Technology Using Tradeoff Surfaces," <i>Technological Forecasting and Social Change</i>, Vol. 27, pp. 147-160.</p> <p>Martino, J. P. (1992). "Probabilistic Technological Forecasts Using Precursor Events," <i>Technological Forecasting and Social Change</i>, Vol. 42, pp.121-131.</p> <p>Martino, J. P. (1993a). "Baysian Updates Using Precursor Events," <i>Technological Forecasting and Social Change</i>, Vol. 43, pp.169-176.</p> <p>Martino, J. P. (1993b). "A Comparison of Two Composite Measures of Technology," <i>Technological Forecasting and Social Change</i>, Vol. 44, pp.147-159.</p> <p>Triplet, J. E. (1985). "Measuring Technological Change with Characteristics-Space Techniques," <i>Technological Forecasting and Social Change</i>, Vol. 27, pp. 283-307.</p>

Semester	III	Elective	Technology Management
Course Code	308TM	Type	Subject – Elective
Course Title	Strategies for Information Goods and Network Economies – I		

Course Objectives:

1	To learn about the characteristic features of network and information goods (and related products).
2	To understand the distinctive impact of network and information goods on competitive strategies in these industries, and how to manage them.
3	To highlight distinctive role of pricing in case of information goods.
4	To highlight importance of network effects & strategies to exploit network effect.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: Introduction to information and network goods. Cost structures, network effects, product complements, two-sided networks, standards, compatibility, product and price differentiation, Platforms and two-sided networks	5 + 1
2	Methods for Pricing and Price Discrimination: Demand, supply, price elasticity, price optimization, variety of pricing schemes, price discrimination, Pricing information goods, Characteristics of information goods, and how they affect product differentiation, price discrimination, versioning.	5 + 1
3	Game theory and competition: Introduction to the concept of Game theory. Competitive duopoly pricing and product decisions. Price Discrimination through Versioning and Bundling. Product bundling. The design and pricing of product bundles	5 + 1
4	Network Effects: Product Design, Launch, and Pricing Strategies, Multiple Dimensions of Value – Technology's standalone value, Networks Externality value. Markets/products as networks, positive feedback, compatibility. Adoption dynamics for network goods. Managing network goods. Competing for Design Dominance in Markets with Network Externalities. Dynamic pricing, product complements and bundles, versioning, product launch strategy	5 + 1
5	Strategies for Platforms and Two-Sided Markets: Determining which side to charge, how to balance growth across both networks. Determining firm structure in platform market.	5 + 1

Learning Resources:

1	Text Books	Carl Shapiro and Hal R. Varian. Information rules: a strategic guide to the network economy. Boston, MA, USA: Harvard Business School Press, 1998 Economics of Information Technology: An Introduction , Hal R. Varian, Joseph Farrell, and Carl Shapiro. Cambridge University Press, 2005.
2	Reference Books	Competition, Regulation and Strategy: The Information Technology Industry, Morris Game Theory and Business Strategy , Oberholzer-Gee and Yao
3	Supplementary Reading Material	The Economics of Network Industries. Oz Shy , Cambridge University Press, 2002.
4	Websites	The Information Economy and Network Economics (at UC Berkeley): lots of pointers to research resources http://www2.sims.berkeley.edu/resources/infoecon/Networks.html and data http://www.ifm.eng.cam.ac.uk/research/ctm/ http://hbswk.hbs.edu/ http://knowledge.wharton.upenn.edu/

5	Journals	<p>DeLong, J. B. and Froomkin, A. M. (2000). "Speculative Microeconomics for Tomorrow's Economy". Vol 5 No. 2, February 2000</p> <p>Nagle, T. (1984). Economic Foundations for Pricing. <i>Journal of Business</i>, 57</p> <p>Sahay, A. (2007), "How to Reap Higher Profits with Dynamic Pricing", <i>Sloan Management Review</i>, 48(4/Summer): 53-60.</p> <p>Lancaster, K. (1966). A New Approach to Consumer Theory. <i>Journal of Political Economy</i>, 74(2), 132-157.</p> <p>Brooks, Christopher H., Robert S. Gazzale, Rajarshi Das, Jeffrey O. Kephart, Jeffrey K. MacKie-Mason, and Edmund H. Durfee (2002). "Model Selection in an Information Economy: Choosing What to Learn," <i>Computational Intelligence</i>, vol. 18, no. 4 (Nov.): 566-582.</p> <p>Shapiro, Carl, and Hal Varian. "The Art of Standards Wars." <i>California Management Review</i> 41, no. 2 (1999): 8-32.</p> <p>Hamel, Gary, Yves L. Doz, and C. K. Prahalad. "Collaborate With Your Competitors — And Win." Harvard Business Review, January 1, 1989.</p> <p>Katz, M.L., Shapiro, C.: Network Externalities, Competition, and Compatibility, <i>American Economic Review</i> vol. 75, 1985, pp. 424 – 440</p>
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Semester	III	Elective	Technology Management
Course Code	309TM	Type	Subject – Elective
Course Title	Advanced Manufacturing Technology		

Course Objectives:

1	To provide students with an understanding of the key concepts of advanced manufacturing technology used in modern manufacturing facility
2	To develop an understanding of the principles of operation and characteristics of specific technologies and processes.
3	To appreciate the effect of technologies on global manufacturing and competitiveness.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to Advance Manufacturing Technology: Introduction to Advanced Manufacturing Technologies, Production System facilities, Manufacturing Support Systems, Automation in Production System, Manufacturing Operations, Product/Production Relationships, Cost of Manufacturing Operations.	5 + 1
2	Material Handling and Identification Technologies: Introduction to Material Handling, Considerations in Material Handling System Design, Material Transport Systems, Automated Guided Vehicle Systems, Cranes and Hoists, Storage Systems, Automated Storage Systems, Engineering Analysis of Storage Systems, Automatic Data Capture, Bar Code Technology.	5 + 1
3	Manufacturing Systems: Introduction to Manufacturing Systems, Components of a Manufacturing System, Conventional Manufacturing System, and Manufacturing Progress Functions. Single Station Manufacturing Cells: Single Station Manned Workstations, Single Station Automated Cells, Applications, Analysis of Single Station Cells.	5 + 1
4	Group Technology and Cellular Manufacturing: Part Families, Parts Classification and Coding, Production Flow Analysis, Cellular Manufacturing, Application Considerations in Group Technology, Quantitative Analysis in Cellular Manufacturing, Flexible Manufacturing Systems. Why consider FMS? What are FMS advantages over conventional manufacturing? FMS Management & Control Functions & Performance Statistics, FMS applications.	5 + 1
5	Rapid Manufacturing Processes: Classification of Rapid Manufacturing (RM) Processes- Additive/Subtractive/Formative Principles of various rapid manufacturing process, Typical Process Chain; Materials for RM; Operating principles, and characteristics of R M processes; Introduction of alternative technologies like Laminated Object Manufacturing , Shaped Deposition, Stereo-lithography , 3D printing, Selection of RM processes based on the product requirements; Process selection, Applications and Case studies.	5 + 1

Learning Resources:		
1	Text Books	Automation, Production Systems and Computer-Integrated Manufacturing, Mikell P. Groover, Prentice Hall. Flexible Automation and Intelligent Manufacturing, Begell House, 1998
2	Reference Books	Manufacturing Engineering and Technology, S.Kalpakjian, S.Schmid, Prentice Hall, 2006, 5th Edition.
3	Supplementary Reading Material	Computer Integrated Manufacturing and Engineering, Rembold, Nnaji, Storr, Addison Wesley, 1994 Computer-Aided Manufacturing, Tien-Chien Chang, Richard A. Wysk, Hsu-Pin Wang, Prentice Hall Gibson, I, Rosen, D W., and Stucker, B., Additive Manufacturing Methodologies: Rapid Prototyping to Direct Digital Manufacturing, Springer, 2010. Hopkinson, N, Haque, R., and Dickens, P., Rapid Manufacturing: An Industrial Revolution for a Digital Age: An Industrial Revolution for the Digital Age, Wiley, 2005.
4	Websites	http://www.wohlersassociates.com http://www.materialise.com/materialise/view/en/449917-Rapid+Manufacturing.html http://www.ifm.eng.cam.ac.uk/research/ctm/ http://knowledge.wharton.upenn.edu/ http://www.technologymanagementchicago.org/
5	Journals	International Journal of Technology Management Journal of Technology, Management and Applied Engineering Journal of Manufacturing Science and Engineering, Transactions of the ASME

Semester	III	Elective	Technology Management
Course Code	310TM	Type	Subject – Elective
Course Title	Product Strategy for High Technology Companies – I		

Course Objectives:

1	To increase student's awareness of the forces driving the competition among technology-based companies & need for strategic approach to product management in high technology companies.
2	To provide an understanding of decision making frameworks for managing products in high technology companies.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Strategy & Vision: Impaired Vision - Tunnel Vision, Blindness, Shortsightedness, Hallucination. Exceptional Vision – 20/20 Vision, Peripheral Vision, Foresighted Vision. Core Strategic Vision – Focus, Clarity, Completeness, Feasibility. Change in Vision – Need for Clarification, Evolution, Obsolescence. Vision Guides Strategy. Aligning Vision and Strategy: CSV Boundary Framework, Aligning Financial Plans/Economic Model. Aligning Market Trends. Aligning Technology Trends/Strategy. Aligning Product Strategy. Aligning the Business Charter. Aligning Core Competencies / Value Chain.	5 + 1
2	Product Platform Strategy: Ingredients of Product Platform Strategy. Benefits of Platform Strategy. Product Platform of Microsoft, Apple, AT & T, Walt Disney, Amazon, etc. Product Platform Management. Product Line Strategy: Ingredients of Product Line Strategy. Product Line Strategy of Amazon, HP Color, Dell, Walt Disney, etc. , Product Line Management.	5 + 1
3	The MPP framework: Product Structure Strategy. The Market Platform Plan (MPP) Framework – Markets & Market Segments, Economic and Business Case, Product Offerings and Product lines, Product Platforms, Value Chain Strategies and Ongoing MPP Management. Managing the Technology Elements.	5 + 1
4	Successful Expansion Paths: Leveraging Product or Technical Competencies. Leveraged Expansion framework. Leveraged Expansion Paths.	5 + 1
5	Strategic Balance and Portfolio Management: Strategic Balance Tradeoffs - Focus versus Diversification, Short Term versus Long Term, Current Platforms versus New Platforms, One Business Unit versus Another, Research versus Development. High versus Low Risk, Financial Return. Setting priorities. Beyond Portfolio Management.	5 + 1

Learning Resources:		
1	Text Books	Product Strategy for High Technology Companies, Michael McGrath, MGH, 2nd Edition.
2	Reference Books	Marketing of High-Technology Products and Innovations by Jakki Mohr, SanjitSengupta, Stanley Slater, 2nd Edition
3	Supplementary Reading Material	Marketing High Technology by William H. Davidow Product Marketing for Technology Companies by Mark Butje, Elsevier
4	Websites	http://hbswk.hbs.edu/ http://knowledge.wharton.upenn.edu/ http://www.technologymanagementchicago.org/ http://www.ifm.eng.cam.ac.uk/research/ctm/
5	Journals	International Journal of Technology Management International Journal of Technology Intelligence and Planning

Semester	III	Elective	Technology Management
Course Code	311TM	Course Type	Subject – Elective
Course Title	Foundations of Knowledge Management		

Course Objectives:	
1	To familiarize the participants with basic concepts of data, information & knowledge
2	To highlight importance of knowledge management in complex environments.
3	To provide an overview of systems, technologies & infrastructure required for knowledge management

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to Knowledge 1.1 Meaning of data, information, knowledge and expertise 1.2 Meaning of epistemology, Types of Knowledge - Subjective & Objective views of knowledge, procedural Vs. declarative, tacit Vs. explicit, general Vs. specific. 1.3 Types of expertise – associational, motor skill, theoretical 1.4 Characteristics of knowledge – explicitness, codifiability, teachability, specificity 1.5 Reservoirs of knowledge	5 + 1
2	Introduction to Knowledge Management (KM) 2.1 Meaning of Knowledge Management, Forces Driving 2.2 Organizational issues in KM 2.3 KM Systems & their role 2.4 Relevance of KM in today's dynamic & complex environment 2.5 Future of Knowledge Management	5 + 1
3	KM Solutions for capture, sharing & applications 3.1 KM Processes, 3.2 KM Systems, 3.3 Mechanisms & Technologies	5 + 1
4	KM Infrastructure 4.1 Organizational Structure 4.2 Organizational Culture 4.3 Communities of Practice 4.4 Information Technology Infrastructure 4.5 Common Knowledge	5 + 1
5	KM Impact 5.1 Dimensions of KM Impact – People, Processes, Products & Organizational Performance 5.2 Factors influencing impact – universalistic & contingency views 5.3 Assessment of KM Impact – Qualitative & quantitative measures 5.4 Identification of appropriate KM solutions	5 + 1

Learning Resources:		
1	Text Book	Irma Becerra-Fernandez, Avelino Gonzalez, Rajiv Sabherwal (2004). <i>Knowledge Management Challenges, Solutions, and Technologies</i> . Prentice Hall. ISBN: 0-13-109931-0.
2	Reference Books	Elias M. Awad, Hassan M. Ghaziri (2004). <i>Knowledge Management</i> . Prentice Hall. ISBN: 0-13-034820-1. Donald Hislop, <i>Knowledge Management in Organizations</i> , Oxford 2nd Edition. Ian Watson (2002). <i>Applying Knowledge Management: Techniques for Building Corporate Memories</i> . Morgan Kaufmann. ISBN: 1558607609. Madanmohan Rao (2004). <i>Knowledge Management Tools and Techniques: Practitioners and Experts Evaluate KM Solutions</i> . Butterworth-Heinemann. ISBN: 0750678186. Stuart Barnes (Ed.) (2002). <i>Knowledge Management Systems Theory and Practice</i> . Thomson Learning. KimizDalkir, <i>Knowledge Management in Theory and Practice</i> , Elsevier, Butterworth-Hinemann. SheldaDebowski, <i>Knowledge Management</i> , Wiley India Edition.
3	Supplementary Reading Material	Chris Collison, Geoff Parcell (2001). <i>Learning to Fly: Practical Lessons from one of the World's Leading Knowledge Companies</i> . Capstone. ISBN: 1-84112-124-X. Helen N Rothberg and G Scott Erickson, <i>From Knowledge to Intelligence – Creating Competitive Advantage in the Next Economy</i> , Elsevier, Butterworth-Hinemann. Peter F. Drucker, David Garvin, Leonard Dorothy, Straus Susan, John Seely Brown (1998). <i>Harvard Business Review on Knowledge Management</i> . Harvard Business School Press. ISBN: 0875848818. Madanmohan Rao, <i>Leading with Knowledge – Knowledge Management Practices in Global Infotech Companies</i> , TMGH.
4	Websites	http://www.research.ibm.com/journal http://www.ifm.eng.cam.ac.uk/research/ctm/ http://hbswk.hbs.edu/ http://knowledge.wharton.upenn.edu/ http://www.technologymanagementchicago.org/
5	Journals	Dueck, G. (2001) Views of knowledge are human views. <i>IBM Systems Journal</i> , 40(4), 885-888. http://www.research.ibm.com/journal/sj/404/dueck.html . Lesser, E.L. & Storck, J. (2001) Communities of practice and organizational performance. <i>IBM Systems Journal</i> , 40(4), 831-841. http://www.research.ibm.com/journal/sj/404/lesser.html . Prusak, L. (2001) Where did knowledge management come from? <i>IBM Systems Journal</i> , 40(4), 1002-1007. http://www.research.ibm.com/journal/sj/404/prusak.html . Avram, G (2006). "At the Crossroads of Knowledge Management and Social Software" <i>The Electronic Journal of Knowledge Management</i> 4 (1), 1-10. http://www.eikm.com/volume-4/v4-i1/Avram.pdf . Marwick, A.D. (2001) Knowledge management technology. <i>IBM Systems Journal</i> , 40(4), 814-830. http://www.research.ibm.com/journal/sj/404/marwick.html . Gongla, P. & Rizzuto, C.R. (2001) Evolving communities of practice: IBM Global Services experience. <i>IBM Systems Journal</i> , 40(4), 831-841. http://www.research.ibm.com/journal/sj/404/gongla.html . Thomas, J.C., Kellogg, W.A. & Erickson, T. (2001) The knowledge management puzzle: human and social factors in knowledgemanagement. <i>IBM Systems Journal</i> , 40(4), 863-884. http://www.research.ibm.com/journal/sj/404/thomas.html .

Semester	III	Elective	Technology Management
Course Code	312TM	Type	Subject - Elective
Course Title	Business Intelligence and Analytics		

Course Objectives:	
1	To understand principles of BI and Analytics at conceptual level
2	To understand application areas for implementing BI and Analytics
3	To develop skills to design BI and Analytics projects

Syllabus:

Unit Number	Contents	Number of Sessions
1	Business Intelligence: definition , concept and need for Business Intelligence, Case studies BI Basics : Data, information and knowledge, Role of Mathematical models	5+1
2	Business Analytics at the strategic level: Strategy and BA , Link between strategy and Business Analytics, BA supporting strategy at functional level, dialogue between strategy and BA functions, information as strategic resource Business Analytics at Analytical level : Statistical data mining, descriptive Statistical methods, lists, reports, automated reports, hypothesis driven methods, data mining with target variables, cluster analysis, Discriminate analysis, logistic regression, principal component analysis.	5+1
3	Business Analytics at Data Warehouse Level Designing physical database , Deploying and supporting DW/BI system	5+1
4	Business Intelligence Architectures: Cycle of Business Intelligence Analysis, Development of Business Intelligence System, spread sheets, concept of dashboard, OLAP, SOA, decision engineering. BI Tools: Concept of dashboard.	5+1
5	BI Applications in different domains- CRM, HR, Production	5+1

Learning Resources:		
1	Text Books	Decision Support and Business Intelligence Systems, Turban, Sharda, Delen, Pearson
2	Reference Books	Business Intelligence Success Factors Tools for aligning your business in the global economy by Olivia Parr Rud, John Wiley and sons , 2009 The Profit impact of Business Intelligence by Steve Williams and Nancy Williams , Morgan Kauffman Publishers/ Elsevier, 2007 Business Intelligence: Practices, Technologies, and Management- Rajiv Sabherwal, Irma Becerra-Fernandez Business Analytics for Managers : Taking Business Intelligence beyond reporting by GERT H.N. Laursen, JesperThorlund, Wiley and SAS Business Series, 2010
3	Supplementary Reading Material	The Great Mind Challenge for Business, Vol. 1 and 2, IBM (I) Pvt. Ltd, Bangalore
4	Websites	www.sas.com www.smartdatacollection.com http://hbswk.hbs.edu/ http://www.ifm.eng.cam.ac.uk/research/ctm/
5	Journals	International Journal of Business Intelligence Research ,

Semester	III	Elective	Technology Management
Course Code	313TM	Type	Subject – Elective
Course Title	Designing Organizations for Uncertain Environment		

Course Objectives:	
1	To develop and acquire cognitive framework to understand and analyze the hyper-turbulent international business environment in the era of technological discontinuity.
2	To gain insights into strategic models that successful organizations deploy to develop their strategies.
3	To learn designing principles to create organizations capable of performing in uncertainty and hyper-turbulence.
4	To appreciate the HR/People systems and processes required for emergent organizational forms

Syllabus:

Unit Number	Contents	Number of Sessions
1	Understanding Emerging Environment: Emergence of Vertical/Type-5 Environment, Understanding Hyper-turbulence, Networks and Business Eco-Systems, Role of Information Technology in Shaping Business Environment, Understanding Impact of Technological Discontinuities, Law of Increasing Returns in Networked, Knowledge-Based Economy	5 + 1
2	Changing Models of Strategy: Strategy-Making under Uncertainty, Application of Complexity/Chaos Theory to Strategy, Strategy as "Sense-Making", Shaping and Adapting to Networks	5 + 1
3	New Forms of Organization: Organizations as Networks, Types of Network Organizations / Clusters, Self-Organizing Systems, Organizational Designs for Change and Innovation, Designing Principle for New Forms of Organizations	5 + 1
4	People and Process issues in Emerging Organizational Forms: Systems for Team-Based Functioning, High Performance Work Systems, Managing Empowerment and Accountability, Designing Roles and Systems for Flat, Networked Organization, Developing Competencies for New Organizational Forms	5 + 1
5	Case Studies	5 + 1

Learning Resources:		
1	Text Books	Adler, Nancy J., International Dimensions of organizational Behaviour, 4th Ed., South western College Publishing Company, Singapore, 2001. Bartlett, C.A. and S. Ghoshal, Managing Across Borders: The Transnational Solution, Century Business London, 1989.
2	Reference Books	Beamish, Paul w., Allen J. Morrison, Phillip M. Rosenzweig and Andrew C. Inkpen, International Management: Text and Cases, Irwin McGraw Hill, Boston, 2000. Fowler, Alam, Negotiation Skills: Skills and strategies, University Press Hyderabad, 1990.
3	Supplementary Reading Material	Helen, D., Management: Managing Across Borders and Cultures, Prentice - Hall, Upper Saddle River, New Jersey, 2000 Pucik, C.A. and Y. Doz and G. Healund, Managing the Global Firm , Routledge, London, 1990. Griffin, Ricky W. and Pustay, Michael W, International Business: A Managerial Perspective, Addison Wesley, Readings, 1999.
4	Websites	http://hbswk.hbs.edu/ http://knowledge.wharton.upenn.edu/ http://www.technologymanagementchicago.org/ http://www.ifm.eng.cam.ac.uk/research/ctm/
5	Journals	Indian Journal of International Business and Finances Asian Journal of Management Cases Global Journal of International Business Research Harvard Business Review International Business and Management Journal of International Business Journal of International Business and Economy

Semester	III	Elective	Technology Management
Course Code	314TM	Type	Subject – Elective
Course Title	Technology Transfer & Commercialization		

Course Objectives:

1	To understand the key concepts and options in technology transfer and commercialization
2	To provide the students with working knowledge and skills to plan and implement technology assessment, market assessment, alignment of technology in technology transfer and transmission process.
3	To provide the students with understanding on issues concerning roles of various intellectual property rights, patent search, sustainability and competitive advantage, science and technology policy, start-up, and licensing and spin-off companies.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: Technology Entrepreneurship and Innovation; Technology Transfer & Transmission Process; Technology Commercialization Process; Role of Intellectual Property in Protecting Innovation	5 + 1
2	Technology and Market Assessment: Customer Needs Driven Product Specifications; Negotiating the Deal and Marketing the Innovation; Financial Plan and Selection of Innovation Projects; Innovation and Risk Management; Technology Valuation and Impact Analysis; Market Assessment and Alignment of Technology.	5 + 1
3	Business Plan: Executive summary - Business description - Industry analysis and trends - Competitive analysis - Target market - strategic position – risk assessment - Market strategies - Design and development plan - Technology plan -management and organization - Financial factors - Financial features - sales, profits, cash flows and return on investment - Financial requirements - loan , equity source of collateral - Current business position- Relevant information about the company, its legal form of operation, when it was formed, the principal owners and key personnel - Major achievements - developments within the company that are essential to the success of the business.	5 + 1
4	Commercialization Strategy: Coming Full Circle in the Commercialization Loop; Business Plan Science and Technology Policy; Negotiating and Monitoring the Licensing Agreement; Start-Up and Spin-Off Companies; Joint Venture.	5 + 1
5	Case Studies: Case studies drawn from commercial, industrial and research applications.	5 + 1

Learning Resources:		
1	Text Books	<p>Cooke, I. and Mayes, P. (1996), Introduction to Innovation and Technology Transfer, Norwood: Artech House.</p> <p>Jolly, Vijay. 1997. Commercializing New Technologies, Getting From Mind to Market. Harvard Business School Press.</p> <p>Eskelin, A. (2001), Technology Acquisition: Buying the Future of your Business, Boston, Mass.: Addison-Wesley.</p> <p>Jolly, V.K (1997), Commercialization of New Technologies, Greeting from Mind to Market, Boston, Mass.: Harvard Business School Press.</p> <p>K. Allen, Bringing New Technology to Market, Upper Saddle River, NJ: Prentice-Hall, 2003.</p> <p>Braun, Ernest. 1998. Principles of technology assessment in Technology in Context: Technology Assessment for Managers. New York: Routledge.</p>
2	Reference Books	<p>Dorf, R.C. (1999), The Technology Management Handbook, Boca Raton, Fla.: CRC Press.</p> <p>Inzelt, A. and Hilton, J. (1999), Technology Transfer: From Invention to Innovation, Kluwer Academic, Norwell.</p> <p>Melissa, A. Schilling (2008), Strategic Management of Technology Innovation, McGraw-Hill International Edition, 2nd Edition, Singapore.</p> <p>Muir, A.E. (1997), The Technology Transfer System, New York: Latham Book Publishing.</p> <p>Parr, R.L. and Sullivan, P.H. (1996), Technology Licensing: Corporate Strategies for Maximizing Value, New York: John Wiley & Sons.</p>
3	Supplementary Reading Material	<p>Clifford, M. Gross and Joseph P. Allen, (2003) "Technology Transfer for Entrepreneurs – A Guide to Commercializing Federal Laboratory Innovation", Praeger Publishers, USA.</p> <p>Iansiti, M. (1998), Technology Integration: Making Critical Choices in a Dynamic World, Mass.: Harvard Business School.</p> <p>Paulson, E. (2001), The Technology M&A Guidebook, New York: John Wiley & Sons.</p> <p>Megantz, R.C. (2002), Technology Management: Developing and Implementing Effective Licensing Programs, New York: John Wiley & Sons.</p> <p>Spencer, R.H. (2003), Technology Best Practices, New York: John Wiley & Sons.</p> <p>Timmons, J.A. (2003), New Venture Creation, Sixth edition, Chicago: Irwin.</p>
4	Websites	<p>Protecting Innovations by Utility Models (http://www.wipo.int/sme/en/ip_business/utility_models/utility_models.htm).</p> <p>Ramsey. W.S., "Financing a New Venture", http://www.williamramseylaw.com/pages/Pfinancing.html</p>
5	Journals	<p>Cohen, M. W., "Patents and Appropriation_ Concerns and Evidence", Journal of Technology Transfer, 30(1&2): 57-71, 2005.</p> <p>Farris, G.F., "Research in Innovation Management and Technology Transfer in China", The Journal of Technology Transfer, 32(1-2) 123-126, April 2007.</p> <p>Johnson, S.D., Gatz, E.F., & Hicks, D. (1997). Expanding the content base of technology education: Technology transfer as a topic of study. <i>Journal of Technology Education</i>, 8(2).</p>

Semester	III	Elective	Technology Management
Course Code	315TM	Type	Subject – Elective
Course Title	Digital Marketing		

Course Objectives:

1	To confront students with discussions about the implications of an increasingly technological society.
2	To provide insights on how to implement marketing in a digital world.
3	To make students understand the traditional and new communication/marketing approaches to create competitive advantage in the Digital world.
4	To understand how the emergence of the technology will affect marketing, value creation, and consumer perceptions.

Syllabus:

Unit Number	Contents	Number of Sessions
1	The Technological Society: Introduction to internet and WWW technology including security. Introduction to digital marketing and e-commerce: Business models, Business Models on the Web. Public policy: social, legal, ethical, political issues for e-commerce. Mobile e-commerce, Killer apps for strategic goals. Retailing (e-tailing) , Disintermediation , Channel conflict. Pricing Strategies in 'fluid e-retail markets.' Services online : Online content & digital media , B2B e-commerce , Global opportunities and issues.	5 + 1
2	Marketing in the Age of Fragmentation: Mapping Digital Marketing Media, The Long Tail , The Economics of the Attention Economy , Goldhaber's Attention Economy. Know your customer - Buyer behavior, segmentation, targeting. The customer experience - Web design, customer service, Quality of the online experience. Characteristics of E Marketing: Addressability, Interactivity, Accessibility, Connectivity, Control.	5 + 1
3	Digital Marketing Tools: Overview, the website, branding, banner ads, affiliate marketing. Paid search, search engine optimization (SEO), comparison shopping engines. Email, RSS, podcasting, Blogs, Viral, Wikis, CRM. Auctions , Portals. Online Branding: When they talk back... Communication and Branding in the Networked Economy. Search Engine Marketing. Online Communities and Innovation Communities, Mass Collaboration and Crowd-sourcing: How does the Internet help Innovate? Social networks , Value Creation through Social Networking.	5 + 1
4	Web analytics & marketing metrics: Marketing research. The New Rules of Customer Intelligence: Laboratory Marketing and Customer Branding. Understanding Digital Analytics, Acquisition, Engagement and Conversion, Measuring Social Impact, Multi-Touch Analytics, Mobile Analytics, The Future of Digital Analytics: Big Data.	5 + 1

<p>Project on web marketing: Each student shall undertake a project on web marketing and submit it as a document (Word or PDF) or PowerPoint or other interactive presentation.</p> <p>Student shall apply basic principles learned in this course. Student is expected to develop a web marketing plan for any organization – real or imaginary (proposed).</p> <p>The project shall include the following:</p> <ol style="list-style-type: none"> 1. Company Overview 2. Product and/or Service Description 3. Web Sales and Marketing Goals (traffic, sales, leads, brand awareness, etc.) 4. Website Purpose 5. Target Customer 6. Market Description/Competitive Analysis 7. SWOT Analysis 8. Unique Selling Proposition or Value Proposition 9. Revenue Generation 10. Web Marketing Medium Suggestion(s) (How will you get there?) 11. New Website/Web Redesign 12. Search Engine Marketing 13. E-mail 14. Online Advertising 15. Social Media 16. Affiliate Marketing 17. Website optimization/analytics 18. Viral Marketing 19. Traditional Media 20. Online Networking 21. Marketing Execution Plan 22. Budget 23. Tracking and Analysis (how can you tell when you're there, or what's working?) 	<p>5 + 1</p>
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Learning Resources:		
1	Text Books	Understanding Digital Marketing: Marketing Strategies for Engaging the Digital Generation by Damian Ryan, Calvin Jone. Kogan Page. Marketing 2012 by William M. Pride, O. C. Ferrell, Cengage Learning. Integrated Marketing Communications: Asia Pacific Edition by William Chitty, Nigel Barker, Michael Valos, Terence A. Shim, Cengage Learning. DigiMarketing: The Essential Guide to New Media and Digital Marketing by Kent Wertime, Ian Fenwick Web Analytics 2.0: The Art of Online Accountability and Science of Customer Centricity by Avinash Kaushik
2	Reference Books	Wiki Brands – Reinventing Your Company In A Customer Driven Market Place, Sean Moffitt and Mike Dover, TMGH. Advanced Web Metrics with Google Analytics by Brian Clifton. Data-Driven Marketing: The 15 Metrics Everyone in Marketing Should Know Mark Jeffery
3	Supplementary Reading Material	Direct and Digital Marketing in Practice by Brian Thomas, Matthew Housden
4	Websites	http://knowledge.wharton.upenn.edu/ http://www.technologymanagementchicago.org/ http://www.ifm.eng.cam.ac.uk/research/ctm/
5	Journals	-

University of Pune

MBA SYLLABUS: SEMESTER IV

Semester	IV	Specialization	NA
Course Code	401	Type	Generic Core
Course Title	Managing for Sustainability		

Course Objectives:	
1	Apply general ethical principles to particular cases or practices in business.
2	Think independently and rationally about contemporary moral problems.
3	Recognize the complexity of problems in practical ethics.
4	Demonstrate how general concepts of governance apply in a given situation or given circumstances.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Corporate social responsibility: Concept, The nature of corporate responsibility and corporate citizenship, Relevance in the present day business environment.</p> <p>Corporate social responsibility and stakeholders: Internal and external stakeholders, Responsibility to various stakeholder groups, Interest and influence of various stakeholder groups, Formulating and implementing a policy for corporate social responsibility</p> <p>Bottom of the pyramid opportunities: Issues and opportunities for business in socially and environmentally sensitive world, Social and environmental problems and how they shape markets.</p>	7 + 2
2	<p>Sustainable Development: concept, definition of sustainable development, need, importance, education, Philosophical development, Gandhian Thought on Sustainable Development, Sustainable Development and social framework, equitable distribution, difference between sustainable development and green development, criticism.</p> <p>Stakeholder Impact: Stakeholders and the power they wield, Reducing socio-environmental costs and risks: managing the downside, Driving revenues and creating intangible value: managing the upside</p>	7 + 2
3	<p>3.1 Business case for sustainable development: Three dimensions of sustainable development</p> <p>1) Environmental: Atmosphere, fresh water and oceans, land use, management of human consumption, energy, food, waste management, Understanding ecological "footprint": Eco-tracking, carbon marketing, carbon credits, economics of sustainability, Designing for the environment and "greening" the supply chain, regulation, case studies.</p> <p>2) Economic: environment degradation and economic growth, nature as an economic externality, economic opportunity.</p> <p>3) Social: Peace, security, social justice, sustainability and poverty, human relationship to nature, human settlements</p> <p>3.2 Study of business models for sustainable development: Indian & Global perspectives.</p> <p>3.3 Sustainability reporting: Triple bottom line reports - The content of sustainability reports (also CSR reports, ESG reports, social and environmental reports)</p> <p>3.4 Social accountability standard - ISO 26000: Social responsibility guidance standard, Global Compact Principles, Environmental Impact Assessment, Life Cycle Analysis, Social Impact Assessment</p>	7 + 2

4	<p>4.1 Corporate Governance : Meaning – OECD principles, Difference between governance and management, Purpose of good governance, Potential consequences of poor corporate governance, Business failure and the contribution of poor governance</p> <p>4.2 Relevant Theories: Agency theory, transaction cost theory, stakeholder theory. Friedman 's theory of CSR.</p> <p>4.3 Stakeholder value approach: Stakeholder value approach, Enlightened stakeholder approach, stakeholder approach to Governance, risk and financial stability. The balancing of conflicting objectives</p> <p>4.4 Key issues in corporate governance: Role and composition of the board, remuneration of directors and senior executives, accounting and audit, internal controls, checks and governance, relations with shareholders and other stakeholders. Clause 49 of Listing agreement & Corporate Governance Code, CEO, CFO Certification. Role of regulators – SEBI, IRDA, RBI, ED, etc.</p> <p>4.5 Applying best practice in governance: Voluntary and regulatory approaches, rules or principles, concept of 'comply or explain'. Governance problems for global companies and groups. Governance issues in the public sector. Governance issues in the voluntary sector (NGOs and charitable organizations)</p> <p>4.6 Governance aspects: Sarbanes-Oxley Act 2002: Section 302: CEO/CFO certifications, Section 404(a): internal control report, Governance and role of auditors and audit committee.</p> <p>4.7 Case Studies on Corporate Governance: Satyam , Infosys, Tata, Wipro.</p>	7 + 2
5	<p>Corporate Ethics:</p> <p>5.1 The Ethical Value System: Universalism, Utilitarianism, Distributive Justice, Social Contracts, Individual Freedom of Choice, Professional Code,</p> <p>5.2 Values: Importance, Sources of Value Systems, Values across Cultures</p> <p>5.3 Indian Values and Ethics: Respect for Elders, Hierarchy and Status, Need for Security, Non – Violence, Cooperation, Simple Living high Thinking, Rights and Duties, Ethics in Work life, Holistic relationship between Man and Nature, Attitudes and Beliefs.</p> <p>5.4 Business Ethics: Nature, Characteristics and Needs, Ethical Practices in Management, Ethical Values in different Cultures, Culture and Individual Ethics, Relationship between Law and Ethics, Impact of Laws on Business Ethics.</p> <p>5.5 Ethics and Corporate Excellence: Code of Ethics in Business Houses, Strategies of Organizational Culture Building, Total Quality, Customer Care, Care of the Employees as per Statutes, Objective and Optimistic Approach.</p> <p>5.6 Indian and Global case studies</p>	7 + 2

Note:

Introductory treatment of all topics is expected to sensitize the students.
Compliance / Regulatory aspects should not be overemphasized.

Learning Resources:		
1	Text Books	<p>Corporate Governance by Christine A Mallin, Oxford University Press.</p> <p>Corporate Governance in India – An Evaluation by S C Das, PHI – Eastern Economy Edition.</p> <p>Corporate Governance Codes, Systems and Practices by S C Das, PHI – Eastern Economy Edition.</p> <p>Triple Bottom Line Reporting and Corporate Sustainability by S Singh, PHI – Eastern Economy Edition.</p> <p>Ethics, Business & Society Edited by Ananda Das Gupta, Response Books</p> <p>Business Ethics by Crane and Matten, Oxford University Press, 2nd Edition.</p> <p>Business Ethics – An Indian Perspective, by Ronald Francis and Mukti Mishra, TMGH.</p> <p>Corporate Governance Values and Ethics by Dr. Neeru Vasishth & Dr. Namita Rajput, Taxman</p> <p>Corporate Governance – Principles, Mechanisms & Practice, Swami Dr. Partasarathy, Biztantra Publications.</p>
2	Reference Books	<p>The Satyam Saga – Business Standard Publication</p> <p>Ethics for the Real World by Howard and Korver, Harvard Business Press.</p> <p>Ethics in Practice by Kenneth Andrews, Harvard Business School Press.</p> <p>Mastering Business in Asia by Peter Wallace and John Zinkin, Wiley India.</p> <p>The Sustainable Enterprise – Profiting from best practice by Simmons and Simmons, Kogan Page, 2nd Edition.</p> <p>Corporate Governance – Principles, Policies & Practices, by Bob Tricker, Oxford University Press.</p> <p>Corporate Governance – Principles, Policies & Practices, by A C Fernando, Oxford University Press.</p> <p>Corporate Governance by K Prasad, PHI – Eastern Economy Edition.</p> <p>Corporate Governance – Global Concepts & Practices, Dr. S Singh, Excel Books.</p>
3	Supplementary Reading Material	<p>An Introduction to Business Ethics by Joseph DesJardins, TMGH, 2nd Edition.</p> <p>Business Ethics – Text and Cases by C S V Murthy, Himalaya Publications, 2nd Revised Edition.</p> <p>Case Studies on Ethics and Corporate Governance Vol I and II , ICFAI Books</p>
4	Websites	<p>www.icgn.org/</p> <p>http://www.oecd.org/document/49/0,3343,en_2649_34813_31530865_1_1_1_1,00.html</p>
5	Journals	<p>Business & Society</p> <p>Corporate Governance: An International Review</p> <p>Corporate Governance: The International Journal of Effective Board Performance</p> <p>Journal of Business Ethics</p> <p>Ethics & Accountability in a Context of Governance & New Public Management</p>

Semester	IV	Specialization	NA
Course Code	402	Type	Generic Core
Course Title	Dissertation		

Course Objectives:	
1	To offer the opportunity for the young students to acquire on job the skills, knowledge, attitudes, and perceptions along with the experience needed to constitute a professional identity.
2	To provide means to immerse students in actual supervised professional experiences
3	To gain deeper understanding in specific areas.

Dissertation: Towards the end of the Programme (Sem IV – Feb/March) the student shall work for 60 hours under the supervision of the Faculty and carry out a dissertation and submit a structured report in TWO hard copies & one soft copy (CD). The report may be printed on both sides of the paper.

The completion of the dissertation / project shall be certified by the Faculty Guide & approved by the Director of the Institute.

The Institute shall conduct a viva-voce for evaluation of the dissertation, for 100 marks.

The Panel shall comprise of 2 internal Faculty members (One who has guided the student and the other one as Jury) nominated by the Director. The Institute may invite an additional external examiner from the industry.

MBA SYLLABUS: SEMESTER IV
MARKETING MANAGEMENT - SPECIALIZATION

University of Pune

Semester	IV	Specialization	Marketing
Course Code	403MKT	Type	Subject Core
Course Title	Services Marketing		

Course Objectives:

1	To emphasize the significance of services marketing in the global economy.
2	To make the students understand the deeper aspects of successful services marketing.
3	To provide insights to the challenges and opportunities in services marketing.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Introduction to Services marketing :</p> <p>Definition, Significance, Characteristics of Services: Intangibility, Inconsistency, Inseparability and Inventory. Classification of Services.</p> <p>Consumer Behavior in Services: Search, experience and credence attributes, Pre & post experience evaluation, factors influencing customer expectation of service, Moment of truth</p> <p>Extended Marketing Mix for Services: Need for additional three marketing mix elements in Services</p> <p>Financial & economic impact of service</p>	7 + 2
2	<p>Traditional Marketing Mix Elements in Services:</p> <p>Service Product: Customer perception, Customer satisfaction, Tolerance zone, Service quality - ServQual, GAP model and Critical incident model, Concept of loyalty & creation of a loyalty programme, Service recovery, Impact of service failures versus product failures, Nature of complaining behavior— Complaint Resolution, Service Recovery Process.</p> <p>Service Pricing: Costs of service delivery, Customer Profitability Measurement, Revenue management Techniques, Price Discrimination and Segmented Pricing.</p> <p>Service Place: Delivering services through intermediaries & electronic channels.</p> <p>Service Promotion: Integrated service marketing communication, Visual merchandising, Referrals, Challenge of Service communication</p>	7 + 2
3	<p>Service Process:</p> <p>Service design & standards – Process service blue print</p> <p>Demand & capacity management ,</p> <p>Quality function deployment (QFD), Standardization (hard / soft measures),</p> <p>Service delivery, self-service technologies</p>	7 + 2
4	<p>People & Physical Evidence:</p> <p>Employees' Role in Service Delivery, Service Culture: Internal Marketing, Service-Profit Chain, Emotional labor</p> <p>Customers' role in service delivery, Customer as a co-producer</p> <p>Physical Evidence: Experience Servicescape elements (to include architectural design), Virtual Servicescape</p>	7 + 2
5	<p>Applications of Service Marketing: Marketing in Tourism, Hospitality, Airlines, Telecom, IT & ITES, Sports & Entertainment, Logistics, Healthcare sectors (Examples/Case studies on these applications are expected)</p>	7 + 2

Learning Resources:		
1	Text Books	Services Marketing by Zeithaml, Bitner, Gremler & Pandit, TMGH, 4th Edition Services Marketing by Christopher Lovelock Services Marketing, Rama Mohan Rao, Pearson Services Marketing by Rampal & Gupta Services Marketing by Helen Woodruff
2	Reference Books	Services Marketing: Concepts and Practices by Ramneek Kapoor, Justin Paul & Biplab Halder, McGraw Hill Services Marketing by Rajendra Nargundkar, McGraw-Hill, 3 rd Edition
3	Supplementary Reading Material	C H Lovelock, Journal of Marketing Vol. 4 Summer 1983, pages 9-20
4	Websites	www.itsma.com/
5	Journals	The service encounter: diagnosing favorable & unfavorable incidents by Bitner M. J., Booms B. H. & Tetreault M. S., Journal of marketing, Jan 1990, Vol. 54, pp. 71-84. Marketing intangible products & product intangibles by Levitt T., Harvard Business Review, 1981, Vol. 59, pp. 95-102 The services marketing: an approach by Blois K. J., European journal of marketing, Vol. 8, Issue 2, 1974, pp. 137-145 Services marketing is different by Berry L.L., Business, May-June, 1980, pp. 24-30. Putting the Service Profit Chain to Work by Heskett, James L., Jones, Thomas O., Loveman, Gary W., Sasser, W. Earl, and Schelsinger, Leonard A. Harvard Business Review, (March-April 1994) pp. 164-174 The customer as co-producer by Solveig Wikström, European Journal of Marketing, 1996, Vol. 30, Issue 4 Customer contributions & roles in service delivery by Bitner, Faranda, Hubbert & Zeithaml, International Journal of Services and Industrial Marketing, Vol. 8, Issue 3, pp. 193-205 Delivering Quality Service; Balancing Customer Perceptions and Expectations by Zeithaml, Parasuraman & Berry. Free Press, 1990. Service quality models: A review by Sheth, Deshmukh & Vrat IJQRM, 2005, Vol. 22, Issue 9, pp. 913-49

Semester	IV	Specialization	Marketing
Course Code	404MKT	Type	Subject Core
Course Title	Sales & Distribution Management		

Course Objectives:

1	To provide foundations in components of sales and distribution management.
2	To introduce various facets of the job of a sales manager.
3	To focus on decision making aspects and implementation of decisions in sales and distribution management.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Introduction to Sales and Distribution Management:</p> <p>1.1 Sales Management: Objectives, Nature & Scope, Sales Environment, Sales Planning, Strategic role of sales management</p> <p>1.2 Marketing Channels: Functions and Significance, Structure - Vertical and Horizontal, Symbiotic, Role of marketing channels in the dynamic market place, Designing the Market Channel system, Channels for Consumer goods, Industrial goods, Inter Dependency of Sales & Distribution</p> <p>1.3 Managing Marketing Channels: Channel Policies, Choice of the channel, Organizational Pattern in the Channel, Assessing Channel Performance, Causes for Channel Conflict & Techniques to overcome conflict, Channel Information System</p>	8 + 2
2	<p>Organizing the Sales Force:</p> <p>2.1 Objectives & Structure of Sales Organization,</p> <p>2.2 Organizing the Sales Force, Recruitment, selection and training the sales force,</p> <p>2.3 Field Sales Planning , Compensation and Evaluation of Sales Force</p>	4 + 2
3	<p>Sales Planning & Control:</p> <p>3.1 Sales Planning: Sales Forecasting & Budgeting, Sales Quotas and Targets</p> <p>3.2 Sales Control: Reporting Formats for Primary and Secondary Sales, Monthly Sales Plan, Territory Sales and Coverage Plan, Daily Sales Call Report, Expired Goods and Breakage Return Report, Fortnightly Sales Review Report, Order Booking Report, Monthly and Quarterly Sales Report.</p> <p>3.3 Sales Audit: Sales Force Productivity Indicators (Value and Volume) – Territory Productivity, Per Person per Month Productivity, Sales to Marketing Expenses Ratio.</p> <p>3.4 Specialized Techniques in Selling: Tele / Mobile Marketing, Online Marketing, E Commerce</p>	8 + 2
4	<p>Marketing Channels</p> <p>4.1 Significance and role of channels, C&F Agents, Types of the Wholesalers</p> <p>4.2 Franchising: Significance and importance of Franchisee in Channel Decision –Advantages of Franchisee –Process of appointment of Franchisee-Franchiser Franchisee relationship. Rol calculation at Dealer Level.</p>	+ 2
5	<p>Retailing:</p> <p>5.1 Nature and Importance of Retailing , Types of Retailers, Organized & unorganized Retailing Formats, Retail Merchandising, Retail Decision Location and Size ,</p> <p>5.2 Retailer Promotion: Advertising, Sales Promotion and POP Promotion, Shelf Management, Communicating with the retailer customer, Economic cost of retailing, New Trends in Retailing, Role and Significance of Multi-level Marketing</p>	9 + 2

Learning Resources:		
1	Text Books	Sales and Distribution Management by Havaldar & Cavale, TMGH Sales Management by Still, Cundiff & Govani, Pearson Education Sales and Distribution Management, SL Gupta, Excel books
2	Reference Books	Retailing Management by Michael Levy & Barton Weitz, TMGH, 5 th Edition
3	Supplementary Reading Material	Retail Management by Gibson Vedamani , Jaico Books Retailing Management by Swapna Pradhan , TMGH
4	Websites	http://www.franchiseindia.com/ http://www.franchising.com/
5	Journals	How Potential Conflict Drives Channel Structure: Concurrent (Direct and Indirect) Channels by Sa Vinhas, Alberto; Anderson, Erin., Journal of Marketing Research, Nov2005, Vol. 42 Issue 4 Channel Structure and Strategic Choice in Distribution Channels by Wren, Brent M., Journal of Management Research, Aug2007, Vol. 7 Issue 2, Effects Of Sales Force Automation Use On Sales Force Activities And Customer Relationship Management Processes by Moutot, Jean-Michel; Bascoul, Ganaël., Journal of Personal Selling & Sales Management, Spring2008, Vol. 28 Issue 2 Using your sales force to jump-start growth by Hancock, Maryanne; Hatami, Homayoun; Rayan, Sunil. McKinsey Quarterly, 2011, Issue 2 Franchising: An Overview by Windeshausen H. Nicholas; Joyce, Mary L., American Journal of Small Business, Jan77, Vol. 1 Issue 3 Sales Employees Compensation: An Optimal Balance Between Fixed and Variable Pay by Madhani, Pankaj M., Compensation & Benefits Review., Jul/Aug2009, Vol. 41 Issue 4, p44-51.

Semester	IV	Specialization	Marketing
Course Code	405MKT	Type	Subject - Elective
Course Title	Retail Marketing		

Course Objectives:

1	To provide insights into all functional areas of retailing.
2	To give an account of essential principles of retailing.
3	To give a perspective of the Indian retailing scenario.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>1.1 Overview of Retailing: Definition, Scope, Role of Retailer in the Channel of Distribution, Benefits of Retailing, Functions of Retailers, Evolution of Retailing – Global Retail Scenario – Indian Retail Scenario – Drivers of retail change in India - Emerging Trends and Opportunities in India, Retailing Industry – Size of Retail in India and its components.</p> <p>1.2 Retailing Environment: Economic Environment – Legal Environment – Technological Environment – Competitive Environment – Indian Experience in Retailing – Foreign Direct Investment in Retail in the Indian context.</p> <p>1.3 Classification of Retailers: Classification by Ownership – Independent Stores – Chain stores – Franchise Stores – leased Departments – Cooperatives, Classification by Strategy – General Merchandise Retailers – Discount Stores – Specialty Stores – Off Price Retailers, Classification by Product Line – Department stores – Supermarkets – Hypermarkets – Convenience Stores - Services retailing.</p> <p>1.4 Non Traditional Retail Classifications: Non store retailer – Direct Marketing – Catalog Marketing– Telemarketing – TV Home shopping – Automatic vending – E – Tailing – Malls and other formats</p>	5 + 1
2	<p>2.1 Retail Market Strategy: Definition, target market & retail format, Differentiating, Growth strategies, Strategic Retail planning process.</p> <p>2.2 Strategic Profit Model : Gross Margin Return On Inventory Management (GMROI)</p> <p>2.3 Retail Location & Site Selection: Types of retail locations, Steps involved in choosing a retail location, Methods of evaluating a trading area,</p> <p>2.4 Store Layout, Design & Visual Merchandising: Store planning, Store Design and the retailing mix, Space mix, effective space management, Store layout – circulation plan, Floor Space management. Markups and Markdowns, Shrinkage in merchandise management.</p>	5 + 1
3	<p>3.1 Retail Administration : Store management, Human resource management, Information System & SCM</p> <p>3.2 Planning Merchandise Assortment: Category management, Buying organization, Assortment planning process, Analyzing merchandise performance.</p> <p>3.3 Planning Merchandise Assortments: Organizing the buying process by categories- Category Management – The Buying Organization – Setting Financial Objectives for the Merchandise Plan – Gross Margin Return On Inventory Management (GMROI), Measuring Inventory Turnover – Sales Forecasting – Assortment Planning Process – Variety – Assortment – Product Availability – Tradeoffs between Variety, Assortment and Product Availability – Assortment Plan, Product Mix Trends.</p>	5 + 1

4	4.1 Merchandise Pricing: Setting the Retail Price- Pricing Objectives – Pricing strategies – Pricing Methods – Pricing Adjustments – Price Discrimination 4.2 Retail Communication Mix: Role of Communication in Retailing – Methods of communication – Planning the Retail Communication Programs – Implementing and Evaluating the Retail Communication Programs	5 + 1
5	5.1 Mall Management: Major players nationally & internationally, Role of promoter, developer& retailer: selecting tenant stores, Managing experience, target footfalls & their conversion to sales. Identifying customers, differentiating the mall, real estate pricing, Measuring duration & sequence of visit, Number & nature of outlets visited & spend of share of wallet across the tenants. 5.2 Challenges to Indian Retail Sector : Political & legal, economic, real estate pricing, customer coming of age to shop in organized sector	5 + 1

Learning Resources:

1	Text Books	Retailing Management by Michael Levy & Barton Weitz, TMGH, 5 th Edition Retailing Management by Swapna Pradhan , TMGH
2	Reference Books	Retail Management by Gibson Vedamani , Jaico Books Retailing by Patrick Dunne, Robert Lusch, David Griffith, Thomson Learning, Indian reprint. Retail Marketing Management by David Gilbert, Pearson Publication. Retail Management, Arif Sheikh, Himalaya Publishing
3	Supplementary Reading Material	It happened in India by Kishore Biyani, Rupa & Co. Business Today, November1999, Mall Management, pp. 7-22
4	Websites	http://www.cci.in/pdf/surveys_reports/indias_retail_sector.pdf http://www.indiaretailing.com/ http://www.imagesretail.com/
5	Journals	Organized Retailing in India: Upstream Channel Structure and Management by Dabas, Chitra Srivastava; Sternquist, Brenda; Mahi, Humaira., Journal of Business & Industrial Marketing, 2012, Vol. 27 Issue 3 India: Shopping with the Family by Sheth, Kartik N.; Vittal, Ireena., McKinsey Quarterly, 2007, Issue 4 The Future of Shopping by Rigby, Darrell., Harvard Business Review, Dec2011, Vol. 89 Issue 12 The Wheel of Retailing by Hollander, Stanley C., Journal of Marketing, Jul1960, Vol. 25 Issue 1 The Mall as Bazaar: How Kiosks Influence Consumer Shopping Behavior by Runyan, Rodney; Kim, Jung-Hwan; Baker, Julie., Journal of Marketing Management. Feb2012, Vol. 28 Issue 1/2, p85-102.

Semester	IV	Specialization	Marketing
Course Code	406MKT	Type	Subject - Elective
Course Title	Rural Marketing		

Course Objectives:

1	To understand rural aspects of marketing
2	To learn nuances of rural markets to design effective strategies
3	To enhance deeper understanding of rural consumer behavior

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to Rural Marketing 1.1 Defining rural markets & rural marketing, evolution of rural marketing 1.2 Rural Marketing Environment – PEST analysis 1.3 Rural Economic Structure, Rural Occupation Pattern, Incomes & Consumption, Rural market Size 1.4 Rural Infrastructure	4+1
2	Rural Consumer Behavior & Marketing Research 2.1 Characteristics of Rural Consumers, Role of Opinion Leaders, Diffusion of Innovation in Rural Markets 2.2 Sources & Type of Secondary Data on Rural markets 2.3 Collecting Primary Data in Rural setting	4+1
3	Segmentation, Targeting & Positioning 3.1 Bases of Segmenting Rural Markets 3.2 Target Marketing, Coverage of Markets 3.3 Positioning in Rural Markets	4+1
4	Product & Pricing Strategy in Rural Markets 4.1 Rural Product Categories 4.2 Packaging for Rural Markets 4.3 Branding in Rural Markets, Problem of Fake Brands 4.4 Pricing Strategy – special considerations in rural markets 4.5 Credit in rural markets – need, sources & innovative credit delivery systems	6+1
5	Rural Distribution & Communication 5.1 Challenges of distribution in Rural markets, Rural Retail System – last mile problem, public distribution system, cooperatives 5.2 Emerging Models in Rural Markets: E-Chaupal, Project Shakti 5.3 Challenges for Rural Communication: Massage & Media for Rural Communication	7+1

Learning Resources:		
1	Text Books	The Rural Marketing Book by Pradeep Kashyap & Siddhartha Raut
2	Reference Books	Rural Marketing – Concepts & Practices by Balram Dogra, Karminder Ghuman Rural Marketing by R.V. Badi, N.V. Badi
3	Supplementary Reading Material	A New Approach to Rural Marketing by Kaushik Sircar
4	Websites	http://www.echaupal.com/ http://www.rmai.in/
5	Journals	International Journal of Rural Management by SAGE E-Journals of RMAI Indian Journal of Marketing

University of Pune

Semester	IV	Specialization	Marketing
Course Code	407MKT	Type	Subject - Elective
Course Title	Service Operations Management		

Course Objectives:	
1	To acquaint the students with the service operations strategy aspects.
2	To provide students with the concepts and tools necessary to effectively manage field service operations.
3	To familiarize the students with the concepts of CRM and role of IT in managing service operations.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Service Operations Concept: Nature of Services, Difference between Manufacturing and Service Operations, Service Operations Characteristics, Purpose and objectives of service operation, Functions and processes in service operation, Different Pure Service Organizations and their peculiarities.	4 + 1
2	Service Operation Strategy: Service objectives and goal formulation, Service organization: In house Vs. Outsourcing, Centralized Vs. Decentralized, Creating Customer Connection, Effect of technology on service operations-strategic and tactical problems of managing operations functions in service environment, economies of customer loyalty, alignment between target market segments, manpower implications. Enhancing customer satisfaction, Service Operations as Profit Centre.	5 + 1
3	Designing & Managing Service Operations: Technology and its Impact on Services, Design and Development of Service Delivery Systems, Factors determining design of service systems-Impact of customer contact on design of service system , Work Measurement, Locating Facilities, Designing their Layout. Service capacity, Capacity Planning process design in service systems -basic structure of waiting line model-Principles of queuing theory for capacity analysis issues-Short term capacity planning problems- service quality measurements. Service operation processes for Event management, Financial management, IT service consultancy management.	6 + 1
4	Field Service Management, Service Manpower Planning & Scheduling: Field Service Organization, Field Service Inventory Management, Field Technical Support Service, Integrating Field Service with Information Technology, Field Service Effectiveness Evaluation, Field Service and its impact on Customer satisfaction, Field Service and Customer Relations Management, Uncertainty in Manpower Requirements, Cyclical and Seasonal nature of demand, Service Level Considerations and Cost Considerations in Manning.	5 + 1
5	5.1 Customer Relationship Management: Customer requirement assessment, Customer satisfaction parameters and indices, Manpower recruitment and training, Customer feedback collection and analysis, Customer service evaluation. 5.2 IT Enabled Customer Service: Call Centre Operations and Management, Web-enabled Services, ERP enabled Field and Technical Support Services, Tele marketing and servicing.	5 + 1

Learning Resources:		
1	Text Books	Successful Service Operations Management by Metters, King-Metters, Pulliman and Walton, Thomson India Edition, 2 nd Edition. Customer Service, Robert Lucas, Tata McGraw
2	Reference Books	Service Operations Management - Improving Service delivery by Robert Johnston Graham Clark, Prentice Hall.
3	Supplementary Reading Material	Service Strategy by Fitzsimmons, J.A. and Fitzsimmons, M.J. Chapter 3 in Service Management, McGraw-Hill International Edition, 2006, 37 – 58.
4	Websites	www.msom.journal.informs.org/
5	Journals	Service Operations Management: Return to Roots by Robert Johnston, International Journal of Operation and Production Management Vol.19 No.2, 1999 pp.115-124. Compassionate High Quality Health care at Low Cost: The Arvind Model by Shah, J. and Murty, L.S., IIMB Management Review, 16 (3), 2005, 31 – 43. Will You Survive the Service Revolution? by Karmarkar, U., Harvard Business Review, 82 (6), 2004, 101 – 107.

Semester	IV	Specialization	Marketing
Course Code	408MKT	Type	Subject - Elective
Course Title	International Marketing		

Course Objectives:

1	To make the students understand the concept and techniques of international marketing.
2	To train the students to develop plans and marketing strategies for entering into international markets and managing overseas operations.

Syllabus:

Unit Number	Contents	Number of Sessions
1	International Marketing: Meaning, Nature and Importance; International Marketing Orientation: E.P.R.G. – Approach: An overview of the International Marketing Management Process; International Marketing Environment. Global markets, International market groups- EU, ASEAN, SAFTA, NAFTA, Emerging economies. International marketing research and information system; foreign market entry modes; global marketing operations and strategies; International Market Segmentation and Positioning; Screening and Selection of Markets; International Market Entry Strategies: Exporting, licensing, Contract Manufacturing, Joint Venture M & A, Setting-up of Wholly Owned Subsidiaries Aboard, Strategic Alliances.	9 + 1
2	International Product Strategies: Product Designing: Product Standardization Vs. Adaptation; Managing Product Line, International Trade Product Life Cycle, New Product Development; counterfeiting and IPR issues.	4 + 1
3	Pricing for International Markets: Factors Affecting International Price Determination; Price Quotations and Terms of Sale, pricing strategies; international dumping; financing marketing transactions.	4 + 1
4	Managing International Distribution: The structure of international distribution systems; International Distribution Channels, their Roles and Functions; Selection and Management of Overseas Agents; channel selection decisions; aspects of international supply chain management; international direct marketing; leveraging international distribution for competitive advantage.	4 + 1
5	Managing International Promotion Mix: Planning for Trade Fairs and Exhibitions; Advertising and other Modes of Communication, International promotion mix; push and pull strategies; aspects of international sales management; challenges of international advertising; global media strategy.	4 + 1

Learning Resources:		
1	Text Books	International Marketing by Cateora, Graham & Salwan, Mc Graw Hill, 13 th Edition, 2008. International Marketing by Rakesh Mohan Joshi, Oxford University Press, 2005. International Marketing by Czinkota & Ronkainen, Cengage Learning, 8 th Edition (India), 2008. International Marketing Management by Subhash Jain, CBS Publishers & Distributors, 3 rd Edition, 1997. International Marketing, 4 th Ed., PK Vasudeva, Excel Books International Marketing by Rajgopal, Vikas Publication, New Delhi
2	Reference Books	International Marketing by Terpstra, Vern and Sarathy, Ravi, The Dryden Press, Chicago , 2000. Global Marketing Management by Keegan, Warren J. , Pearson Education , New Delhi, 7 th Edition, 2002. Global Marketing Management by Kotabe Masaaki and Helsen Kristiaan, John Wiley & Sons (Asia) Ltd., 2 nd Edition, 2001. International Marketing: Analysis and Strategy by Onkvisit, Sak and Shaw, John J. Edition, Prentice Hall., 2004. International Marketing: An Indian Perspectives by Varshney, R. L. and Bhattacharya, B. , Sultan Chand, New Delhi, 2001. International Marketing Strategy by Doole Isobel and Robin Lawe, , Thomson Learning
3	Supplementary Reading Material	EXIM Policies World Bank Reports
4	Websites	Websites of the Ministry of Commerce Websites of the Ministry of Finance
5	Journals	Journal of International Marketing AMA's Journal of International Marketing

Semester	IV	Specialization	Marketing
Course Code	409MKT	Type	Subject - Elective
Course Title	Export Documentation and Procedures		

Course Objectives:

1	To familiarize students with policy, procedures and documentation relating to foreign trade operations.
2	To provide a review of the main documents involved in export order processing.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Significance of Procedures and Documentation in International Trade: procedures and documentation as trade barriers; WTO provisions; Aligned Documentation System (ADS); official machinery for trade procedures and documentation; ITC(HS) classification System ;Role of ICC; INCOTERMS; nature of export/trading houses.	5 + 1
2	Export Order Processing: export contract; export price quotations; shipping and custom clearance of export and import cargo; central excise clearance; main export and import documents; Role of forwarding agents; cargo insurance and claim procedure.	5 + 1
3	Methods of Payment in International Trade: documentary collection of export bills; UCPDC guidelines; realization of export proceeds – provisions of RBI's Exchange Control Manual; pre-shipment and post-shipment finance; role of EXIM bank and ECGC in India.	5 + 1
4	Major Export Promotion Schemes in India: EPCGS, duty exemption scheme; DEPB scheme; SIL; facility for deemed exports; Export promoting institution's – role of export promotion councils, commodity boards and ITPO.	5 + 1
5	Regulations for International Trade: Major laws governing India's export import trade- Foreign Trade (Development & Regulation) Act, Pre-shipment Inspection & Quality Control Act, 1963 & Customs Act, 1962; Foreign Exchange Management Act, 2000	5 + 1

Learning Resources:		
1	Text Books	Export Import Procedures & Documentation by Dr. Kushpat S. Jain, HPH, 5 th Revised Edition, Aug. 2007 Export Marketing by B. S. Rathor & J. S. Rathor, HPH, 3 rd Revised & Enlarged Edition, 2006 Export Management by T. A. S. Balagopal, HPH, 18 th Revised Edition, 2006 Export Management by D.C. Kapoor, Vikas Publishing House, 2009 Export- Policy, Procedures and Documentation by M. I. Mahajan, Show white, 24 th Edition, 2010 International Business Management, Text and Cases, Dutta, Excel Books
2	Reference Books	Export Procedures and Documentation by M.D. Jitendra, Rajat Publications, Delhi. Export Markets and Foreign Trade Management by Pervin Wadia, Kanishka Publications, New Delhi.
3	Supplementary Reading Material	Nabhi's Exporters Manual and Documentation. Nabhi's New Import-Export Policy Procedures. Export/Import Procedures and Documentation by Thomas E. Johnson, Donna L. Bade, AMACOM
4	Websites	www.eximbankindia.com
5	Journals	A Study of Export and Import Problems Faced by the Mumbai Based Importers and Exporters by Shinde, Govind P, Advances in Management; Apr2012, Vol. 5 Issue 4, p44-51. A Study on Export Performance of Indian Spices by Muthusamy, A. Global Management Review. 2010, Vol. 5 Issue 1, p25-38. External Sector: Outlook. India Country Monitor. Feb2012, p17-18 Economic Forecast, Country Report. India. Jul2011, Issue 7, p7-11

Semester	IV	Specialization	Marketing
Course Code	410MKT	Type	Subject - Elective
Course Title	Marketing Strategy		

Course Objectives:

1	To introduce a systematic understanding of marketing strategy and decision making in dynamic marketing environment.
2	To understand and apply the STP of marketing (segmentation, targeting, positioning).
3	To understand and appreciate the concept of marketing strategy formulation and implementation.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to Marketing Strategy: Marketing's role in formulating & implementing strategies, market oriented management, Overview of the process of formulation & implementation of marketing strategy, integrating marketing strategy with the firm's other strategies & resources, market opportunity analysis, formulating strategies for specific situations, implementation & control.	3 + 1
2	Understanding Market Opportunities 2.1 Meaning of markets & industry, assessing market & industry attractiveness using Mullins' framework – Market Domain, Industry Domain, Team Domain 2.2 Forecasting Based on Current Demand: Market build up method, chain ratios, market factor index method 2.3 Forecasting Based on Past Demand: Time series analysis, Trend analysis, Leading indicators 2.4 Forecasting through Experimentation: Concept testing, Test marketing 2.5 Forecasting through Intentions & Expert Opinion: Buyers intentions, sales force opinion, trade opinion, expert opinion, Delphi method, Bootstrapping, Cross impact analysis	6 + 1
3	Targeting Attractive Market Segments & Positioning 3.1 Choosing Attractive Market Segments – A five step process 3.2 Different Targeting Strategies: Mass market, niche market, growth market 3.3 Differentiation Based on Product, Image, Channel, Personnel & Services 3.4 Positioning Process: identifying relevant competitors, identifying determinant attributes, collecting information on perceptions of products & brands, determine a product's current position, determine customers' most preferred position, examine the fit between current position & market preferences, writing positioning statement	5 + 1
4	Marketing Strategies for New Market Entries & Growth Markets 4.1 Market Entry Strategies for Pioneers & Followers: Sources of competitive advantage for pioneers & followers 4.2 Components of strategic marketing programmes for Mass market penetration & niche market penetration 4.3 Growth Market Strategies for Market Leaders: Different types of marketing objectives for leaders, market share maintenance strategies 4.4 Growth Market Strategies for Followers: Different types of marketing objectives for followers, market share growth strategies	6 + 1

5	Marketing Strategies for Mature & Declining Markets 5.1 Challenges in mature & declining markets, transition from growth to maturity 5.2 Marketing Strategies for Mature Markets: Maintaining current market share, extending volume growth 5.3 Marketing Strategies for Declining Markets: Marketing objectives & programmes for Harvesting, Maintenance, Survivor & Niche Strategy	5 + 1
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Learning Resources:		
1	Text Books	Marketing Strategy by Walker, Mullins, Boyd & Larreche Marketing Strategy and Competitive Positioning by Graham Hooley, Brigitte Nicoulaud, Nigel F. Piercy, Pearson Education, , 5 th Edition. Strategic Marketing Management-Richard Wilson & Colin Gilligan
2	Reference Books	Strategic Management & Marketing by Narendra Singh, Himalaya Publication Strategic Marketing Text & Cases- S. Shajahan, Viva Books Strategic Marketing Management -Text & Cases, by UC Mathur, Macmillan
3	Supplementary Reading Material	Strategic Marketing by A. Nag, Macmillan Publication Strategic Marketing by Musadiq Sahaf, Prentice-Hall of India Pvt. Ltd. Strategic Marketing for Non-Profit Organization-Alan Anderson & Philip Kotler http://www.iitk.ac.in/infocell/announce/convention/papers/Changing%20Playfield-06-Saurabh%20Kumar%20Saxena.pdf
4	Websites	http://www.mhhe.com/walker http://marketing-strategy-examples.com/
5	Journals	Journal of Strategic Marketing of AMA Marketing & strategy-The Wall Street Journal of Business Strategy- Emerald Journal of Marketing

Semester	IV	Specialization	Marketing
Course Code	411MKT	Type	Subject - Elective
Course Title	Marketing Decision Models		

Course Objectives:

1	To study scientific and data based developments that assist marketing professionals in arriving at cost effective marketing strategies
2	To analyze the important developments in marketing theory to understand and control markets effectively

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to Modeling in Marketing 1.1 Analytical decision making , Science & Marketing, marketing decision support systems, intelligent marketing systems, Data Warehousing & Data Mining applications , Benefits of modeling in marketing, 1.2 Model building process, trends in building & using models, information value chain 1.3 Taxonomy of Market Response Models based on number of marketing instruments, market response modeled, functional forms, competitive effects, nature of data used, level of aggregation, estimation methods, uncertainty.	4 + 1
2	Mathematics & Statistics for Marketing Models 2.1 Relationship between Marketing Variable: Graphs & functions 2.2 Linear Algebra and Systems of Equations in Marketing 2.3 Differential Equations: applications for market dynamics 2.4 Calculus for optimization 2.5 Basic Probability Concepts 2.6 Statistical Distributions for Modeling: Bernoulli, Binomial, Chi-Squared, Exponential, F-Distribution, Normal, Poisson, Student's t distribution	6+ 1
3	3. Applications in Environment Analysis 3.1 Demand decomposition framework for environment analysis & models 3.2 Identifying Competitors through Brand Switching Matrix, 3.3 Models for Forecasting Competitors' Actions, Game Theory 3.4 Stochastic Models of Consumer Behavior: Purchase Incidence Models, Brand Choice Models	5 + 1
4	Applications in Forecasting & Resource Allocation 4.1 Demand Forecasting Models: Extrapolations & curve fitting, Regression techniques, Analogy Methods 4.2 Models for Forecasting Sales for Consumer Durable , Diffusion of Innovation – Bass Model & its revisions, Repeat Purchase Models 4.3 Models for Resources Allocation among Sbus & Products: STRATPORT, & AHP 4.4 Models for resources allocation across geographical territories	5 + 1
5	Models for Marketing Mix Variables 5.1 Modeling for Product Positioning & Design -Preference Choice Model – Expectancy value, preference regression, PERCEPTOR, LINMAP & DEFENDOR models of product design 5.2 Pricing Models 5.3 Models for Promotional Budget Decisions 5.4 Models for Media Scheduling 5.5 Sales Promotion Models: Rao Lilien Model	5 + 1

Learning Resources:		
1	Text Books	Marketing Models by Lilien, Kotler & Moorthy, Prentice-Hall of India
2	Reference Books	Analysis for Strategic Marketing by Rao & Steckel Marketing decision models by Randall L. Schultz, Andris A. Zoltners, North Holland
3	Supplementary Reading Material	The Handbook of Marketing Decision Models by Berend Wierenga, Springer
4	Websites	http://www.12manage.com/i_m.html
5	Journals	Modeling and Forecasting Sales Data by Time Series Analysis by Kapoor, S. G.; Madhok, P.; Wu, S. M., Journal of Marketing Research (JMR). Feb1981, Vol. 18 Issue 1, p94-100. Judgment Based Marketing Decision Models: Problems and Possible Solutions by Chakravarti, Dipankar; Mitchell, Andrew; Staelin, Richard., Journal of Marketing. Fall1981, Vol. 45 Issue 4, p13-23 Econometric Models for Marketing Decisions by Wittink, Dick R., Journal of Marketing Research, Feb2005, Vol. 42 Issue 1, p1-3 Bridging the Academic-Practitioner Divide in Marketing Decision Models by Lilien, Gary L., Journal of Marketing. Jul2011, Vol. 75 Issue 4, p196-210. Using Buyer Behavior Models to Improve Marketing Decisions by Aaker, David A., Journal of Marketing. Jul1970, Vol. 34 Issue 3, p52-57 Endogeneity in Marketing Decision Models by Shugan, Steven M., Marketing Science. Winter2004, Vol. 23 Issue 1, p1-3.

Semester	IV	Specialization	Marketing
Course Code	412MKT	Type	Subject - Elective
Course Title	Marketing of High Technology Products		

Course Objectives:

1	To provide students with the concepts and tools necessary to effectively market a high technology product.
2	To help the students learn the marketing mix aspect of marketing high technology products.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to High Technology: Common Characteristics of High Technology, Continuum of Innovations - Radical/Breakthrough Innovations - Incremental Innovations - Implications of Different Types of Innovations - Contingency Model for High-Tech Marketing - Does Marketing Need to Be Different for High-Technology Products and Innovations? - Framework for Making High-Technology Marketing Decisions.	5 + 1
2	Product Development and Management Issues in High-Tech Markets: Market Orientation, R&D–Marketing Interaction, High-Tech Marketing Research Tools - Concept Testing - Conjoint Analysis - Customer Visit Programs - Empathic Design - Lead Users - Quality Function Deployment - Prototype Testing - Beta Version Testing, Technology Development - The “What to Sell” Decision, Product Architecture: Modularity, Platforms and Derivatives, New Product Development Teams - Developing Services as Part of the High-Technology Product Strategy, Implications for High-Tech Marketing - Protection of Intellectual Property - Understanding Gray Markets - Black Markets, Piracy, and Restricted Exports - Managing Intellectual Property. Categories of Adopters - Crossing the Chasm. The Choice of Customer, Customer Strategies to Avoid Obsolescence, Customer Migration Decisions, Marketers’ Migration Options.	8 + 1
3	Pricing Considerations in High-Tech Markets: The High-Tech Pricing Environment, Customer Oriented Pricing- Steps and Implications. Pricing of After-Sales Service - The Technology Paradox- Solutions to the Technology (Pricing) Paradox - From Free to Fee. The Effect of the Internet on Pricing Decisions - Additional Pricing Considerations - Outright Sale of Know-How versus Licensing Agreements - Licensing Restrictions - Pay-Per-Use versus Subscription Pricing - Price Bundling – Leasing.	4 + 1
4	Distribution Channels in High-Tech Markets: Channel Considerations in High-Tech Markets - Blurring of Distinctions Between Members in the Supply Chain - Need for Indirect Channels to Provide Value for Manufacturers - Evolution of High-Tech Channels.	4 + 1
5	Advertising and Promotion in High-Tech Markets: Tools to Build and Maintain Customer Relationships: The Importance of Branding in High-Tech Markets, Developing a Strong Brand - Ingredient Branding - Branding for Small Business. New-Product Pre-announcements - Advantages and Objectives of Pre-announcements -Disadvantages of Pre-announcements - Tactical Considerations in the Pre-announcement Decision.	4 + 1

Learning Resources:		
1	Text Books	Marketing of High-Technology Products and Innovations by Jakki Mohr, Sanjit Sengupta, Stanley Slater, 2 nd Edition
2	Reference Books	Marketing High Technology by William H. Davidow Product Marketing for Technology Companies by Mark Butje
3	Supplementary Reading Material	Crossing the chasm: Marketing and Selling High Tech Products to Mainstream Customers by Geoffrey Moore Product Strategy for High Technology Companies by Michael E. McGrath. Next Generation Product Development : How to Increase Productivity, Cut Costs, and Reduce Cycle Times by Michael E. McGrath The Innovator's Dilemma by Clayton M. Christensen
4	Websites	http://marketinghightech.net/
5	Journals	Drucker's Insights on Market Orientation and Innovation: Implications for Emerging Areas in High-technology Marketing by Mohr, Jakki J.; Sarin, Shikhar. Journal of the Academy of Marketing Science. Spring2009, Vol. 37 Issue 1, p85-96. High Technology Marketing: Conceptualization and Case Study by Yadav, Naveen; Swami, Sanjeev; Pal, Prosanto. Vikalpa: The Journal for Decision Makers. Apr-Jun2006, Vol. 31 Issue 2, p57-74. The Marketing of Innovations in High-technology Companies: A Network Approach by Borg, Erik A. European Journal of Marketing. 2009, Vol. 43 Issue 3/4, p364-370. Sales Forecasting in High-Technology Markets: A Utility-Based Approach by Decker, Reinhold; Gribba-Yukawa, Kumiko. Journal of Product Innovation Management, Jan2010, Vol. 27 Issue 1 Sales Forecasting of Products with Very Short Life Cycles by Pizzano, Rudolph. Journal of Business Forecasting, Summer2011, Vol. 30 Issue 2 Forecasting Organizational Adoption of High-technology Product Innovations separated by impact: Are traditional macro-level diffusion models appropriate? By McDade, Sean; Oliva, Terence A.; Thomas, Ellen. Industrial Marketing Management, Feb2010, Vol. 39 Issue 2, p298-307. What High-Tech Managers Need to Know About Brands by Ward, Scott; Light, Larry; Goldstine, Jonathan. Harvard Business Review. Jul/Aug1999, Vol. 77 Issue 4, p85-95. Innovation and the Management of Marketing in High Technology Small Firms by Oakley, Ray. Journal of Marketing Management. Oct91, Vol. 7 Issue 4, p343-356. Introduction to the Special Issue: Marketing Of High-Technology Products and Innovations by Mohr, Jakki J.; Shooshtari, Nader H. Journal of Marketing Theory & Practice. Summer2003, Vol. 11 Issue 3, p1-12. Success in High-Technology Markets: Is Marketing Capability Critical? by Dutta, Shantanu; Narasimhan, Om; Rajiv, Surendra. Marketing Science. 1999, Vol. 18 Issue 4, p547-568. Sustaining Competitive Advantage in a High-Technology Environment: A Strategic Marketing Perspective by Rao, P. M. Advances in Competitiveness Research. 2005, Vol. 13 Issue 1, p33-47

Semester	IV	Specialization	Marketing
Course Code	413MKT	Type	Subject - Elective
Course Title	E Marketing		

Course Objectives:	
1	To contextualize marketing concepts in electronic marketing context.
2	To give insights into various aspects of E Marketing from the perspective of creating Customer Value.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>1.1 E Marketing: Concept & scope, E Marketing and E Business interrelationship, Marketing implications of Internet technologies and convergence, Convergence and M commerce.</p> <p>1.2 E Marketing 7 Step Plan: Situation Analysis, E – Marketing Strategic Planning, Objectives, E- Marketing Strategies, Implementation Plan, Budget, Evaluation Plan</p>	5 + 1
2	<p>2.1 E -Marketing Environment: Global markets, Emerging Economies, Technological readiness, Ethical & Legal issues: Privacy and Security Concerns, Electronic Payment System - Different types of payment modes, e-cash, e-check, e-money - E-Security Firewalls</p> <p>2.2 The Virtual Value Chain: Marketplace vs. Market space - Visibility, Mirroring capability, The network economy - "Moore's Law" and "Gilder's Law" , E-Marketplaces and Economic Impacts</p>	5 + 1
3	<p>3.1 Consumer Behavior: Social & cultural context, Individual characteristics and Resources, Motivations for shopping on the net, attributes of online shopping.</p> <p>3.2 Segmenting and Targeting Online Customers: Business – Government and Customer Markets, Important geographic segments for E-Marketing, Demographic segments, Psychographic segments, Behavior segments, Targeting online customers.</p> <p>3.3 Differentiation and Positioning Strategies: Product – Service – Personnel – Channel and Image differentiation. Differentiation Strategies – site atmospherics, making the intangible tangible, building trust, efficient and timely order processing, pricing, CRM, Enhancing the customer experience.</p>	5 + 1
4	<p>4.1 Product Mix of E-Marketing: Product, Creating Customer Value online, Product benefits, Enhanced product development, Taxonomy of Internet products.</p> <p>4.2 Price: Buyers & sellers perspectives, Pricing strategies, Distribution System, Distribution channel metrics.</p> <p>4.3 Integrated Communication: Internet advertising, Website, blogs, community building, on line events, coupons, sampling, contests, games, e mail, permission marketing, viral marketing, messaging, spam, IMC metrics.</p>	5 + 1
5	<p>5.1 Customer Relationship Management: Valued customer experience, CRM Technology & metrics.</p> <p>5.2 The Economics of e-Loyalty: The importance of focusing on the "right" customers Relationship Capital – eCRM - Internet strategies facilitating CRM including personalization, collaborative filtering, data mining, data warehousing and real-time profiling.</p>	5 + 1

Learning Resources:		
1	Text Books	E- Marketing by Judy Strauss, Adel Ansary, Raymond Frost, Prentice Hall Digital Marketing for Dummies by Carter-Brooks-Catalano-Smith
2	Reference Books	Guide to E-Marketing by Prasad Gadkari
3	Supplementary Reading Material	e-Service-New Directions in Theory & Practice by Roland T. Rust and P.K. Kannan
4	Websites	http://www.emarketingstrategiesbook.com/
5	Journals	The Impact of e-service Quality, Customer Satisfaction and Loyalty on e-Marketing: Moderating effect of perceived value by Hsin Hsin Chang; Yao-Hua Wang; Wen-Ying Yang. Total Quality Management & Business Excellence, Apr2009, Vol. 20 Issue 4 Modeling Web Site Design across Cultures: Relationships to Trust, Satisfaction, and E-Loyalty by CYR, Dianne. Journal of Management Information Systems, Spring2008, Vol. 24 Issue 4 Innovativeness and Involvement as Determinants of Website Loyalty: II. Determinants of consumer loyalty in B2C e-commerce by Wang, Hui-Chih; Pallister, John G.; Foxall, Gordon R. Technovation, Dec2006, Vol. 26 Issue 12

Semester	IV	Specialization	Marketing
Course Code	414MKT	Type	Subject - Elective
Course Title	Marketing to Emerging Markets & Bottom of the Pyramid		

Course Objectives:

1	To understand difference between emerging & developed markets
2	To understand opportunities & challenges in Emerging Markets in general & Bottom Of the Pyramid (BOP) segment in particular
2	To provide a framework for marketing to BOP markets

Syllabus:

Unit Number	Contents	Number of Sessions
1	Overview of Emerging Markets: Countries constituting emerging markets. Countries constituting BRICS & Next 11, Growing economic power of emerging markets, Demographic & economic scenario of emerging market countries. Emerging market size for different business sectors	5 + 1
2	Emerging Markets - Perspectives & Practices: 2.1 Characteristics of Emerging Markets: Emerging markets versus developed markets - market heterogeneity, sociopolitical governance, chronic shortage of resources, unbranded competition, and inadequate infrastructure. 2.2 Comparative Advantage of Emerging Markets: Policy based advantage, raw material based advantage, NGO based advantage, Marketing Implications in terms of strategy, policy & practice of marketing, Marketing Mix Implications.	7 + 1
3	Bottom of the Pyramid Markets: 3.1 Difference between Emerging Markets & BOP Markets, Definition, size & composition of BOP markets all over the world, 3.2 Characteristics of BOP markets, need for segmenting BOP markets	5 + 1
4	Marketing Strategies for BOP Markets: 4.1 Four elements of BOP strategy - creating buying power, shaping aspirations, improving access, and tailoring local solutions. 4.2 C K Prahalad's 12 principles, BOP Protocol	5 + 1
5	Criticism of Marketing to BOP & Alternate Perspectives	3 + 1

Learning Resources:

1	Text Books	The Fortune at the Bottom of the Pyramid, Prahalad, C.K., Pearson –Singapore.
2	Reference Books	We are like that only, Bijapurkar, R. (2007), New Delhi: Penguin Portfolio.

3	Supplementary Reading Material	<p>World Business Council for Sustainable Development (WBCSD). (2004), Doing business with the poor – a field guide. (March). [Online] Available: http://www.wbcsd.org/DocRoot/uCxCGeiOhrCEXcsN5slo/sl-field-guide-reprint.pdf</p> <p>United Nations Development Programme (UNDP). (2008), “Creating Value For All: Strategies For Doing Business With Poor”, The Growing Inclusive Markets Initiative, (July). [Online] Available: http://www.undp.org/gimlaunch/download.shtml</p> <p>Preston, K, A. Libow, A. Bruno, C.Meade, and R. Wells. (2007), Opportunities for the Majority Index: Analysis of Corporate Performance in Latin America and the Caribbean, The Inter-American Development Bank, 21st December. [Online] Available:http://www.iadb.org/am/2008/docs/OM_Index_Final_Report_v2.pdf.</p> <p>Hammond, A., W. J. Kramer, R. S. Katz, J. T. Tran, and C. Walker. (2007), The Next 4 Billion: Market size and Business strategy at the Base of the Pyramid, World Resources Institute (WRI) and International Finance Corporation (IFC) [Online] Available: http://www.wri.org/publication/the-next-4-billion</p> <p>Bang V.V. and Joshi S. L. (2008), “Conceptualization of Market Expansion Strategies in Developing Economies”, Academy of Marketing Science Review, 4, [Online] Available: http://www.amsreview.org/articles/bang04-2008.pdf</p> <p>Simanis, E. and S. Hart With J. DeKoszmovszky, P. Donohue, D. Duke, G. Enk, M. Gordon, and T. Thieme. (2008), The Base of the Pyramid Protocol: Toward Next Generation BoP Strategy, Center for Sustainable Global Enterprise, Johnson School of Management, Cornell University, 2nd Ed. [Online] Available: http://www.wdi.umich.edu/files/BoPProtocol2ndEdition2008.pdf.</p> <p>Karamchandani, A., M. Kubzansky, and P. Frandano. (2009), Emerging Markets, Emerging Models: Market-Based Solutions To The Challenges Of Global Poverty, Monitor group, (March).</p> <p>Wilson, D. and R. Purushothaman. (2003) “Dreaming With BRICS: Path to 2050.” Goldman Sachs, Global Economics Paper No.99, 1st October.</p> <p>Prahalad, C.K., and A. Hammond. (2002), “Serving the World’s Poor, Profitably”, Harvard Business Review, 80(September), pp. 48-57.</p> <p>Prahalad, C. K. and S. L. Hart. (2002), “The Fortune at the Bottom of the Pyramid”, Strategy + Business, 26, pp.54-67.</p> <p>Beshouri, C.P. (2006), “A Grassroots Approach to Emerging-Market Consumers.” The McKinsey Quarterly, (March), pp.61-71</p> <p>Karnani, A. (2007), “The Mirage of Marketing to the Bottom of the Pyramid: How the Private Sector Can Help Alleviate Poverty”, California Management Review, 49(4), (Summer), pp.90-111.</p> <p>Sheth, J. N. (2011), “Impact of Emerging Markets on Marketing: Rethinking Existing Perspectives and Practices”, Journal of Marketing, Vol. 75 (July), 166 – 182.</p>
4	Websites	http://www.wri.org/
5	Journals	<p>International Journal of Emerging Markets</p> <p>Harvard Business Review</p> <p>California Management Review</p> <p>Journal of Macro Marketing</p>

Semester	IV	Specialization	Marketing
Course Code	415MKT	Type	Subject - Elective
Course Title	Marketing of Financial Services – II		

Course Objectives:

1	To equip young managers with the knowledge of retail banking, corporate banking and investment banking practices in India.
2	To familiarize the students to the requisite regulatory compliances in Wealth Management industry.
3	To make the student understand the Risk-Return principle and its practical use in marketing of financial services.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>1.1 Financial Framework: An Overview of the Financial Framework, Bank, Categories of Banks, NBFIs, Regulators, Regulations, Key Concepts</p> <p>1.2 Banking Business: Banking Business Overview, Structure of a Bank, Banking Channels.</p> <p>1.3 Retail Banking: Overview, Liability Products, Liability Products-Process & Roles, Asset Products, Asset Process and Roles, Typical Loan Products, Other Services.</p> <p>1.4 Corporate Banking: Overview, Classification of Products - Fund Based & Non Fund Based, Funded Facilities, Non Funded Facilities, Credit Evaluation, SME Banking.</p>	5 + 1
2	<p>2.1 Specialized Divisions & Support Function: Investment Banking - Advisory Services & Funding; Financial Markets and Treasury, Private Banking and Wealth Management, Rural and Agricultural Banking (India specific), Other Functions.</p> <p>2.2 Risk Management in Banks and NDFIs: Risk Management Overview, Typical Causes of Financial Crises, The Risk Management Process, Asset Liability Mismatch, Fraud, Identifying/Measuring Risk, Implementing Risk Measures.</p> <p>2.3 Technology in Banking: An Overview of Technology in Banking, Core Banking Solutions (CBS), Application for Various Channels, Modules for Various Divisions, Cheque Truncation - India & U.S.A</p>	5 + 1
3	<p>3.1 Wealth Management Business: Concept of 'Wealth' and 'Net worth', Concept of HNI, Segmentation of HNIs into various categories - overall profile of each category, Investments needs of HNIs, the 'management' part of 'Wealth Management' for the HNIs.</p> <p>3.2 Wealth Management Industry: Insight into the Wealth Management Industry, Growth potential of Indian HNI segment, Regulatory aspect of Wealth Management at various levels, Money laundering, Terrorism Financing and compliances across the financial services world to block it.</p>	5 + 1

4	<p>4.1 Wealth Management Services: Service providers (both corporate and individuals) in the area of Wealth Management, Range of products and services offered to each segment of HNIs, Services provided under Holistic Wealth Management such as, Private Banking, Preferred Banking etc., Service mandates a wealth manager needs to know and follow. Various segment - mandate mixes.</p> <p>4.2 Wealth Management Process: Client Engagement, Client Profiling and Targeting, Building Relationships etc. Investment Advisory, Product Manager and Credit Operations etc. available in the Front, Middle and Back offices. Various steps in a KYC process, Wealth Management process and their distribution among front end, middle end and back end offices to ensure better services and products.</p>	5 + 1
5	<p>Risk and Return:</p> <p>5.1 Segmenting Clients Based on The Risk- Return Principle: Risk-Return principle, Risk taking behavior of the client during various stages of human life, clients' comfort zone for investment, Risk Tolerance, determining investment objectives.</p> <p>5.2 Asset Classes and Portfolio: Various asset classes, Portfolio classification based upon the proportion of various asset classes. Asset Allocation, Risk profile of the portfolio, Performance indices of the portfolio - Money Weighted Returns, Risk Adjusted Return, Sharpe Ratio, Treynor Ratio, etc., Analyzing performance of portfolio according to the asset class and the markets.</p>	5 + 1

Learning Resources:

1	Text Books	Security Analysis and Portfolio Management by Sudhindra Bhat, Excel Books, 2011 Edition Wealth Management by S. K. Bagchi, Jaico Publishing House, 1 st Edition
2	Reference Books	Marketing Financial Products by IBS Centre for Management Research Marketing Financial Services by Hooman Estelami
3	Supplementary Reading Material	Principles and Practices of Banking by Indian Institute of Banking & Finance, Macmillan Publication, 2nd Edition Marketing of Financial Services by V.A. Avadhani, Himalaya Publishing House
4	Websites	http://www.financeindia.org http://www.rbi.org.in
5	Journals	Building Relationships to Last by Hartmann, Ann W. Journal of Financial Service Professionals. Jan2010, Vol. 64 Issue 1, p42-46. Dimensions of Relationship Marketing in business-to-business financial services by Theron, Edwin; Terblanche, Nic S. International Journal of Market Research. 2010, Vol. 52 Issue 3, p383-402 The Management of Customer Relationships as Assets in the Retail Banking Sector by Persson, Andreas. Journal of Strategic Marketing. Feb2011, Vol. 19 Issue 1, p105-119.

Semester	IV	Specialization	Marketing
Course Code	416MKT	Type	Subject - Elective
Course Title	Cross Cultural Relationship Marketing		

Course Objectives:

1	To help students understand the cultural aspects of relationships.
2	To emphasize the need for cultural adaptation in relationship development and negotiations.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Mapping Players and Process: Identifying players, deciders, Informal influences that make or break a deal. Cross cultural etiquette and behavior-the basics.	5 + 1
2	Buyer and Seller Feedback Loop: Relational embeddedness - dependency and influence of network members over buyer and seller.	5 + 1
3	Communication in Cross Cultural Relationships: Cross communication between network members.	5 + 1
4	Andersen's model (2003) on cross cultural relationship Initiation and development. Cross cultural sales negotiations.	5 + 1
5	Approaches to Negotiations: Top down, Protocol & Department, Deeper cultural characteristics, Consensus, Coalition Building-Negotiation specific expectations to shape process of negotiation.	5 + 1

Learning Resources:

1	Text Books	Relationship Marketing in Cross-cultural contexts by Rugimbana and Nwankwo, Thomson Learning-S. Melbourne The World's Business Cultures and How to Unlock Them by Barry Tomalin and Mike Nicks, Viva Books Pvt. Ltd. Relationship Marketing-the IMP Perspective in Handbook of Relationship Marketing by Jagdish Seth and Atul Parvatiyar 2 nd Edition. Thousand Oaks California, Sage Publications Hofstede G - Cultural Consequences International differences in Work Related Values, Beverly Hills, CA Sage Publications Relationship Marketing -The UK Perspective in Hand book of Relationship Marketing by Jagdish Seth and Atul Parvatiyar 2 nd Edition California, Sage Publications
2	Reference Books	Cross-Cultural Business Behavior: Marketing, Negotiating, Sourcing and Managing across Cultures by Richard Gesteland, 3 rd Edition, Copenhagen Business School Press Cross-Cultural Business Behavior - A guide for Global Management by Richard Gesteland 5 th Edition Marketing by Agreement: A Cross-cultural Approach to business negotiations by McCall, J.B. & M.B. Warrington 2 nd Edition, John Wiley & Sons
3	Supplementary Reading Material	Global Marketing: A Decision Oriented Approach by Svend Hollensen, 5 th Edition. Advances in International Marketing: Establishing Marketing Relationships in Cross Cultural Business, Emerald Insight Books Bargaining Across Borders - How to Negotiate Successfully Anywhere in the world by Foster D.A., MGH, New York
4	Websites	Nil

5	Journals	<p>Cross-Cultural Examination of Relationship Quality, by Barry, James M.; Doney, Patricia M. Journal of Global Marketing, Sep/Oct2011, Vol. 24 Issue 4</p> <p>An investigation of relationship learning in cross-border buyer–supplier relationships: The role of trust, by Liu, C.-L.E. International Business Review, Jun2012, Vol. 21 Issue 3</p> <p>The Complexities of Perceived Risk in Cross-Cultural Services Marketing by Keh, Hean Tat; Sun, Jin. Journal of International Marketing. 2008, Vol. 16 Issue 1, p120-146.</p> <p>The Effects of Adaptation, Commitment and Trust In Cross-Cultural Marketing Relationships by Walton, James R.; Salazar, Ronald J.; Jifu Wang. Journal of Applied Business Research. 2008 3rd Quarter, Vol. 24 Issue 3, p29-38.</p>
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University of Pune

MBA SYLLABUS: SEMESTER IV
FINANCIAL MANAGEMENT - SPECIALIZATION

University of Pune

Semester	IV	Specialization	Finance
Course Code	403 FIN	Type	Specialization - Core
Course Title	International Finance		

Course Objectives:

1	To make students familiar with the operations in foreign exchange markets.
2	To sensitize students with complexities of managing finance of multinational firm.
3	To highlight the importance of the regulatory framework within which international financial transactions can take place, with special reference to India.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Nature and scope of International Finance: Nature and scope of International Finance. The role of Information Technology and financial integration in the process of globalization. International Financial Institutions: International Monetary Fund, World Bank. International credit rating agencies and rating Criteria. International Financing Decision : Issues in Overseas Funding Choices , Economic Circumstances and overall Funding Choices, Funding and Risk Management Aspects. Parity conditions in International Finance: Purchasing Power Parity , Covered Interest Parity , Real Interest Parity , Parity Conditions and Managerial Implications.	7+2
2	Foreign Exchange Markets: Forecasting Exchange Rates : Fundamental Factors Affecting Exchange Rates , Time Series Forecasting Models , Functions of foreign exchange market. Role of participants in foreign exchange market. Foreign Exchange Management Act, 1999, Role of Reserve Bank of India in management of foreign exchange. Exchange rates: Spot rate, Forward rate. Cross rates. Types of exchange rate regimes. Parity relations: purchasing power parity, interest parity. Exchange risk, types of exchange risk, Management of exchange risk. Hedging: internal and external techniques of hedging. Currency Futures and options, Currency Swaps. Speculation in foreign exchange market. Currency arbitrage. Covered interest arbitrage. Convertibility of Indian Rupee.	7+2
3	Global capital Markets: Historical perspective and development, Participants: Issues, investors, intermediaries. Disintermediation, Deregulation, Securitization, Globalization. Various methods of raising resources by borrowers in International markets – domestic foreign currency loans out of foreign currency resources like FCNR(B), EEFC, etc.	7+2
4	International Bond Markets: Development, Types of Bonds, Floating Rate Notes (FRNs), Deep Discount Bonds, Zero Coupon Bonds, Dual Currency Bonds, Equity related Bonds. Procedure for Bonds Issues. Syndicated Loans: Multicurrency Options, Syndication process in practice, Offer document and mandate, Loan Agreements. Rights and duties of Managing and Agents Banks.	7+2
5	International Financial Reporting Standards [I.F.R.S.] and Indian Accounting Standards [Ind. A.S] on foreign transactions. International receivables and cash management.	7+2

Learning Resources:		
1	Text Books	International Financial Management by P.G. Apte 2010 Ed. International Financial Management by Vyuptakesh Sharan International Financial Management by S.P. Srinivasan International Finance by Mauric Levi, Keith P. (2013 edition) Foreign Exchange, International Finance, Risk Management by A.V. Rajwade Currency exposures and Derivatives by A.V. Rajwade
2	Reference Books	Multinational Finance by Adrian Buckley Multinational Financial Management by Alan C. S. International Corporate Finance by Madura International Finance Management by Clark
3	Websites	
4	Newspaper and Magazines	Economic Times, Business Standard, Hindu, Business Line, Financial Express, Money hike, Business India, Business Today, Business World, Capital Market.

Semester	IV	Specialization	Finance
Course Code	404 FIN	Type	Specialization – Core
Course Title	Corporate Finance		

Course Objectives:

1	To acquaint students with advanced treatment of various concepts and tools and techniques used in Financial Management
2	To highlight the importance of various decision making areas of financial management

Syllabus:

Unit Number	Contents	Number of Sessions
1	Goals and governance of the firm: Corporate Investment and Financial Decisions (Investment decisions and financing decisions), Goals of the corporations.	7+2
2	Business Valuation: Concept of Valuation, Different Concept of Value - Book Value, Market Value, Intrinsic Value, Liquidation Value, Replacement Value, Salvage Value and Fair Value. Major approaches to valuation of business – Asset based, Earning based, Market value based, Fair value based. EVA and MVA	7+2
3	Corporate Value based Management System: Shareholders value, Concept and features of value based management, Need for value based management, Need, benefits and approaches of value based management system Corporate Governance Concept of corporate governance, Criteria for good corporate governance, corporate governance in India, Corporate governance (Clause 49 Listing Agreement), Models of corporate governance	7+2
4	Dividend Decisions: Meaning, Types of Dividend, Important Considerations in Dividend Policy, Theories on Dividend Policies (Walter's Approach, Gordon's Approach and Modigliani-Miller's Approach)	7+2
5	Corporate Restructuring: Concept of restructuring, Reasons for restructuring, broad areas of restructuring, Techniques of corporate restructuring – Expansion technique, divestment technique, other techniques, Strategies for restructuring	7+2

Note:

1	Numerical problems will be asked on the following topics only – Business Valuation & Dividend Decisions, The weightage of theory questions will be 60% and numerical problems 40%
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Learning Resources:

1	Text Books	Financial Management by Khan & Jain (TATA Mc Graw Hill) Contemporary Financial Management by Rajesh Kothari (Macmillan Publication) Financial Management by I. M. Pande (Vikas Publication) Corporate Finance, Theory and Practice, Aswath Damodaran (Wiley Publication) Financial Management Principle and Practices by S. Sudarsana Reddy (Himalaya Publication) Principles of Corporate Finance by Richard A Brealey, Stewart C Myers, Franklin Allen, Pitabas Mohanty (Tata McGraw Hill) Financial Management by Mr. Ravi Kishore (Taxman)
2	Supplementary Reading Material	Principles of Corporate Finance by Megginson /Smart Corporate Finance: A Focused Approach by Ehrhardt Strategic Corporate Finance by Weaver
3	Websites	NSE, BSE, Institute of Cost Accountants, Institute of Chartered Accountants
4	Journals	Indian Journal of Finance ICFAI Journals on Finance

Semester	IV	Specialization	Finance
Course Code	405 FIN	Type	Subject – Elective
Course Title	Income Tax Part II		

Course Objectives:

1	To understand the basic concepts of income tax
2	To be able to calculate income from Business and Profession, Capital Gains and other income
3	To be able to calculate Gross Total income and tax liability of an individual as well as a company

Syllabus:

Unit Number	Contents	Number of Sessions
1	Income Tax Act 1961, Definitions - Assesse, Assessment Year, Previous year, person, income, gross total income, Total income and tax liability. Difference between direct tax and indirect tax. Difference between exemption and deduction, capital and revenue, rebate and deduction. Concept of Residential status and incidence of tax incidence, Concept of Agricultural Income.	5 + 1
2	Income From Business And Profession: Basic principles governing Business income, Basic principles governing deductibility of expenses under section 30 to 44DB, Expenses specifically allowed, Expenses specifically disallowed, Deductions for corporations and to professionals, Problems of calculation of income from business and profession.	5 + 1
3	Income From House Property: Chargeability, exemption, Computation of let out property. Income From Capital Gains: Definition of Capital Asset, Transfer, Capital Gain, FMV, Indexation. Types of Capital Gain. Exemptions available for corporations and professionals. Income From Other Sources: Concept of Residual Income, TDS Provisions, Computation.	5 + 1
4	Set Off, Carry Forward, Tax Rate And Liability, Mat, Deferred Tax: Set off and carry forward of losses, Minimum Alternate Tax (MAT), Deferred tax, Calculation of gross total income and tax liability	5 + 1
5	Tax Planning: Tax planning for setting up of a new unit, Tax planning for financial management decisions, Tax planning for managerial decisions, Tax planning for Professionals, Tax planning for Mergers and Acquisitions.	5 + 1

Learning Resources:

1	Text Books	Income Tax and business decisions – William L. Raby
2	Reference Books	Students guide to Income Tax - Dr. Vinod and Kapil Singhania Students guide to Income Tax – Dr. T.N. Manoharan Students guide to Income Tax – Gupta & Ahuja
3	Supplementary Reading Material	Direct Taxes - Law and Practice - Dr. Vinod and Kapil Singhania
4	Websites	www.incometaxindia.gov.in www.tin.gov.in www.aaykarsamparkkendra.gov.in
5	Journals	The Chartered Accountant Taxman Journal AIR Supreme Court hearings

Semester	IV	Specialization	Finance
Course Code	406FIN	Type	Subject – Elective
Course Title	Infrastructure Finance		

Course Objectives:

1	To understand the concept of infrastructure finance.
2	To understand the risks associated with infrastructure finance
3.	To know and analyze the project viability of the infrastructure projects.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to Infrastructure Finance: Infrastructure and Economic Development, Foreign Investment Infrastructure Financing in Developing Countries. Financial Needs of the Infrastructure Sector	5 + 1
2	Understanding Project Financing: Introduction to project finance concept, Analyzing project viability (both financial and non-financial) Sources of Infrastructure Finance, funding cost of infrastructure financing Capital Markets and Infrastructure Financing. Role of governments in financing infrastructure projects; Preparing project financing plan,	5 + 1
3.	Public Private Partnership: Procurement of infrastructure projects through Public Private Partnership route-Types of PPP models, Contractual structure of PPP projects. Value for money evaluation, Lifecycle of PPP projects, PPP procurement process; Exemptions for infrastructure projects, Price setting, Penalties and bonuses	5 + 1
4	Risk management of infrastructure projects: Risk associated with various infrastructure projects like political risk and market (country) risk. Risk identification techniques, Risk allocation frameworks, Risk mitigation strategies.	5 + 1
5	Case studies : Case studies on infrastructure projects like; Environmental and Energy financing, telecom projects	5 + 1

Notes:

1	Problems to be covered on the following topics: <ol style="list-style-type: none"> 1. Finding financial feasibility using capital budgeting technique like Net Present Value, Internal Rate of Return and Discounted Cash Flow Method. 2. Finding financial feasibility considering risks and uncertainties.
2	Case studies can be taken on: - <ol style="list-style-type: none"> 1. Analysis of effectiveness of public private partnerships. 2. Analysis of various types of risks in general and industry in particular <ol style="list-style-type: none"> a. For e.g. general risk analysis will include the political risk b. Industry specific risk analysis may include risk analysis for power sector

Learning Resources:		
1	Text Books	Project management – Prasanna Chandra Principles of Project Finance - Yescombe, E. R. (2002), California: Academic Press.
2	Reference Books	Akintoye,A.,Beck,M.,& Hardcastle, C.(Eds.).(2003).Public-Private Partnerships - Managing risks and opportunities. Oxford: Blackwell Science Limited. Finnerty, J. D. (1996).Project financing - Asset-based financial engineering. New York: John Wiley & Sons, Inc. Merna, T.,& Njiru, C.(2002). Financing infrastructure projects (First ed.). London: Thomas Telford. Nevitt, P.K.,& Fabozzi, F. J.(2000).Project financing (7 ed.). London, UK: Euromoney Books. Raghuram, G., Jain, R.,Sinha, S.,Pangotra,P.,& Morris,S.(2000). Infrastructure Development and Financing: Towards a Public-Private Partnership: MacMillan. Walker, C.,&Smith,A. J.(1995).Privatized infrastructure: the Build Operate Transfer approach. London: Thomas Telford. Kurowski, L.,& Sussman, D.(2011). Investment project design - A guide to financial and economic analysis with constraints. New Jersey: John Wiley & Sons. Pretorius, F., Lejot, P.,McInnis,A., Arner, D.,& Hsu, B. F.-C.(2008).Project finance for construction and infrastructure: Principles and case studies. Oxford: Blackwell Publishing. Weber, B.,& Alfen, H.W.(2010). Infrastructure as an asset class – Investment strategies, project finance and PPP. West Sussex: John Wiley & Sons
3	Supplementary Reading Material	Tinsley, R.(2002).Project Finance in Asia Pacific: Practical Case Studies. London, UK: Euromoney Books. UNIDO.(1996). Guidelines for infrastructure development through Build-Operate Transfer (BOT) projects. Vienna: UNIDO.
4	Websites	www1.ifc.org,
5	Journals	IUP Journal of Infrastructure

Semester	III	Specialization	Finance
Course Code	407FIN	Type	Subject – Elective
Course Title	Behavioral Finance		

Course Objectives:

1	To provide an alternative framework for understanding financial market behavior.
2	To demonstrate how cognitive biases and heuristics influence investment behavior and determine asset prices.
3	To highlight the basic theories and strategies that makes us aware of behavioral finance and investing.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to Behavioral Finance: The Winner's Curse, Bubbles, and IPOs: Introduction, Market Efficiency, The Winner's Curse – Auction, Ingredients of the Winner's Curse, Valuation uncertainty, Many bidders, Historical Bubbles. Experimental Bubbles – Liquidity, Inexperience, Internet Bubble, Uncertain Values, Liquidity, IPOs. Limits of Arbitrage & Systematic Trading: Limits of Arbitrage theory, Relative mispricing, Closed-end Mutual Funds, Equity Carve outs, Systematic Noise. Anomalies	3 + 1
2	Biases, heuristics, and the individual investor: Individual investors -why should we care? Asset prices, Investor welfare, Our own welfare, The investor's problem , Estimate probabilities – Returns, Variance, Co-variances, Match with own preferences, i.e., choose portfolio , Integrate new information. Intuition versus reasoning, Probability not intuitive, Positive self-illusions psychology, Overconfidence, Calibration, Entrepreneurs' perceived chances for success – Optimism, Self-attribution bias, Illusion of control, Information based overconfidence, Advantages of positive self-illusions, Disadvantages of positive self-illusions, Lowering overconfidence. Positive self-illusions investors, Volume Volatility Price and Profit, Learning - Frequent feedback, Quick feedback, Clear feedback, Weather forecasters, Physicians. Learning to be overconfident - Do investors trade too much? Trading is hazardous to your wealth, Representativeness, Availability, Anchoring & Adjustment – psychology, Hot hand, Ignoring base rates, Regression to the mean, Hindsight bias, Confirmation bias, Representativeness, Availability, Anchoring & Adjustment – investors, Mutual funds, The Inside View.	7 + 1
3	Preferences: Framing, Prospect Theory, and violations of Expected Utility, Expected Utility – Cancellation, Transitivity, Dominance, Invariance, Violations of Expected Utility, Prospect Theory, Risk aversion—Rabin and Thaler, “Coherent Arbitrariness.” Mental accounting, Prospect Theory, & Attention: Mental accounting, Prospect Theory & mental accounting—investors, Disposition effect - Are investors reluctant to realize their losses? IPOs revisited—money on the table, Attention - All that Glitters, Anomalies revisited - Accounting based anomalies, Calendar anomalies, Celestial and meteorological anomalies, Attention based anomalies, Value vs. growth, Size, Equity premium, Myopia, Momentum, Behavioral theories of momentum - Representativeness, Overconfidence and self-attribution bias, Disposition effect. Savings Behavior - Own company stock, Naive diversification, Default savings rates and allocations, Should Social Security be privatized?	5 + 1

4	Behavioral Corporate Finance: Limits of arbitrage, No need for aggregation, Overconfidence, Executive compensation, Capital budgeting, Fairness, Ethics, Advertising to investors - Where do new investors learn what to do? Illusion of control, Information based overconfidence, Affect, Loss aversion.	5 + 1
5	Case Studies on above topics	5 + 1

Learning Resources:

1	Text Books	Behavioral Finance: Psychology, Decision-Making, and Markets", by Ackert and Deaves. Understanding Behavioral Finance by Ackert The Psychology of Investing by John R. Nofsinger, Pearson Prentice Hall, (4th Edition) What Investors Really Want - Learn the lessons of behavioral Finance, Meir Statman, McGraw-Hill
2	Reference Books	Handbook of Behavioral Finance – Brian R. Bruce Title Behavioral finance - Wiley Finance - Joachim Goldberg, Rüdiger von Nitzsch
3	Supplementary Reading Material	Beyond Greed and Fear: Understanding Behavioral Finance and the Psychology of Investing – HershShefrin
4	Websites	www.nseindia.com www.bseindia.com

5	Journals	<p>Caginalp, Gunduz, David Porter, and, Vernon Smith, "Financial Bubbles: Excess Cash, Momentum, and Incomplete Information," Journal of Psychology and Financial Markets, 2001, Vol. 2, No. 2, pp. 80-99.</p> <p>Fama, Eugene F., "Market Efficiency, long-term returns, and behavioral finance," Journal of Financial Economics, 49, 1998, 283-306.</p> <p>Garber, Peter M., "Famous First Bubbles," Journal of Economic Perspectives, Spring 1990, pp. 35-54.</p> <p>Thaler, Richard H., "Anomalies: The Winner's Curse," Journal of Economic Perspectives, Winter 1988, 191-202.</p> <p>Shleifer, Andrei and Lawrence H. Summers, "The Noise Trader Approach to Finance," Journal of Economic Perspectives, Spring 1990, pp. 19-33.</p> <p>Jones, Charles M., and Owen A. Lamont, "Short-sale constraints and stock returns," Journal of Financial Economics, 66, 2002, 207-239.</p> <p>Taylor, Shelley E. and Jonathan D. Brown, "Illusion and Well-Being: A Social Psychological Perspective on Mental Health," Psychological Bulletin, 1988, vol 103, no. 2, pp. 193-210.</p> <p>Odean, Terrance, "Volume, Volatility, Price, and Profit When All Traders Are Above Average," Journal of Finance, 53, 6, 1998, 1887-1934.</p> <p>Barber, Brad M., and Terrance Odean, "The Internet and the Investor," Journal of Economic Perspectives, Winter, 2001, 41-54.</p> <p>Tversky, Amos and Daniel Kahneman, "Judgment under uncertainty: heuristics and biases," Science, 1974, 185, 1124-1131.</p> <p>Tversky, Amos and Daniel Kahneman, "Rational Choice and the Framing of Decisions," Journal of Business, 1986, vol. 59, no. 4, pt. 2.</p> <p>Thaler, Richard H., "Mental Accounting Matters," Journal of Behavioral Decision Making, 1999, 21, pp. 183-206.</p> <p>Rabin, Matthew and Richard H. Thaler, "Anomalies: Risk Aversion," Journal of Economic Perspectives, Winter, 2001, 219-232.</p> <p>Kahneman, Daniel and Dan Lovallo, "Timid Choices and Bold Forecasts: A Cognitive Perspective on Risk Taking," Management Science, vol. 39, no. 1, pp. 17-31.</p> <p>Messik, David M. and Max H. Bazerman, "Ethical Leadership and the Psychology of Decision Making," Sloan Management Review, Winter 1996, pp. 9-22.</p>
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Semester	III	Specialization	Finance
Course Code	408FIN	Type	Subject – Elective
Course Title	Financial Modeling using Excel		

Course Objectives:

1	To develop the ability to utilize the core functionality of excel in decision framework to solve managerial problems in the finance functions of the business.
2	To master modeling techniques to eliminate the substantial risk of poor spreadsheet coding.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Modeling Practice And Principles: Making decisions based on numbers, Features of MS Excel to its maximum advantage to calculate and communicate decision information. Understanding The Make-Up Of Analytical Decision Calculus, How problems in business are framed, Construction of integrated financial statement, Developing the decision matrix, Case Studies. Excel 2010 Logic And Tool Sets - How Excel is structured – the Toolsets, The Excel Ribbon Interface, Understanding Excel Objects, The limitations of Excel, Working With Functions - Utilizing the existing Excel formulae functions: Financial, Logical, Date and Time, Lookup and Reference, Statistical, Strategy for developing nested formulae functions, Good Excel coding techniques. Consolidation: Linking principles in excel, Consolidation function, Outlining function, Linking to external data sources.	5 + 1
2	Exploring The Visualization Power Of Excel: Specific functions of Excel, Advanced Chars, Understanding the Excel for Charts, What are the appropriate graphs to assist in analytics? Examining the different types of graphs, Advanced graphing formatting techniques, Creating interactive graphs. Advanced Formatting Techniques - Formatting strategies in Excel – how we develop rich reports, Examining the Conditional Formatting functionality, Inserting Objects into Excel. Developing A Dashboard - What is a dashboard and good design principles, Utilizing Indirect, Lookup and Match functions, Using SLICERS, Case Study – Producing world class Monthly Management Accounts.	5 + 1
3	Data And Statistical Analysis Of Large Tables: Data Management In Excel, Examining the concept of data and how excel deals with them, Creating data input tables , Data cleaning functions, Creating tables, Filtering functions, Special functions using tables, Case study – analyzing a large marketing customer. Analyzing Data with Excel Pivot - Understanding what is OLAP, Importing from external Databases (SQL and Access), Performing calculations in PIVOT TABLE, Creating graphs in PIVOT CHART, Case Study – analyzing a large Sales Database. Data Analysis: Data Summation and Graphing using the Data Analysis Pack, Introduction to Inference Capabilities, Working with advanced statistical functions, Forecasting, Multiple Regression, Other Advanced Functions - Linear Programming, Data mining Toolset from SQL 2008.	5 + 1

4	Developing The Interactive Model: The Modeling Methodology, Designing the Model Structure , Developing the Input Screen and assumption interface, Incorporating exogenous and macroeconomic dimensions, Structuring the Calculation Sheets, Developing The Calculation Modules - Investment size and timing, Capacity Modeling, Revenue Modeling with major emphasis on pricing elasticity and demand drivers, Cost modeling and the impact of inflation. Funding Considerations - Structuring the Funding Model, Determining the Weighted Average Cost of Capital, Developing the Debt Funding Repayment Schedules, Integrating the modules, Developing the Working Capital requirements - Linking the CAPEX, Income Statement and Working Capital to Cash Flow Statement, Integrating the Cash flow Statement to the Balance Sheet, Developing the Free Cash Flow Model for NPV , Summarizing the results. Auditing The Model - Spreadsheet Audit, Stress testing the model to determine logic, Documentation.	5 + 1
5	Modeling Analytics: Developing The Output Screens And Report, Developing an Investment Dashboard, Preparing the report outputs, Report presentation dynamics, Examining The Output, "What If" functionality of Excel to analyze the sensitivity of the numbers, Preparing the DATA TABLES to determine the impact of key variables, Utilizing the SCENARIO MANAGER to determine profitability, Utilizing the GOAL SEEK function, Preparing The Investment Report To Management- Preparation of Investment Report that complies with disclosure requirement, Dealing with risk and the limitations of the assessment, Assessing the Cash Flow of a "no-invest" option, Writing up the investment report utilizing the rich features of Word 2010. Presenting the Report - Using PowerPoint 2010, Web enable your report, Good presentation technique.	5 + 1

Note:

1	Depending upon the data available regarding research projects available with the institute, small assignments can be created to develop the models using Excel. Selecting different sectors and using their cost structure develop models for financial analysis and decision making. Risk measurement and portfolio management tools also can be incorporated in the same.
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Learning Resources:

1	Text Books	Business Data Analysis using Excel – David Whigham – Oxford University Press Mastering Financial Modeling in Microsoft Excel – Alastair L. Day Practical Financial Modeling – Jonathoan Swan
2	Reference Books	Building Financial Models with Microsoft Excel: A Guide for Business Professionals , K. Scott Proctor, 2nd Edition, John Wiley & Sons Financial Modeling Using Excel and VBA by ChandanSengupts, John Wiley & Sons Advanced Modeling in Finance using Excel and VBA By Mary Jackson, Mike Staunton, John Wiley & Sons Next Generation Excel: Modeling in Excel for Analysts and MBAs By Isaac Gottlieb, John Wiley & Sons
3	Supplementary Reading Material	http://www.pdfbookes.com/financial-modeling-using-excel-and-vba-wiley-finance-PDF-553819/
4	Websites	www.proschoolonline.com www.wallstreetprep.com www.financialmodelling.net

5	Journals	International Journal of Theoretical and Applied Finance (IJTAF) International Journal of Financial Markets & Derivatives (IJFMD) Journal of Economic & Financial Modeling
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University of Pune

Semester	IV	Specialization	Finance
Course Code	409 FIN	Type	Subject – Elective
Course Title	Indirect Taxation		

Course Objectives:

1	To make students familiar with various indirect tax laws in India
2	To create awareness about the tax planning in the field of indirect taxes

Syllabus:

Unit Number	Contents	Number of Sessions
1	Canons of Taxation - Indirect Taxes, Features of Indirect Tax. Constitutional validity. Indirect Tax Laws, administration and relevant procedures	3 + 1
2	Central Excise: The Central Excise Law, Goods, Excisable goods, Manufacture and manufacturer, Classification, Valuation, Related Person, Captive Consumption, CAS 4, CENVAT. Basic procedures, Export, SSI, Job Work. Assessment, Demands, Refund, Exemptions; Powers of Officers. Adjudication, Appeals, Settlement Commission, Penalties. Central Excise Audit and Special Audit under 14A and 14AA of Central Excise Act, Impact of tax on GATT 94, WTO, Anti- Dumping processing; Tariff Commission and other Tariff authorities.	7 + 1
3	Customs laws: Basic concepts of customs law; Territorial waters, high seas; Types of custom duties., Anti-Dumping Duty, Safeguard Duty; Valuation; Customs Procedures, Import and Export Procedures, Baggage, Exemptions, Warehousing, Demurrage; Project Imports and Re-Imports; Penalties and Offences. Export Promotion Schemes. EOU, Duty Drawback, Special Economic Zones.	5 + 1
4	Service Tax: Introduction, Nature of Service Tax, Service Provider and Service Receiver, Registration procedure, Records to be maintained, Classification of taxable services, Valuation of taxable services, Exemptions and Abatements, Payment of service tax Return, CENVAT Credit Rules, Export and import of services, Other Procedural aspects of Service Tax, Taxable Services.	5 + 1
5	Central Sales Tax Act & VAT Act: CST: Introduction, definition of sale under CST; Stock transfer, branch transfer under CST; Interstate sale, Various forms for filing of sales tax returns under CST; Sales outside territorial waters under CST; Procedures. Practical examples on CST VAT: Salient feature of State VAT Acts, Definitions, Treatment of stock & branch transfer under State VAT Acts, Filing & Return under State VAT Acts, Accounting & Auditing VAT.	5 + 1

Learning Resources:		
1	Text Books	Systematic Approach to Indirect Taxes - Kumar, Sanjeev. Text Book of Indirect Tax – Sinha P.K.
2	Reference Books	Indirect Taxes: V.S.Datey- Taxman Publication M VAT- Subramanian- Snow-white Publications
3	Supplementary Reading Material	Various Bare Acts
4	Websites	Websites of Customs Department Websites of Excise Department Websites of Sales Tax Department
5	Journals	The Chartered Accountant The Management Accountant

Semester	IV	Specialization	Finance
Course Code	410FIN	Type	Subject – Elective
Course Title	Financial Risk Management		

Course Objectives:

1	To understand what is risk and the basic concepts of modeling its application for measuring and managing financial risks
2	To measure volatility in market prices, highlight Risk Management issues in investments.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to Risks: Financial Risk: An Overview, Evolution, and the Environment, Risks definition (market, credit, liquidity, operational), more specifically on the identification of different forms of risk (currency, interest rate, equity, commodity). Market Data Analysis, Probability and distributions of asset prices, measuring return and risk, Modeling Risk Factors, Using implied volatility in Value-at-Risk measures.	5 + 1
2	Risk and volatility Measurement : Risk and volatility Measurement, the issue of time aggregation, different measures of volatility such as EWMA, ARCH & GARCH processes, volatility clusters and the issue of time varying volatility . Measuring risk using Value-at-Risk, concept and computation of VAR using variance-covariance approach, Calculating portfolio risk of more than one Assets. Historical simulation & multifactor Var, marginal and relative var, expected shortfalls, treasury applications Stress testing and back-testing, Forecasting correlation & Volatility during market crash, Extreme Value Theory - Basic Principles, Extreme Value Theory methods in measuring financial risk, Monte Carlo simulation, issues in generating price process (Brownian Motion, Ito Process), Cholesky decomposition in computing multi-asset VaR. Risk & Forecasting issues in asset prices (exchange rates & interest rates), modeling interest rates such as Cox-Ingersoll-Ross Models, ARMA processes in generating currency forecasts and using in decision making.	5 + 1
3	Currency risk analysis: Currency risk analysis in global investing, interest rate parity (covered and uncovered), yen-carry trade syndrome, risk environment in Indian Forex markets, forwards and non- deliverable forwards, cross-currency risk analysis. Value at risk for fixed income portfolio, cash flows mapping in fixed income portfolios, relation of Var measures with duration, comparing with yield v/s price volatility, etc.	5 + 1
4	Credit Risk Basics: Probability of Default, Credit ratings & Transition Matrix analysis, Contingent claim approach and the KMV Model, Credit Risk Management and Credit VaR. Indian environment in VaR applications (NSE, BSE, NCDEX, CCIL), RBI guidelines for credit & market risk management, VaR based margining.	5 + 1
5	Integrated Risk Management framework: Operational, An integrated approach to risk management considering issues such as operational, supervisory, legal, Accounting, Issue of Governance ratings and risk in institutions, the role of risk management offices (front, middle and back offices), Risk reporting, Risk Budgeting and Setting Risk Limits, limits using notional, stop loss and Var based limits, establishing trading limits.	5 + 1

Note:	
1	In addition to suggested case discussion, live cases can be built and studied using Excel, live price movements on stock exchanges along with statistical tools. Valuation and risk modeling with the link to Financial statement analysis can be used to create live assignments.

Learning Resources:	
1	<p>Text Books</p> <p>Corporate Financial and Risk Management - Nersesian, Roy L. - Jaico Publishing House</p> <p>Financial Risk Management: A Practitioner's Guide to Managing Market and Credit Risk - Steve L. Allen</p> <p>Modern Corporate Risk Management: A Blueprint for Positive Change and Effectiveness by Koller</p>
2	<p>Reference Books</p> <p>Investment Science. Luenberger, Oxford University Press, 1998</p> <p>Options, Futures and other Derivatives, John Hull, 7th Edition, Prentice Hall, 2008</p> <p>An Introduction to Market Risk Measurement by Dowd, Kevin, John Wiley & Sons.</p> <p>Risk Management and Financial Institutions by Hull, John C., Pearson, Prentice Hall, 2007</p> <p>Measuring Market Risk by Dowd, Kevin, John Wiley & Sons, 2005.</p> <p>Value at Risk by Jorion, Philippe, McGraw Hill.</p> <p>Beyond Value at Risk, by Dowd, Kevin, John Wiley & Sons</p> <p>Mastering Value at Risk ,Butler, Comac, Financial Times Prentice Hall</p> <p>Risk Takers, Marthinsen, John, Pearson Prentice Hall, 20096.</p>
3	<p>Supplementary Reading Material</p> <p>Cases for Discussions (Asia Currency Crisis , Amaranth Hedge funds, Allied Irish Bank, Bank of Credit and Commerce International (BCCI), ERM Crisis, Orange County, Barings, Daiwa, Kidder Peabody, Metallgesellschaft, Northern Rock, Procter and Gamble (P&G), US Savings & Loan Crisis, etc.)</p> <p>A survey of major financial institutions by E & Y (2012): Progress in Financial Services Risk Management.</p>
4	<p>Websites</p> <p>http://www.scirp.org/journal/jfrm</p> <p>http://www.ey.com/Publication/vwLUAssets/Banking_and_financial_services_risk_management_survey_2012/\$FILE/Progress_in_financial_services_risk_management.pdf</p>
5	<p>Journals</p> <p>The IUP Journal of Financial Risk Management</p> <p>http://www.iupindia.in/FinancialRisk_Management.asp</p> <p>The ICFAI journal of financial risk management</p> <p>Journal of Financial Risk Management</p>

Semester	III	Specialization	Finance
Course Code	411FIN	Type	Subject – Elective
Course Title	Online Trading of Financial Assets		

Course Objectives:

1	To understand how to do the trading of financial assets online.
2	To know practically the prerequisites of trading.
3	To analyze the securities using the MIS reports available online.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Overview of Capital Markets: Overview of Indian Capital Market and Global Capital Market, Stock exchanges in India: Vision, Mission and Functions, Products & Participants, Key indicators of securities market, market segments & their products, options available with investors for trading online.	3 + 1
2	Products in Capital Markets: Capital Market(Equity, Indices, MFs, ETFs, IPOs, Offer for sale, IPP, SLBs) Derivatives (Equity derivatives, Currency Derivative, Interest rate derivatives, Global indices) Debt (Retail debt market, Wholesale debt market, Corporate bonds) Investors' rights and obligations	6 + 1
3	Trading Online: Pre requirements and documentation, Online trading and mobile applications, Verifying trades, contract notes, bills, demands Verifying margin requirements and balance in trading account	6 + 1
4	Analysis using online information: Using online reports and charts for analysis and decision making (daily, monthly)...creating data base for your portfolio, Understanding Trading, Clearing & settlement and Risk Management related to each product in Capital Market	6 + 1
5	Profit Management: Managing online 3 portfolios and related customized market watch (e.g. My NSE) along with related detailed MIS in excel	4 + 1

Learning Resources:

1	Text Books	Mastering the Trade: Proven Techniques for Profiting from Intraday and Swing Trading Setups (McGraw-Hill Trader's Edge Series) by John F. Carter. A Beginner's Guide to Day Trading Online (2nd edition) by Toni Turner.
2	Reference Books	Day Trade Online – Christopher A. Farrell
3	Supplementary Reading Material	Indian Financial System – M.Y.Khan –Tata Mc Graw Hill Capital Markets magazine Equity research, Investment and Finance Magazine Stocks and commodities magazine
4	Websites	www.nseindia.com www.bseindia.com www.moneycontrol.com www.bloomberg.com www.reuters.com
5	Journals	Financial Analysts Journal International Journal of bonds and currency Derivatives Journal of Applied Finance International Review of financial analysis Journal of Derivatives Journal of Derivatives & Hedge Funds Journal of Financial Markets Journal of Investing

Semester	IV	Specialization	Finance
Course Code	412FIN	Type	Subject – Elective
Course Title	Banking Operations – II		

Course Objectives:

1	To get acquainted with the changed role of Banking post 1991 Reforms.
2	To know the lending and borrowing rates along with the various mandatory reserves.
3	To know the procedural compliances by bank's functionality.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Role of Banking in India: Banking in India pre and post-independence, Banking in post 1991 Reforms, Role of foreign players in Indian Banking, change in the role of Nationalized banks	5 + 1
2	Legal Aspects of Banking in India: Commercial Laws with reference to Indian Banks, Security Norms, Core Banking Environment, Standard Books maintained for different accounts	4 + 1
3	Interest Rates by and for banks: Differentiation in lending and borrowing rates, Interest as an important source of revenue of banks, various interest rates in funding schemes of banks, SLR, CRR, REPO and REVERSE REPO Rate	4 + 1
4	Funding and Procedural Compliances: Working Capital Gap, BASEL Norms for Working Capital Finance, Significance of documentation and procedural compliances in funding by the banks, Modes of Payments including Letters of Credit, Deferred Payments, Valuation of Securities, Internal Checks and Controls in Banks	6 + 1
5	International Banking: Currency Swaps, Multinational Banking, International Risk Management, Asset Liability Management, Exposure Management, Offshore Banking, International Financial Institutions, Operations of Indian Banks abroad	6 + 1

Learning Resources:

1	Text Books	Banking - E.Dharmaraj – Scitech Publications
2	Reference Books	Accounting and Finance for Bankers – Indian Institute of Banking & Finance – Mac Milan Publications,
3	Supplementary Reading Material	
4	Websites	www.iba.org.in www.rbi.org.in www.iib.org finmin.nic.in
5	Journals	The Indian Banker

Semester	III	Specialization	Finance
Course Code	413FIN	Type	Subject – Elective
Course Title	Wealth and Portfolio Management		

Course Objectives:

1	To understand the concept of Wealth Management.
2	To understand the concept of Portfolio Management.
3	To understand various tools and methods of evaluating the portfolio.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: objectives of investment decisions, types of investors, goal of investors, investment opportunities (debt instruments, equity instruments, derivatives and others), Investment and risk management : equity, debt, alternate assets, Investment products and services.	5 + 1
2	Wealth Management: Concept, measuring investment returns in wealth management, investment vehicles of wealth management, managing investment risk in wealth management, Indian Tax Laws & Taxation of investment products, wealth management planning / financial planning, Financial planning process, systematic approach to investing.	4 + 1
3	Portfolio Management - Active v/s Passive Portfolio Management, Costs of Management – Entry / Exit load and fees, Net Asset Value, Classification of funds, Phases of portfolio management, evolution of portfolio management, role of portfolio management, Portfolio building process – benchmark portfolios, market index portfolios, approaches for building portfolios - building bond portfolios, equity portfolios, mixed portfolio, Rebalancing Portfolios, Cost benefit analysis of Portfolio Rebalancing, Portfolio Management Plans, Portfolio Management plans under different market scenarios.	6 + 1
4	Portfolio analysis & Selection: Expected return of portfolio, risk of a portfolio, Diversification - a tool for reducing risk, portfolio having more than two securities Portfolio Revision: Need for revision, Meaning of portfolio revision Constraints, strategies, plans for revision Portfolio Evaluation: Need, meaning, Differential return, Decomposition of performance, Sharpe's Portfolio Performance Measure, Treynor's Portfolio Performance Measure, Jensen's Portfolio Performance Measure. Forecasting Portfolio Performance & Hedging Portfolio Risk	4 + 1
5	Portfolio Theory - Efficient Market Theory, Capital Asset Pricing Model (CAPM), Random Walk theory, Markowitz Model, Sharpe's single index portfolio selection method, Arbitrage Pricing Theory	6 + 1

Learning Resources:		
1	Text Books	Portfolio Management : S Kevin, Security Analysis and Portfolio Management - M. Rangannatham& R. Madhumathi Value Innovation Portfolio Management: Achieving Double-Digit Growth through Customer Value by Mello Analysis of Investments & Management of Portfolios by Reilly/Brown
2	Reference Books	Investments – An Introduction, Herbert B Mayo, Thomson South-Western Investment Management, V A Avadhani, Himalaya Publishing House Security Analysis and Portfolio Management, Punithavathy Pandian, Vikas Damodaran on Valuations, Ashwath Damodaran, Wiley Stock Exchanges, Investments and Derivatives, V Raghunathan, Prabina Rajib, Tata McGraw Hill An Introduction to Investments by Mayo Basics of Personal Financial Planning by NIA
3	Supplementary Reading Material	Financial Statement Analysis – Gokul Sinha Security Analysis and Portfolio Management – Fisher, Jordan Investments: Principles and concepts, Jones, Wiley Analysis of Investments & management of Portfolio, Reilly & Brown, Cengage Learning Investment Management (Security Analysis and Portfolio management) – V K Bhalla Capital Markets and Dalal Street Magazine
4	Websites	www.nseindia.com www.bseindia.com www.moneycontrol.com www.valueresearchonline.com/ , http://topics.bloomberg.com/india/
5	Journals	Journal of Finance Global Finance Journal Journal of Property Valuation and Investment Review of Financial Economics The Journal of Private Equity Journal of Property Valuation and Investment Journal of Financial Economics etc.

Semester	III	Specialization	Finance
Course Code	414FIN	Type	Subject – Elective
Course Title	Fixed Income Securities		

Course Objectives:

1	To analyze the fixed income securities markets and its implications for investments.
2	To explain the market characteristics, instruments, selling techniques, pricing and valuation issues with money market instruments.
3	To explain the specific features of the Indian Fixed Income Securities Markets.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: Fixed Income Markets, Institutional Arrangements, Market Participants and Instruments, Investors Perspectives, & Market Conventions, features of government securities market, Understanding market linkages, bonds and money market instruments, MIFOR Curve. Risk Identification in Bonds: Duration, Convexity, and Immunization. Risk measurement in fixed income securities using value at risk, STRIPS, Theories of Term Structure of Interest Rates, Term structure and the economy, Treasury Securities Auction, Market Implications, When-Issued markets, Government securities auction & Bidding, Uniform v/s discriminatory auction, bidding behavior, winners curse analysis.	5 + 1
2	Bond Valuation: Time Value of Money, Price and Yield Conventions, Bond Valuation under flat term structure, Yield & return & horizon return, Valuation of other Bonds, Floating Rate securities, index bonds, illiquid bonds, Corporate Debt Valuation, valuation of convertibles, Bond Indexing, methodology for constructing a bond index, index return comparison. Yield Curve Analysis: Par Value, Zero, Spot Curve, Bootstrapping, spot & forward rates, (Nelson-Seigel model of the Indian NSE)	5 + 1
3	Auction Game: Portfolio construction, setting portfolio objectives, interpreting portfolio parameters, Passive v/s Active portfolio management strategies, bullet v/s barbell, other strategies. Global Bond Markets, foreign currency bonds, dual currency bonds, analysis of global bond spread behavior in recent times.	5 + 1
4	Fixed Income Derivative Markets: FRAs, Interest rate Swaps, swap pricing and swap curve, Interest rate futures, Interest Rate Options, Caps & Floors pricing.	5 + 1
5	Advanced Term Structure Modeling (Cox-Ingersoll-Ross, Vasicek), Black-Derman-Toy (BDT) model representing binomial tree model of valuation of bonds with embedded options, Markets for Asset Backed Securities, Prime and Subprime Mortgage-Backed Securities. Fixed Income Investing: An Analysis & Strategies, Summary of learning experience.	5 + 1

Learning Resources:		
1	Text Books	Fixed-Income Securities: Valuation, Risk Management and Portfolio Strategies (The Wiley Finance Series) – Lionel Martelline, Philippe Priaulet, Stephane Priaulet.
2	Reference Books	Fixed Income Securities: Dun & Bradstreet The Handbook of Fixed Income Securities - Frank J. Fabozzi, Steven V. Mann
3	Supplementary Reading Material	Fixed Income Markets and Their Derivatives - Suresh Sundaresan
4	Websites	www.nseindia.com www.bseindia.com www.fimmda.org
5	Journals	Journal of Portfolio Management Journal of Private Equity Journal of Investment Management

Semester	III	Specialization	Finance
Course Code	415FIN	Type	Subject – Elective
Course Title	Technical Analysis		

Course Objectives:

1	To understand the basics of technical analysis and its applications.
2	To understand how various types of charts are used to give recommendation on stocks.
3	To understand the psychology behind a pattern and its formations.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Technical Analysis :Technical analysis – definition and concept, Price discounts everything , Price movements are not totally random , Technical Analysis: the basic assumptions, Strengths and weakness of technical analysis, Importance of technical analysis, Constructing and Interpreting Charts and the significance of volume while using patterns, chart patterns (bar chart, line chart, point & figure chart & candle stick chart), Understanding the psychology behind a pattern and its formation, Evolving a Trading strategy based on patterns, Candlestick analysis.	5 + 1
2	What to look for on charts – Trends, Support & Resistance levels, Moving Average, P Gaps, Volume, Comparative Relative Strength, Head and shoulders top reversal, Inverted head and shoulders, Head and shoulders bottom, Double top and double bottom, Rounded top and bottom, Gap theory, Common gaps, Breakaway gaps, Runaway/continuation gap, Exhaustion gap, Island cluster.	5+1
3	Indicators and Oscillators : Indicators - Covering the set of classical as well as unconventional indicators and focus on their application towards investments / positions / day trading, Moving Averages : An in-depth study of Moving Averages and the role it plays in determining a trade, multiple uses of Moving Averages for different time horizons of trades, Oscillators, Relative strength index , What is momentum? Applications of RSI , Overbought and oversold , Divergence , Stochastic , William %R, Real life problems in use of RSI, Advanced concepts - Moving average convergence/divergence(MACD) , calculations for MACD , MACD benefits , uses , Money Flow Index, Bollinger Bands, Using multiple indicators for trading signals, Price sensitive technique, Volume sensitive techniques , Composite methods, How to use tool kit of trading techniques? Trading market tool kit applications, Bull market tool kit applications, Bear market tool kit applications, Trading market changing to bull market tool kit application , Trading market changing to bear market tool kit application, Bull market changing to trading market tool kit application , Bear market changing to trading market tool kit application.	6 + 1
4	Trading Strategies : Day trading, Advantages of day trading, Risks associated with risk day trading, Strategies for day trading, Momentum trading strategies. Technical Theories : Dow Theory and Elliot Wave Theory - Introduction , Principles of Dow Theory , Significance of Dow Theory , Problems with Dow Theory , Elliot Wave - Introduction , Fundamental Concept , After Elliott	4 + 1
5	Trading Psychology & Risk Management : Introduction , Risk Management , Components of risk management, Stop loss, Analyze reward risk ratio, Trail stop loss, Booking Profit, Uses of stop loss , Qualities of successful trader , Golden rules of traders , Do's and don'ts in trading , Rules to stop losing money , Choosing the right market to trade , Importance of discipline in trading.	5 + 1

Learning Resources:		
1	Text Books	How to select stocks using technical analysis – Martin J. Pring Technical analysis of financial markets – a comprehensive guide to trading methods and applications – John J. Murphy Technical Analysis Explained: The Successful Investor's Guide to Spotting Investment Trends and Turning Points - Martin J. Pring Technical Analysis of Stock Trends, 8th Edition - Robert D. Edwards, John Magee, W. H. C. Bassetti
2	Reference Books	Encyclopedia of Chart Patterns (Wiley Trading) - Thomas N. Bulkowski
3	Supplementary Reading Material	NCFM Modules on Technical analysis Capital Markets Magazine
4	Websites	www.nseindia.com www.bseindia.com www.moneycontrol.com www.sebi.gov.in
5	Journals	Journal of Derivatives Journal of Derivatives & Hedge Funds Journal of Financial Markets Journal of Investing

Semester	III	Specialization	Finance
Course Code	416FIN	Type	Subject – Elective
Course Title	Commodity Market & Derivatives		

Course Objectives:

1	To equip young managers with the knowledge of emerging commodities derivatives trading practices in India.
2	To explain the regulatory framework of these markets and domestic and international historical developments in commodities market.
3	To highlight the importance of hedgers, speculators and arbitragers.
4	To highlight the importance of Commodity indices as an investment class.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: Historical changes and growth of global and domestic Commodities derivatives markets, FCR Act 1952 and Regulatory structure of Commodities Derivatives Markets in India, Commodities as a New Asset Class, International commodity indices and as an investment tool for investors, Internationally traded Commodities based ETFs, Difference between commodity and financial derivatives, Evolution of Commodity Exchange, NCDEX Platform - Structure of NCDEX, exchange membership, capital requirements, commodities traded on NCDEX platform, instruments available for trading, pricing of commodity futures, trading, clearing, settlement and risk management, use of commodity futures in hedging, speculation and arbitrage.	5 + 1
2	Product Design: Issues Related to Product Design and contract specifications, Issues related to Spot price and present practices of commodities exchanges, Basis Risk and its importance in pricing, Commodity Options on Futures and its mechanism	5 + 1
3	Market Mechanism: Clearing House operations and Risk Management Procedures, Delivery Related Issues like delivery centers, deliverable varieties, assaying, Issues related to monitoring and surveillance by Exchanges and Regulator, Role of intermediaries in Commodities Markets	5 + 1
4	Agricultural Commodities Markets & Non- Agricultural Commodities Markets: Issues in Agricultural Commodities Markets, Agricultural Commodity Futures trading pattern in Exchange – Case study , Issues in Non-Agricultural Commodities Derivative Exchanges and design of the markets, Non- Agricultural Commodity Futures trading pattern in Exchange – Case study	5 + 1
5	Regulation Framework & Taxation Aspects: Essential Commodities Act and role of state governments, Intermediaries, Investor Grievances and arbitration, Implications of Sales Tax, Warehousing Act Bill and its implications. Commodity Research: Introduction to Fundamental and technical analysis of commodity.	5 + 1

Learning Resources:		
1	Text Books	Commodity Derivatives – IIBF Futures & Options (equities & commodities) – A.N. Sridhar Commodity Derivatives: Markets and Applications - Neil C. Schofield Commodity Derivatives: Markets and Applications (The Wiley Finance Series) - Neil C. Schofield
2	Reference Books	Commodities and Commodity Derivatives: Modeling and Pricing for Agricultural, Metals and Energy – Helyette Geman Risk Management in Commodity Markets: From Shipping to Agricultural and Energy (The Wiley Finance Series) – Helyette Geman Guide to Indian Commodity Market : Ankit Gala & Jitendra Gala
3	Supplementary Reading Material	NCFM Module on Commodity Derivatives Capital Market Magazine
4	Websites	www.nseindia.com www.bseindia.com www.mcxindia.com www.ncdex.com
5	Journals	International Journal of Financial Markets and Derivatives Financial markets, Institutions and Instruments

Semester	IV	Specialization	Finance
Course Code	417FIN	Type	Subject – Elective
Course Title	Practice of Life Insurance		

Course Objectives:

1	To provide an understanding of life insurance products
2	To provide an understanding of the functioning of life insurance

Syllabus:

Unit Number	Contents	Number of Sessions
1	Life Insurance Organization: Introduction, Organizing, Internal Organization, The Distribution System, Appointment of Agent, Functions of Agent, Continuance of Agency, Trends in Life Insurance, Premiums and Bonuses, Premium, Risk management, Net and Pure Premium, Premium Calculation, Actuarial Valuation, Bonus, Reversionary Bonus	5 + 1
2	Plans of Life Insurance: Death Cover , Survival Benefit , Term Assurance , Pure Endowment ,With Profit and Without Profit Policies , Joint Life Policies , Children's' Plans, Variable Insurance Plans, Riders, Postal Life Insurance. Annuities Group Insurance: Meaning of Group Insurance, Types, Group Gratuity Schemes, Ways to meet Gratuity Liability, Group Superannuation Scheme , Group Leave Encashment Scheme, Other Group Schemes. Social Security Schemes, Other Special Need Plans, Industrial Life Insurance, Married Women's Property Act Policies , Key Man Insurance, Plans Covering Handicapped. Health Products Linked Insurance Plans: What Is Linked Policy, Equity Funds, Debt Funds, Money Market Funds, Liquid Funds, Balanced Funds, Flexibility, Top-Up-Premium Holiday, Net Assets Value, Annuities and Pensions, IRDA Guidelines.	5 + 1
3	Application and Acceptance: Principle of Utmost Good Faith, Insurable Interest, Prospectus , Proposal Forms and Other Related Documents Alterations, Duplicate Policy. Premium Payment , Lapse and Revival , Age, Premium , Where To Pay, Surrender Values, Non-Forfeiture Option, Revival, Special Revival Scheme, Installment Revival Scheme, Loan-Cum – Revival Scheme. Assignment, Nomination, Loans, Surrenders, Foreclosure	5 + 1
4	Policy Claims: Policy Claims, Maturity Claims, Survival Benefit Payments, Death Claims, Waiver of Evidence of Title, Early Claims, Claims Concession, Presumption of Death , Accident Benefit and Disability Benefit , Permanent Disability Benefit, Post Maturity Options , Settlement Options, Precautions.	5 + 1
5	Reinsurance, Exchange Control Regulations, Payment of Premiums, Payment of Claims Etc. Assignment in Favour of Non-Residents, Deposits, Export of Policies, Information Technology, Intranet and Internet, Benefits To Agents, Benefits To Policy Holders/ Prospects – Kiosks , IT in The Rural Areas, Internal Processing, IRDA Regulations.	5 + 1

Learning Resources:

1	Text Books	Insurance – Tripathi & Prabir Pal – Prentice Hall of India Life Insurance: Principles & Practice by NIA Life Insurance Underwriting by NIA
2	Reference Books	Insurance & Risk Management – R.K. Gupta – Himalaya Publishing, Insurance Products – Indian Institute of Banking & Finance – Taxman's Publications
3	Supplementary Reading Material	
4	Websites	www.licindia.com ,
5	Journals	Life Insurance Today

University of Pune

Semester	IV	Specialization	Finance
Course Code	418FIN	Type	Subject – Elective
Course Title	Information Systems Audit		

Course Objectives:

1	To get acquainted with the concept and importance of Auditing in the organizational functionality
2	To know the changed and emerging role of Systems Audit
3	To get the practical inputs with regard to the Systems Audit

Syllabus:

Unit Number	Contents	Number of Sessions
1	Basics: Concept of Auditing, Differentiation with regard to Internal Checks and Internal Controls, Concepts of posting, vouching, tracing, Emerging trends of Auditing, Role of Auditor in the Organization, Test Checks, Types of Audit, Required Competencies, Sector and Industry Specific prerequisites of Audit, Audit Reports, Types of Audit Reports	5 + 1
2	Concept of Systems Audit: Emerging concept of Systems Audit, Time and Cost effectiveness, Convenience, Competent Authorities involved, Role of Systems Auditor, Internal and External Systems Auditor, Role of ERP in Systems Audit, Prerequisites of Systems Audit	4 + 1
3	System & Infrastructure Maintenance: Review of the existing information flows in the organization, systems in the organization, inputs, process, validation and output, modifications, authorizations, maintenance process, disposal process, Review of Master Files, checking of authorization codes, Logical access and Physical access, maintenance of the confidentiality of the information, Difference between physical and system records	4 + 1
4	Security Administration & Operations' Audit: Security Threats of the information – Physical and System based, Disaster recovery plans for the information, design and implementation of information validation, role of management in the operations and information security, integrity of information processing, connect of existing internal checks /controls with the information systems	6 + 1
5	Global & Indian perspective: Certifications available in Systems Audit, Institutes / Organizations providing the Certifications, Connect between traditional audit and systems audit, organizations opting for systems audit, demand and supply gap for system auditors, linkage with the accuracy and reduction of scandals, advanced usage of IT in Systems Audit	6 + 1

Learning Resources:

1	Text Books	Accounting Information Systems – M.Kartikeyan – Avinash Paperbacks Principles of Accounting Information Systems by Hall
2	Reference Books	Analysis and Design of Information Systems – V. Rajaraman – Prentice Hall of India Auditing - D.G-Prasuna – ICFAI Press Auditing in a computerized environment – Mohan Bhatia – Tata Mc Graw Hill Contemporary Auditing – Kamal Gupta – Tata Mc Graw Hill
3	Supplementary Reading Material	The Chartered Accountant The Management Accountant Indian Journal of Finance
4	Websites	www.icaai.org www.isaca.org
5	Journals	ISACA Journal

Semester	IV	Specialization	Finance
Course Code	419FIN	Type	Subject - Elective
Course Title	Practice of General Insurance		

Course Objectives:

1	To understand the concept of General Insurance.
2	To understand various types of general insurance.
3	To get acquainted with the regulatory and legal framework of insurance.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Basic Concepts: Risk Management and Control-Concept of Risk – Risk v/s Uncertainty- Risk Management Objectives, Process and Control- Derivatives - Enterprise Risk Management - COSO Framework of ERM - Role of Chief Risk Officer. Fundamentals of Insurance - Related concepts - Mathematical basis of Insurance - Insurance Contracts and Provisions	7 + 1
2	Fire And Marine Insurance: Fire Insurance – Contracts – Proposals – Coverage, Marine Insurance – History - Nature of Contracts - Cargo Underwriting - Hull Underwriting -Marine Losses	5 + 1
3	Automobile Insurance & Health Insurance: Automobile Insurance – Overview – Need - Types of Policies.Health Insurance – Basics - Policies - Micro Health Insurance in India. Other Types of Insurance - Rural Insurance - Social Insurance - Project and Engineering Insurance - Liability Insurance - Aviation Insurance- product liability insurance – Natural calamities and terrorism insurance	7 + 1
4	Regulatory Framework: Insurance Legislation And Regulation - Insurance Act 1938, Life Insurance Corporation Act 1956, General Insurance Business (Nationalization) Act 1972.	3+1
5	Role And Importance Of IRDA: Role of Insurance Regulatory and Development Authority(IRDA) - IRDA Act 1999 - Schedules of IRDA Act - Motor Vehicle Act 1988 - Marine Insurance Act 1963	3+1

Learning Resources:

1	Text Books	Insurance and Risk Management, 2 nd Edition,P.K.Gupta,Himalaya Publishing House Insurance, Principles and Practice, S.N.Mishra, S.B.Mishra, S Chand Practical Approach to General Insurance Underwriting by NIA General Insurance: Principles & Practice by NIA General Insurance Business Operations and Decision Making by NIA
2	Reference Books	Principles of Insurance Management, Neelam Gulati, Excel Books Indian Insurance Industry, Transition and Prospects ,D C Srivastava, Shashank Srivastava, New Century Publications
3	Supplementary Reading Material	Principles of Risk Management and Insurance,9 th Edition, George Rejda, Pearson Education
4	Websites	National Insurance Academy
5	Journals	Journal by NIA

Semester	IV	Specialization	Finance
Course Code	420FIN	Type	Subject – Elective
Course Title	Financing Rural Development		

Course Objectives:

1	To understand the need and importance of financing rural development
2	To know the schemes floated by the Government of India and its scope
3.	To analyze the needs of rural businesses and its viability

Syllabus:

Unit Number	Contents	Number of Sessions
1	Rural Financial Services: Introduction, rural indebtedness – causes – magnitude and legislation – rural financial markets formal/informal Need and Nature of financial services, Rural credit needs, estimate of credit requirements. Financial services paradigm shift-supply vs. demand led financial services – selling vs. marketing – design and delivery of financial services understanding rural clientele, Area approach and Credit Planning: Lead Bank scheme – priority sector lending –Innovation in rural lending.	5 + 1
2	Assessment of Credit Needs: Production credit – crop loan requirements–rescheduling in case of crop failure and recovery through sale of crops by tie up arrangements with marketing societies. Financing of Trade and Business: Appraisal of rural non- farm sector schemes – concepts of rural non- farm sector – importance in employment generation – Khadi and village industries, village and cottage industries, tiny industries, Draft rural industrialization policy of Govt. of India Entrepreneurship development programs, composite loan scheme	5 + 1
3	Investment credit: Project approach and appraisal of investment – technical, financial, commercial, social and economic feasibility – cost benefit analysis and return on investment – determining bank loan, repayment schedule with built in monitoring and evaluation mechanism.	5 + 1
4	Government Initiatives involving Bank Credit: Poverty alleviation programs/employment programs/ production oriented programs – rationale and philosophy, progress and impact, problems and deficiencies IRDP, DWACRA, TRYSEM, SCAP/STAP, MNPA, JRY – Mehta Committee Report on IRDP.	5 + 1
5	Problems and Prospects in Rural Financing: Problems and prospects in rural financing – sustainability and outreach – overdue – Examples of Rural Banking	5 + 1

Learning Resources:

1	Text Books	Rural Development: Concept, Approach and Strategy - B. K. Prasad
2	Reference Books	Rural Development in India - Kulwant Rai Gupta Institutional Finance for Rural Development - Veerashekarappa
3	Supplementary Reading Material	Institutional finance and rural development - Benson Kunjukunju, Mohanam
4	Websites	rural.nic.in www.nabard.org
5	Journals	Journal of Rural Development

Semester	IV	Specialization	Finance
Course Code	421FIN	Type	Subject – Elective
Course Title	Social Finance for Inclusive Growth – II		

Course Objectives:

1	To understand new avenues available in agricultural sector for hedging risk.
2	To understand the importance of technology in the primary sector

Syllabus:

Unit Number	Contents	Number of Sessions
1	Weather Derivatives & Crop Insurance : Weather insurance in Agriculture, Livelihood Risk Management using Crop Insurance; Index Based Insurance are discussed, with valuation of insurance products workings.	5 + 1
2	Commodity Finance and Risk Management: Indian commodity derivatives , how have they benefitted farmers, allied Cases	5 + 1
3	Technology Innovations for Financial Inclusion: Innovations in transaction banking enabling poor to have financial market access. Allied cases.	5 + 1
4	Credit Rating : Credit Rating Models of Social Finance, Credit Scoring Model, Credit Information for Microenterprises, SME Exchange in India	5 + 1
5	Corporate Governance & Social Finance: Governance issues, including board composition, disclosures, and fiduciary responsibilities of companies that are in the social investing space. Governance mechanisms of private listed/unlisted companies as per SEBI Guidelines.	5 + 1

Learning Resources:

1	Text Books	New Trends in Banking – VV Ravikumar – ICFAI Press, Principles & Practice of Banking – IIBF – Macmillan Publishing
2	Reference Books	Portfolios of the Poor, by Daryl Collins, Jonathan Morduch, Stuart Rutherford, and Orlanda Ruthvan, Princeton University Press. Markets for the Low-income Customer, Monitor Inclusive Markets (2010). Bridges Ventures: "Investing for Impact, Case Studies across Asset Classes" March 2010; AugustinLandier and Vinay Nair, Investing for Change, Oxford University Press, Dec 2008 Nothing Ventured, Nothing Gained: Addressing the Critical Gaps in Risk-
3	Supplementary Reading Material	"Taking capital for Social Enterprise," Jed Emerson, Skoll Centre for Social Entrepreneurship at Oxford SAID Business School; Acumen Fund: Valuing a Social Venture: Michigan Business School; Initial Public Offers: SKS in India, Harvard Business School Case Study.
4	Websites	www.gov.in
5	Journals	

MBA SYLLABUS: SEMESTER IV
INFORMATION TECHNOLOGY MANAGEMENT - SPECIALIZATION

University of Pune

Semester	IV	Specialization	Information Technology
Course Code	403IT	Type	Subject Core
Course Title	Software Project Management		

Course Objectives:

1	To understand different aspects of Software Project Management as an important field of practice under IT Management
2	To learn tools and techniques of Software Project Management
3	To understand importance of, and learning techniques to ensure, software quality
4	To learn to use a Software Package for Software Project Management

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to Software Project Management – Software Projects Vs. Other Projects – Contract Management and Technical Project Management – Activities under technical project management – Plans, Methods and Methodology – Stakeholders – Business Case	7 + 1
2	Project Planning, Evaluation and Program Management – Steps in Project Planning and Project Evaluation – Strategic Assessment – Technical Assessment – Cost Benefit Analysis –Cash Flow Forecasting – Process Models – Prototyping – Dynamic Systems Development – Extreme Programming – Managing Iterative Processes	7 + 2
3	Software Effort Estimation – Estimation Techniques – Expert Judgment – Analogy – Function Point Analysis – Object Points – Procedural Codes – COCOMO Model Activity Planning – Project Schedules – Sequencing and Scheduling – Network Planning – Using PERT and CPM for activity planning – Forward Pass – Backward Pass – Activity-on-arrow networks Managing Contracts – Types of contracts – Stages in contract placement – Contract Management and Acceptance Software Quality Management – Defining Software Quality – Requisite ISO Standards – Product Vs. Process Quality – Enhancing Software Quality – Quality Planning	9+2
4	Risk Management in Software Projects – Nature and Types of risk – Managing risks – Risk Analysis, Planning and Control – Strategies for risk reduction – PERT as a tool of Risk Management Resource Monitoring and Control–Creating Control Framework – Reporting for Control – Visualizing Progress – Cost Monitoring – Change Control	7+2
5	Using Project Management Software – Introduction to either of Microsoft Project 2010, Prince2 and Primavera and learning to use any one of these products	5+3

Learning Resources:

1	Text Books	Software Project Management, 5 th Edition, Hughes, Cotterel, Rajib Mall, Tata McGraw Hill
2	Reference Books	Software Project management in practice by Pankaj Jalote Software project management by Rajendra Mishra
3	Supplementary Reading Material	
4	Websites	www.projectbubble.com www.sei.cmu.edu
5	Journals	International Journal of Software Project management

Semester	IV	Specialization	Information Technology
Course Code	404IT	Type	Subject Core
Course Title	Enterprise Resource Planning		

Course Objectives:

1	To acquire in-depth knowledge of ERP as a prime Application Software product
2	To learn operational aspects of ERP implementation and support
3	To know features of important ERP modules
4	To learn, through case studies, practical aspects of ERP in various industries

Syllabus:

Unit Number	Contents	Number of Sessions
1	Enterprise Resource Planning What is ERP? - Features of ERP (Basic and Advanced) – ERP Architecture – ERP Need Analysis – Return on Investment for ERP	7+2
2	ERP Implementation and Support ERP Life Cycle, Methodologies and Strategy – Vendor and Software Selection –Business Process Re-engineering related to ERP - Implementation Process – Change Management – Post Implementation Support, Maintenance, Security	5+2
3	ERP Functional Modules Human Resource Management Accounting and Finance Procurement, Inventory Control Production Planning, Operations Sales, Customer Relationship Management e-Commerce	9+2
4	ERP Technology Areas, Enterprise Applications Portal and Content Management, Data Warehousing and Data Mining, Business Intelligence and Analytics - Emerging Trends in ERP Applications	7+2
5	ERP Case Studies Case Studies of ERP Implementation in Manufacturing and Service Sectors	7+2

Learning Resources:

1	Text Books	Enterprise Resource Planning, Ray, Tata McGraw Hill
2	Reference Books	ERP Demystified, Alexis Leon, Tata McGraw Hill Enterprise Resource Planning, A Managerial Perspective, Goyal, Tata McGraw Hill
3	Supplementary Reading Material	Enterprise Resource Planning (ERP): A review of the literature by Young B. Moon, International Journal of Management and Enterprise Development, Vol. 4, No. 3
4	Websites	www.sap.com erp.iitkgp.ernet.in
5	Journals	Journal of Enterprise Resource Planning Studies

Semester	IV	Specialization	Information Technology
Course Code	405IT	Type	Subject - Elective
Course Title	Web Designing & Multimedia		

Course Objectives:

1	To acquire technical competence in Web Designing and Multimedia Applications
2	To learn to use HTML, VB Script and Java script
3	To integrate Web and Multimedia with business objectives of the organization

Syllabus:

Unit Number	Contents	Number of Sessions
1	Multimedia and hypermedia, world wide web, overview of multimedia software tools. Graphics and image data representation graphics/image data types, file formats, Color in image and video: color science, color models in images, color models in video.	5+1
2	Fundamental concepts in video and digital audio Types of video signals, analog video, digital video, digitization of sound, MIDI, quantization and transmission of audio.	5+1
3	HTML - tags, lists, tables, Frames, layers , using images in web pages and DHTML	5+1
4	Introduction in VB Script - Data types, operators, control structures, functions and strings.	5+1
5	Introduction to java script - Operators, identifiers, control structures, functions arrays and error handling.	5+1

Learning Resources:

1	Text Books	Mastering HTML- CYBEX Publication
2	Reference Books	Complete Reference VB Script and Java Script – Tata McGraw Hill Dynamic HTML- O'Reilly Media Internet & Web Technologies- Tata McGraw-Hill Education
3	Supplementary Reading Material	
4	Websites	www.3school.com
5	Journals	International Journal of Web & Semantic Technology Web Technology Journal

Semester	IV	Specialization	Information Technology
Course Code	406IT	Type	Subject - Elective
Course Title	Network Technologies & Security		

Course Objectives:

1	To acquire an overview of (but not technical proficiency in) various computer networks, technologies behind networks and application protocols, e-mail and communication protocols
2	To develop awareness of managing networks well so as to offer high quality service to the users

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to Networking: Hardware Architecture, Topologies, Media, Devices. Transmission Technique, Twisted Pair, Coaxial Cable, Fiber optics, Wireless Transmission Switching, Circuit Switching, Message Switching, Packet Switching Common Network Architecture: Connection oriented Networks, Connectionless Networks Example of Networks - P2P, X.25, ATM, Ethernet Wireless LANs - 802.11, 802.11x, Gigabit	5+1
2	The OSI Reference Model: Protocol Layering, TCP/IP Model, OSI vs. TCP/IP Local Area Networks: Components & Technology, Access Technique, Transmission Protocol & Media Broad Band Networks: Integrated Service Digital Networks (ISDN), Broad Band ISDN, ATM, ATM Traffic Management. Introduction to Very Small Aperture Terminal (VSAT)	5+1
3	IP Addressing & Routing: IP addresses – Network Part and Host Part, Network Masks, Network addresses and Broadcast addresses, Address Classes, Loop Back Address, IP routing Concepts, Routing Tables, Stream & Packets. What IP does? What TCP does? Sliding Windows, TCP – a reliable pipe, TCP connection – Multiple conversations, Port Numbers, Multiple Connection from many hosts and one host. IPv6: The next generation Protocol Domain Network Services (DNS): Domain Names, Authoritative Hosts, Delegating Authority, Resource Records, SOA records, DNS protocol, DHCP & Scope Resolution SNMP: An IP Management Protocol Network Management protocols SNMP the Simple Network Management Protocol, Agents & Managers, SNMP Organization, Object Identifiers, Problem with SNMP	5+1
4	Network Applications: (HTTP, Email, etc.) Hyper Text Transfer Protocol (HTTP) HTTP communications - HTTP request, Request Headers, Responses, Status Code, Error Status. Code Email- Sending & Receiving Emails, Email Addressing, Message Structure MIME – Multipurpose Internet Mail Extensions SMTP – Simple Mail Transfer Protocol with examples Mail Exchangers – Delivering a message, Mail Boxes. POP – Post Office Protocol. IMAP – Internet Message Access Protocol. FTP – File Transfer Protocol. Telnet – Remote Communication Protocol. Proxy Server, Proxy Web Servers.	5+1
5	Network Security: Threats, Packet-filtering firewalls, Firewall policies and rules, Common Problem with Packet Filtering, SSL – Secure Socket Layer, Internet Protocol Security (IPSEC), Virtual Private Networks, Symmetric Key Signatures, Public key Signatures, The Birthday Attack	5+1

Learning Resources:		
1	Text Books	Computer Networks Andrew S. Tanenbaum 4e
2	Reference Books	Network Essential Notes GSW MCSE Study Notes Internetworking Technology Handbook CISCO System Introduction to Networking and Data Communications Eugene Blanchard
3	Supplementary Reading Material	Computer Networks and Internets with Internet Applications Douglas E. Comer
4	Websites	www.cert.org
5	Journals	International Journals of Internet Security & Its Applications International Journal of Wireless Networks and Broadband Technologies

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Semester	IV	Specialization	Information Technology
Course Code	407IT	Type	Subject - Elective
Course Title	Database Administration		

Course Objectives:	
1	To know duties and responsibilities of a Data Base Administrator
2	To learn DBA skills through select tasks

Syllabus:

Unit Number	Contents	Number of Sessions
1	Job Specifications of Data Base Administration. Overview of Memory structure, process structure and storage structure of Oracle , Installation of Oracle using Oracle Universal Installer	6
2	Create database using DBCA, startup and shutdown of oracle using log and trace files and data dictionary	6
3	Configure and manage oracle network, create and manage tablespaces	6
4	Create and manage database user accounts, privileges, role and profiles	6
5	Monitor and resolve locking conflicts, manage undo	6

Learning Resources:		
1	Text Books	Oracle 9i, 10g or 11g Manuals
2	Reference Books	Database Administration: The Complete Guide to Practices and Procedures by Craig Mullins DBA Survivor Expert Oracle Database Administration by Sam Alapati, Dreamtech Press
3	Supplementary Reading Material	
4	Websites	www.databasejournals.com www.dbametrics.com
5	Journals	Database Journals: The knowledge center for database professionals

Semester	IV	Specialization	Information Technology
Course Code	408IT	Type	Subject - Elective
Course Title	Software Testing		

Course Objectives:	
1	To understand scope of Software Testing Activity
2	To learn tools and techniques of Software Testing
3	To develop skill to design suitable test procedure in a given software development environment

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Software Testing Principles: Basic concepts - Need of testing , errors, faults, defects Defects – Process defects, design defects, data defects Reducing the frequency of defects in software development Factors affecting software testing Testing constraints Life cycle testing Tester's workbench</p>	5+1
2	<p>Levels of Testing: Verification and Validation Functional and Structural Testing Static and Dynamic Testing V Concept of Testing with Testing Stages</p> <p>Types of Testing: Unit Testing, Integration Testing, System Testing- Performance, Load, Stress, Volume Testing, Regression Testing, Alpha, Beta and Acceptance Testing , Functional Testing, Performance Testing, Recovery Testing, White Box Testing, Black Box Testing, Gray Box Testing Security testing- Types of Security Testing: Network Scanning, Vulnerability Scanning, Password Cracking, Log Reviews, File Integrity Checkers, Virus Detectors, Penetration Testing Usability Testing Manual versus Automated Testing Static versus Dynamic Testing Compliance Testing</p>	5+1
3	<p>Test Management: Testing Life Cycle – Roles and activities, Test Planning – forming a test team, develop test plan reviews, structured walkthroughs Test Cases design strategies</p> <p>Test Execution: build test data, life cycle of defect, defect tracking, defect detection stages, defect detection stages, defect types, defect severity, defect analysis and prevention.</p>	5+1

4	<p>Functional Testing(black box): random testing, equivalence class partitioning and boundary value analysis, Cause effect graphing, Syntax testing</p> <p>Structural Testing(white box): test adequacy criteria, coverage (Branch and decision coverage, path coverage) and control flow graphs, paths, loop testing, mutation testing. Black Box testing versus White Box Testing</p>	5+1
5	Overview of testing tools including open source tools for software testing	5+1

Learning Resources:

1	Text Books	Effective Methods for Software Testing, William E Perry, 2nd Edition, Wiley Publication
2	Reference Books	Practical Software Testing, Ien Burnstein, Springer Publication, 2003 Software Testing and continuous Quality improvement, William E Lewis, CRC Press, 2009 Software Engineering , Pressman, Fifth Edition
3	Supplementary Reading Material	
4	Websites	www.onestoptesting.com
5	Journals	Software Testing, Verification and Reliability, Wiley Automated Software Engineering, MetaPress

Semester	IV	Specialization	Information Technology
Course Code	409IT	Type	Subject - Elective
Course Title	Information Security & Audit		

Course Objectives:	
1	To understand perspectives of Information Security risks
2	To appreciate security audit as a preventive system
3	To know other techniques / approaches of risk prevention

Syllabus:		
Unit Number	Contents	Number of Sessions
1	Information Security Risk Analysis Fundamentals. Importance of Physical Security and Biometric Controls for Protecting Information Systems Assets.	5+1
2	Overview of Network Security Perspectives, Networking and Digital Communications, Security of Wireless Networks.	5+1
3	Cryptographic Techniques and Encryption. Intrusion Detection Systems and Firewalls. Security of Virtual Private Networks.	5+1
4	Auditing concepts - Information Security Audit - Need, Concept, Standards, Performance, Steps, Techniques, Methodologies, around and through computer	5+1
5	Controls – Concept, Objectives, Types, Risk, Exposure	5+1

Learning Resources:		
1	Text Books	Information Security and Auditing in the Digital Age by: Amjad Umar
2	Reference Books	Computer Security, Art and Science by Matt Bishop, Pearson Management Information Systems by Laudon, Laudon, Dass, Pearson
3	Supplementary Reading Material	-
4	Websites	-
5	Journals	-

Semester	IV	Specialization	Information Technology
Course Code	410IT	Type	Subject - Elective
Course Title	Data Warehousing & Data Mining		

Course Objectives:	
1	To learn operational aspects of Data Warehousing and Data Mining
2	To know applications of Data Warehousing / Data Mining in business

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to data mining (DM) Kind of data, DM Functionalities, Classification of DM Systems, Issues in DM. What is Data warehousing (DW)? Multidimensional data model: Data cubes, Stars, snowflakes and fact constellations Defining schemas, concept hierarchies, OLAP	5+1
2	Data Warehouse Architecture Steps for design and construction, Three-tier Data Warehouse architecture, Types of OLAP servers: ROLAP versus MOLAP versus HOLAP	5+1
3	Data Warehouse Implementation: Efficient computation of Data cubes Indexing OLAP Data and efficient processing of OLAP queries Back-end tools and utilities	5+1
4	Data Preprocessing Why to preprocess data?, Data cleaning: Missing Values, Noisy Data, Data Integration and transformation, Data Reduction: Data cube aggregation, Dimensionality reduction. Data Compression, Numerosity Reduction Discretization and Concept Hierarchy Generation	5+1
5	Data Mining Primitives, Languages and System Architectures: Task relevant data, Kind of Knowledge to be mined, DM Query languages: Syntax, Designing GUI, Architectures of DM Systems Concept of Cluster Analysis. Application and trends in Data mining Data Mining for Financial data analysis, Data Mining for retail industry, Data mining for telecommunication industry	5+1

Learning Resources:		
1	Text Books	Data Mining Concepts and Techniques, J. Han, M. Kamber, Morgan Kaufmann Publishers, 2001.
2	Reference Books	Data mining: Concepts, Models, Methods and Algorithms, M. Kantardzic, John Wiley & Sons Inc., 2003. Data Mining: Introductory and Advanced Topics, M. Dunham, Pearson Data mining: Practical machine learning tools and techniques, H. Witten, E. Frank, 2nd ed., Morgan Kaufmann Publishers, 2005. Data mining: A tutorial-based primer, R. J. Roiger, M. W. Geatz, Pearson Education, 2003. UCI Repository of Machine Learning, C. L. Blake, C. J. Merz. 19 July 2002.
3	Supplementary Reading Material	
4	Websites	http://www.cs.waikato.ac.nz/ml/weka http://www.infoacumen.com ftp://axon.cs.byu.edu/pub/randy/ml/drop/ http://www.crisp-dm.org . http://www.dmg.org
5	Journals	International Journal of Data Warehousing and Mining (IJDWM) International Journal of Data Mining, Modeling and Management

Semester	IV	Specialization	Information Technology
Course Code	411IT	Type	Subject - Elective
Course Title	Geographical Information System		

Course Objectives:	
1	To explore and understand concept of Geographical Information Systems
2	To know tools and techniques of G. I. S.
3	To develop skills to implement G. I. S. in appropriate situations

Syllabus:		
Unit Number	Contents	Number of Sessions
1	Conceptual Framework of GIS , GIS Structure & Function Coordinate Systems, GIS Data, Database Design & Development	5+1
2	Function and Structure of Maps, Overview of Public Data Sources	5+1
3	Basic GIS Operations, Fundamentals of Data Visualization, Advanced Querying	5+1
4	Linear Operations on Spatial Data, Spatial Modeling and Analysis Data Visualization and Presentation for GIS, GIS Modeling , Spatial Interpolation Error Evaluation and Management	5+1
5	GIS for Decision Making, GIS Organization and Management GIS Applications	5+1

Learning Resources:		
1	Text Books	Concepts and Techniques of Geographic Information Systems , Lo, C.P. and Yeung, A.K.W. (2002).. Prentice Hall.
2	Reference Books	Fundamentals of Geographic Information Systems. DeMers, M.N. (1999) 2nd Ed., Wiley Press.
3	Supplementary Reading Material	Principles of Geographical Information Systems Burrough, P.A. and R.A. McDonald (1998), Oxford University Press.
4	Websites	www.esri.com
5	Journals	-

Semester	IV	Specialization	Information Technology
Course Code	412IT	Type	Subject - Elective
Course Title	E-Governance		

Course Objectives:

1	To learn operational aspects of e-Governance
2	To know tools and techniques of e-Governance
3	To acquire / develop skills of implementing e-Governance in appropriate situations

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: Definition, Why e- governance?, G to G , G to C, C to G , G to B and B to G , issues in e-governance applications and digital divide, Evolution of e-governance Stages in E- Governance Evolution	5+1
2	E-Governance Models Broadcasting/ Wider Dissemination model, Critical Flow model Comparative Analysis model, Interactive service model/Government –to-Citizen to Government Model (G2C2G) Evolution in E- Governance and Maturity Models E-Governance : strategies for success	5+1
3	E- Governance infrastructure Data Systems Infrastructure, Legal infrastructural preparedness Institutional infrastructural preparedness, Human infrastructural preparedness, Technological infrastructural preparedness	5+1
4	Applications of Data Warehousing and Data Mining in Government	5+1
5	Case studies, especially, on E- Governance in India	5+1

Learning Resources:

1	Text Books	E- Governance Concepts and case Studies- C.S.R Prabhu , Prentice Hall of India
2	Reference Books	-
3	Supplementary Reading Material	E-Governance: Transforming the national bone marrow, Journal of Management Research Year : 2002, Volume : 2, Issue : 3
4	Websites	www.egovamc.com/ egovstandards.gov.in/
5	Journals	Indian Journal of e-Governance

Semester	IV	Specialization	Information Technology
Course Code	413IT	Type	Subject - Elective
Course Title	Internet Marketing		

Course Objectives:

1	To understand, various approaches to Internet Marketing
2	To learn advantages and disadvantages of approaches to Internet Marketing
3	To develop skills to implement Internet Marketing under appropriate situations

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Introduction: What is internet marketing? Significance of internet marketing, benefits of internet to the marketer, how internet marketing differs from traditional marketing Marketplace, customers, online buyer behavior, competitors, suppliers, intermediaries Websites: People behind websites- owners, venture capitalists, creative directors, account and project managers, programmers, graphic designers, copy writers, marketers Types of websites- web portals, B2B, B2C, C2C, B2E(Business to employee), social networking, informational, entertainment</p>	5+1
2	<p>Social Media and social networking sites: An overview of social media and networking sites, The rise and dominance of social networking- Social media optimization, social media marketing Who is using social media and how? Social networking sites- types of audiences, generalist social networking, Niche market social networking, social bookmarking Blogging as a marketing strategy: Blogging basics- What is blogging? Types of blogs, who blogs, who reads them, how and why. Blogging as a marketing strategy- Benefits of blogging, pitfalls of blogging, the requirements for a successful marketing blog</p>	5+1
3	<p>Web based video: Who is watching what, video as a social media tool, web based video as a marketing tool Wikis , RSS, Mashups , virtual worlds and marketing Web and brand building - Brand – brand promise, brand personality, unique selling proposition, The web's place in brand building</p>	5+1
4	<p>E- commerce sites: sources of revenue - direct sales, indirect sales, paid memberships and Subscriptions, advertising Shopping on the social web- store layout, the shopping cart and check out process, intuitive and personal content provision, Feedback and reviews</p>	5+1
5	<p>Online promotion techniques: Search engine marketing, online PR, Online partnerships, interactive advertising, e-mail marketing, viral marketing</p>	5+1

Learning Resources:		
1	Text Books	Principles of Internet Marketing- new tools and methods for web developers by Jason I. Miletsky, Course Technology, Cengage Learning, 2009
2	Reference Books	Internet marketing- strategy, implementation and Practice- David Chaffey, Fiona Ellis- Chadwick, Richard Meyer, Kevin Johnston, Pearson Education Limited, 2006 The ultimate Web- Marketing Guide- Michael Miller, Pearson Education(QUE) , 2011
3	Supplementary Reading Material	Search Engine optimization your visual blueprint for effective internet marketing- Kristopher B. Jones, Wiley Publishing
4	Websites	www.interdigitalmarketing.com/
5	Journals	Internet Marketing Research & Theory

Semester	IV	Specialization	Information Technology
Course Code	414IT	Type	Subject - Elective
Course Title	Microsoft Office 2010Lab		

Course Objectives:

1	To enable students working in Microsoft office 2010 organize work more efficiently & develop a fully unified office with Microsoft suite.
2	To provide an opportunity to learn advanced and uncommon features of office – 2010 as an aid to career growth

Syllabus:

Unit Number	Contents	Number of Sessions
1	Microsoft Word : Tabs, Tables & sorting, Working with Graphics, Templates, wizards & sample documents, writers tools, Macros, custom toolbars, key board shortcuts & menus, Introduction to mail merge	5
2	Microsoft Excel : Excel Formatting Tips, & techniques, organizing large projects, introduction to functions, excel chart features, working with graphics in excel, vlookup, conditional formatting, command macros, IF function, Pivot Table, Excel 2010 keyboard shortcuts	8
3	Presenting With PowerPoint: Creating Presentations, use photos in PowerPoint, Working with Graphics & Multimedia in PowerPoint, Presenters Mode	5
4	Microsoft Access: Introduction to access, Creating database & tables, Forms, Entering & Editing Data, Relational Database, Expressions, Macros & other automation, graphics in Database, Troubleshooting, Maintaining & protecting database	6
5	Microsoft Outlook: Managing address book & distribution lists, organizing, filtering & using automatic response, Managing your contacts, scheduling appointments, meetings, Using Templates, Use e-mail signature in outlook, use e-business cards in outlook, manage the mails with conditional formatting	6

Learning Resources:

1	Text Books	Excel 2010 Bible [With CDROM] by John Walkenbach John Wiley & Sons Word 2010 Bible by Herb Tyson John Wiley & Sons MOS 2010 Study Guide for Microsoft Word, Excel, PowerPoint, and Outlook by Joan Lambert III and Joyce Cox (Apr 8, 2011) Microsoft Word 2010 Step by Step by Joyce Cox and Joan Lambert III PowerPoint 2010 Bible [Paperback] by Faithe Wempen
2	Reference Books	Microsoft Word 2010 in Depth by Faithe Wempen Microsoft Word 2010 Plain & Simple by Katherine Murray Beyond Bullet Points: Using Microsoft PowerPoint to Create Presentations That Inform, Motivate, and Inspire [Paperback] BPG Microsoft PowerPoint 2010 Plain & Simple by Nancy Muir Office 2010 Bible by John Walkenbach, Herb Tyson, Michael R. Groh, Faithe Wempen, Lisa A. Bucki
3	Supplementary Reading Material	Business Analysis with MS Excel by Conard Carlberg, Pearson Education
4	Websites	www.microsoft.com www.office.microsoft.com
5	Journals	-

University of Pune

MBA SYLLABUS: SEMESTER IV
OPERATIONS MANAGEMENT - SPECIALIZATION

Semester	IV	Specialization	Operations Management
Course Code	403OPE	Type	Subject Core
Course Title	Operations Strategy		

Course Objectives:

1	To emphasize the key role of operations in bringing about the growth and profitability of organizations.
2	To impart ideas, concepts and principles in operations strategy.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: Importance and Linkage with Corporate strategy, Strategies and values, Competing through operations. Operation strategy in global economy- Strategic alliances and production sharing, fluctuations of international financial conditions and international companies. Changing nature of world business. Quality, Customer service and cost challenges and social responsibility, Current perspective-Strategic fit	7 + 2
2	Methodology for Developing Operations Strategy: Value as business concept – strategic issues in manufacturing – Value Chain concept Focus, core competence and distinctive capabilities – stake holders & strategy, Checking markets, Outcome of Market debate – Linking manufacturing to Markets – strategic integration – why products sell in the markets – Order Winners, Order Qualifiers. Lean systems-Eliminating waste.	7 + 2
3	Operation Strategy Implementation: Technology strategy Issues in New Product development Time to market – strategic nature of process– Business implication of Process choice – Hybrid Process. Change management and Sustainability Procedure – company or plant based profiles – decisions for product reallocation – downsizing – Capacity decisions Progression & Regression. Evaluating various tradeoffs alternatives – Focused manufacturing – Product or process focus – Make or Buy – merits /demerits – value chain approach – just in time – lean manufacturing.	7 + 2
4	Strategic Resource Management: Importance, issues involved – organizational issues operational approaches to improving, delivery system, controlling operations – key performance Indicators, PQCDMS (Productivity, Quality, Cost, Delivery Time, Safety, Morale)	7 + 2
5	Role of Technology in Operations Strategy: Automated production system with Robotic systems. Use of IT and ITES enabling the effective strategy and resource implementation. ERP/SAP for decision making.	7 + 2

Learning Resources:		
1	Text Books	Operations Management by Terry Hill, Palgrave, 2 nd Edition. Operations Now by Byron Finch, TMGH, 3 rd Edition. Operations Management by Norman Gaither, Greg Frazier, Cengage Learning, India Ed.
2	Reference Books	Operations Management – An Integrated Approach by Samson and Singh, Cambridge. Operations Management for Competitive Advantage by Chase, Jacobs, Aquilano and Agarwal, TMGH, 11 th Edition.
3	Supplementary Reading Material	Strategic Operations Management by Brown, Lamming, Bessant and Jones, Butterworth Heinemann, 2 nd Edition.
4	Websites	http://www.enotes.com/operations-strategy-reference/operations-strategy
5	Journals	Setting manufacturing strategy for a company's international manufacturing network by Miltenburg, John. International Journal of Production Research, Nov2009, Vol. 47 Issue 22 Breaking The Trade-Off Between Efficiency and Service by Frei, Frances X., Harvard Business Review, Nov2006, Vol. 84 Issue 11 Agile MPC system linking manufacturing and market strategies by Deif, Ahmed M.; ElMaraghy, Waguih H. Journal of Manufacturing Systems. Apr2007, Vol. 26 Issue 2, p99-107. Linking of manufacturing strategy, market requirements and manufacturing attributes in technology choice: An expert system approach by Cil, Ibrahim; Evren, Ramazan., Engineering Economist. Spring98, Vol. 43 Issue 3, p183. Differentiating manufacturing focus by Hallgren, Mattias; Olhager, Jan. International Journal of Production Research. 9/15/2006, Vol. 44 Issue 18/19, p3863-3878. One more time: How do you win orders?: A critical reappraisal of the Hill manufacturing strategy framework by Spring, Martin; Boaden, Ruth., International Journal of Operations & Production Management. 1997, Vol. 17 Issue 7/8, p757-779.

Semester	IV	Specialization	Operations Management
Course Code	404OPE	Type	Subject Core
Course Title	Total Quality Management		

Course Objectives:

1	To give various perspectives on Quality and various contributors to Quality.
2	To provide an in-depth understanding of the various QC tools.
3	To introduce the frameworks of Global Quality Awards.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Quality Concepts :Defined, Quality Cost perspective ,Cost of Quality Quality Function, Spiral of Progress in quality, Little q and Big Q, Juran Trilogy, Internal and external quality perspective. Goods and service quality. Cost of poor quality, internal failure cost and external failure cost, appraisal cost, Prevention cost, Analysis of quality cost, hidden quality cost, Discovering the optimum, economic models of quality of conformance-Zone of improvement, zone of high appraisal, zone of indifference.</p> <p>Strategic Quality management: Companywide quality culture, Organizational vision, Mission and quality policy, formulation of quality goals, competitive benchmarking, Steps in implementing Total quality-Decide, Prepare, Start, Expand and Integrate. Quality Circle</p>	7 + 2
2	<p>Quality Gurus: Demings' 14 point philosophy, Juran, Crosby philosophy, Ishikawa, Taguchi, Feigenbaum. Comparison of quality philosophy.</p>	7 + 2
3	<p>QC Tools: Problem Solving Methodology - Check list, Flow Chart, Tally charts and Histograms, Graphs, Pareto Analysis , Cause and Effect Diagram, Brainstorming, Scatter diagram and regression analysis. Quality Function Deployment - Introduction, Customer needs, Customer priorities and competitive comparisons and planned improvements, Design features or requirements, Central relationship matrix-What's versus the How's , relative weights of importance. Design features interactions, target values, Technical comparison ,service information and special requirements-Difficulties associated with QFD, Implementation of QFD</p>	7 + 2
4	<p>Statistical Quality Control: Necessity and Importance of SQC, Process capability, Six Sigma quality, Process control, Process control for attributes, p charts and c charts, Process control for variables, X bar R chart, acceptance sampling, OC curves, Average Outgoing Quality Limit (AOQL),Sampling plans</p>	7 + 2
5	<p>Quality Management Awards and frameworks: Malcolm Baldrige National quality award, Deming prize, ISO 9000-2000,CII, Ramakrishna Bajaj Awards, Tata Business Excellence Model (TBEM)</p>	7 + 2

Learning Resources:		
1	Text Books	Operations Management: Theory and Practice by B Mahadevan, Pearson, 2 nd Edition Production and Operations Management by RB Khanna, PHI Managing Quality by Dale, Blackwell Publication. Quality Management by Howard Gitlow, Alan Oppenheim, Rosa Oppenheim and David Levine, TMGH, 3 rd Edition.
2	Reference Books	Operations Management: An Integrated Approach by Danny Samson and Prakash Singh, Cambridge University Press.
3	Supplementary Reading Material	Managing Quality Edited by Barrie G Dale, Ton van der Wiele and Jos van Iwaarden, Blackwell Publishing, 5 th Edition.
4	Websites	http://managementhelp.org/quality/total-quality-management.htm www.isixsigma.com www.asq.org
5	Journals	Journal of Operations Management Total Quality Management & Business Excellence Quality Assurance International Journal of Reliability, Quality & Safety Engineering Journal of Quality Management

Semester	IV	Specialization	Operations Management
Course Code	405OPE	Type	Subject - Elective
Course Title	Quality Management Standards		

Course Objectives:

1	To introduce various management system standards.
2	To explain the implementation and role of MR for IMS.
3	To help the students understand the implementation of IMS through cases in services and manufacturing .

Syllabus:

Unit Number	Contents	Number of Sessions
1	Over view of IMS – QMS, EMS, OHSAS, TS: Introduction to core tools and TS 16949, Introduction to CMMI, Introduction to EFQM, Implementation requirements for certification	5 + 1
2	QMS Standards: Key clauses - 4.1 Process & documentation, 5.0 Top management , Organization and Role of MR, 6.0 Resource management, 7.0 Process control from Contract review to Calibration, 8 Monitoring measurement and improvement	5 + 1
3	EMS Standards: Key clauses -4.1 General requirement, 4.2 Policy, 4.3 Planning – registers , objectives & programs, 4.4 Implementation and operation, 4.5 Checking	5 + 1
4	OHSAS 18001:2007 Standards: Key clauses -4.1 General requirement, 4.2 Policy, 4.3 Planning – registers , objectives & programs, 4.4 Implementation and operation, 4.5 Checking	5 + 1
5	Study of Apex manual & Procedural manual for QMS: Service and Manufacturing set up, Study of Apex manual and procedural manual for EOHS, Study of core tools implementation requirement, Study of ERP, Legal register, Risk register and Impact registers and various programs & monitoring programs and SOPs & their inter relation	5 + 1

Learning Resources:		
1	Text Books	ISO 9001:2008 ISO 19011: 2002 ISO 9004 :2002 ISO 14001 :2004 OHSAS 18001: 2007 TS 16949:2002 EFQM model
2	Reference Books	Operations Management: An Integrated Approach by Danny Samson and Prakash Singh, Cambridge University Press.
3	Supplementary Reading Material	Managing Quality Edited by Barrie G Dale, Ton van der Wiele and Jos van Iwaarden, Blackwell Publishing, 5 th Edition.
4	Websites	http://www.ohsas-18001-occupational-health-and-safety.com/ http://www.iso14000-iso14001-environmental-management.com/ http://www.efqm.org/en/
5	Journals	The Integration of the Standards Systems of Quality Management, Environmental Management and Occupational Health and Safety Management by Matias, Joao Carlos De Oliveira; Coelho, Denis A., International Journal of Production Research, 10/15/2002, Vol. 40 Issue 15 Usefulness of the EFQM Excellence Model: Theoretical explanation of some conceptual and methodological issues by Rusjan, Borut., Total Quality Management & Business Excellence, May2005, Vol. 16 Issue 3 A Framework for TQM to Achieve Business Excellence by Hafeez, K.; Malak, N.; Abdelmeguid, H., Total Quality Management & Business Excellence, Nov2006, Vol. 17 Issue 9 Journal of Operations Management Total Quality Management & Business Excellence Quality Assurance International Journal of Reliability, Quality & Safety Engineering Journal of Quality Management

Semester	IV	Specialization	Operations Management
Course Code	406OPE	Type	Subject - Elective
Course Title	World Class Manufacturing		

Course Objectives:

1	To bring out the relevance and basics of World Class Manufacturing.
2	To highlight the current state of Indian Manufacturing
3	To provide a road map for World Class Manufacturing

Syllabus:

Unit Number	Contents	Number of Sessions
1	World Class Manufacturing and the Information Age: The emergence of the Information Age, Competing in the Information Age, Business challenges of the Information Age, Operating Environment of the Information Age, India's global Competitiveness and Manufacturing Excellence, World Class Manufacturing and the Information Age Competition, Manufacturing Challenges of the Information Age – Time based competition, Managing knowledge, Problems in the Manufacturing Industry – Coordination, Need for Control, Fragmented Information Infrastructure, Insufficient processability of available information.	5 + 1
2	Gaining Competitive Advantage through World Class Manufacturing: Manufacturing Excellence and Competitiveness, What is World Class Manufacturing? Hall's Framework of Value-added Engineering, Schonberger's framework of World Class Manufacturing, Gunn's model of World Class Manufacturing, Maskell's model of World Class Manufacturing, America's best plants model of World Class Manufacturing, Malcolm Baldrige National Quality Award, The Philosophy of World Class Manufacturing, The Evolution of World Class Manufacturing, The first principles of World Class Manufacturing, The Practices of World Class Manufacturing, Quality in World Class Manufacturing.	5 + 1
3	Systems and Tools for World Class Manufacturing: The integration imperative, Overview of systems and tools, Making sense of the manufacturing alphabet soup, Information management tools, Material processing and handling tools. Information management tools – Product and Process Design Tools, Bar Code Systems, Kanban, SQC, Business Integration and Decision Support Tools. Material processing and handling tools – Flexible Manufacturing Systems, Rapid Prototyping, Lean production tools, Poka Yoke, SMED. An assessment of Manufacturing systems and tools.	5 + 1
4	World Class Manufacturing – The Indian Scenario: Competitiveness of Indian Manufacturing, Manufacturing Performance and planned strategies of Indian Manufacturing firms, Manufacturing readiness of Indian Firms, Manufacturing Objectives and strategy, Usage of management tools and technologies, Manufacturing Management Practices, The Manufacturing Strategic Intent Framework, Strategic use of IT in Indian Manufacturing, Classification by breadth of IT infrastructure and depth of manufacturing applications, Classification by breadth and integration of IT infrastructure, Manufacturing Strategy – World class Status and IT Use: Is India Ready for World Class Manufacturing?	5 + 1

5	Leading India towards World Class Manufacturing: Business Strategy and Global Competitiveness, Generic Manufacturing Strategies for the Information Age, Developing strategic thinking in manufacturing, Issues in Strategic planning for World Class Manufacturing, Barriers to using IT strategically, Strategic Planning Methodology for World Class Manufacturing, Implementing the World Class Manufacturing Plan, Need for performance measurement – The PO-P System, The TOPP System, The AMBITE System, Quality Performance, Cycle Time, Delivery Performance and Customer Service, Financial Performance Measures, The Balanced Score Card, Human Resource Dimensions in World Class Manufacturing – Morale and Teamwork.	5 + 1
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Learning Resources:		
1	Text Books	World Class Manufacturing – A Strategic Perspective by B S Sahay, K B C Saxena, Ashish Kumar, Macmillan Publishers India Ltd., 1 st Ed. World Class Manufacturing by K. Sridhara Bhat, Himalaya Publishing, 1 st Ed.
2	Reference Books	Making Common Sense Common Practice – Models for Manufacturing Excellence by Ron Moore, Elsevier Pub., 3 rd Ed. Competitive Manufacturing Management by John Nicholas, TMGH, 2 nd Edition.
3	Supplementary Reading Material	The Japanese Manufacturing Techniques by Richard Schonberger, The Free Press Just in Time Manufacturing by M. G. Korgaonker, Macmillan Publishers India Ltd., 1 st Ed.
4	Websites	http://www.enotes.com/world-class-manufacturer-reference/world-class-manufacturer
5	Journals	International Journal of Operations & Production Management- Journal of Manufacturing Systems International Journal of Manufacturing Technology & Management Journal of Operations Management Manufacturing & Service Operations Management

Semester	IV	Specialization	Operations Management
Course Code	407OPE	Type	Subject - Elective
Course Title	Business Process Reengineering		

Course Objectives:	
1	To explain how organizational performance in terms of efficiency and effectiveness can be improved through BPR.
2	To introduce BPR as a change management tool.
3	To explore and master the fundamental principles of BPR.
4	To provide a practical framework and management techniques needed for implementation of BPR.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Introduction to business processes: Definition of business process, Dimension of business process, Common business processes in an organization, Definition of business process redesign, Definitions of various management - related terms, Overview of business process reengineering, Business processes improvement.</p> <p>Introduction to Business Process Reengineering (BPR): History of BPR, Basics of BPR, Definition of BPR, Emergence of BPR, The need for reengineering, Benefits of BPR, Role of leader & manager, Breakthrough reengineering model, BPR guiding principles, Business process reengineering & performance improvement, Key targets of BPR, Myths about BPR , What reengineering Isn't , Difference between BPR and TQM, BPR and Process Simplification, BPR and Continuous Improvement.</p>	6 + 1
2	<p>BPR in Manufacturing Industry: Introduction, Enablers of BPR in manufacturing – Agile Manufacturing, Lean Manufacturing, JIT, Collaborative Manufacturing, Intelligent Manufacturing, Production Planning, Product design & development.</p>	4 + 1
3	<p>BPR & Information Technology: Introduction, Relationship between BPR & Information Technology, Role of Information Technology in reengineering, Role of IT in BPR (with practical examples), Criticality of IT in business process, BPR tools & techniques, Enablers of process reengineering, Tools to support BPR, Future role of IT in reengineering.</p>	4 + 1
4	<p>BPR implementation methodology: Reasons of implementation of BPR, Necessary attributes, BPR team characteristics, Key concepts of BPR, BPR methodology, Different phases of BPR, BPR model, BPR methodology selection guidelines, Common steps to be taken for BPR implementation, Different business process reengineering methodologies, Comparison of various business process reengineering methodologies, Consolidated BPR implementation methodologies, Steps of process reengineering, Organizational redesign using BPR, Impact of BPR on organizational performance, Performance measures of BPR, Business process reengineering project management, Reengineering recommendations, Threads of BPR in various phases</p>	6 + 1

5	<p>Success factors of BPR: Reengineering success factors, Critical success factors of BPR, Reasons for BPR project failure & success, Reengineering drives cause many changes</p> <p>Managing barriers to business process reengineering success: Potential project implementation success, Risks associated with business process reengineering projects, Business process reengineering implementation barriers, Areas generating barriers to business process reengineering, Root cause to Information Technology barriers, Some root causes of internal individual resistance, A framework for barrier management</p>	5 + 1
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Learning Resources:		
1	Text Books	Business Process Reengineering by Radhakrishnan, Balasubramanian, PHI, Eastern Economy Edition, 2008. Business Process Reengineering by Jayaraman, Ganesh Natrajan and Rangaramanujan, TMGH.
2	Reference Books	Business Process Reengineering and Change Management by Dey, Biztantra.
3	Supplementary Reading Material	Practical Business re-engineering by Obolensky, Kogan Page.
4	Websites	http://www.youtube.com/watch?v=2j2lcDWQk7A
5	Journals	Productivity and Performance Effects of BusinessProcessReengineering: A Firm-Level Analysis, Altinkemer, Kemal; Ozcelik, Yasin; Ozdemir, Zafer D. Journal of Management Information Systems, Spring2011, Vol. 27 Issue 4 BusinessProcessReengineering in the Public Sector: The Case of the Housing Development Board in Singapore, Thong, James Y. L.; Yap, Chee-Sing; Seah, Kin-Lee. Journal of Management Information Systems, Summer2000, Vol. 17 Issue 1 BusinessProcessReengineeringManagement Services, Spring 2010, Vol. 54 Issue 1 A Wider View of BusinessProcessReengineering, Grant, Delvin. Communications of the ACM, Feb2002, Vol. 45 Issue 2

Semester	IV	Specialization	Operations Management
Course Code	408OPE	Type	Subject - Elective
Course Title	Enterprise Resource Planning		

Course Objectives:	
1	To understand how a business works and how information systems fit into business operations.
2	To understand the cross functional integration aspects of a business.
3	To understand better managerial decision making through real time data integration and sharing.
4	To understand the host of underlying technological tools of ERP.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Understanding Enterprise Resource Planning: Concept of Enterprise , Overview of Business Functions and Business Processes, Integrated Management Information, Business Modeling, Evolution of ERP; ERP and related technologies; Myths about ERP; Importance of ERP; Value creation in organizations through ERP; Benefits of ERP; Risk of ERP - People Issues, Process Risks, Technological Risks, Implementation Issues, Operation & Maintenance Issues; Managing risk in ERP projects.	5 + 1
2	ERP & Related Technologies: Business Process Reengineering, Data Warehousing, Data Mining, OLAP, PLM, SCM, CRM, GIS, ERP Functional Modules , Integration of ERP, Supply Chain, CRM.	5 + 1
3	ERP Implementation: Technological, Operational, Business Reasons for ERP implementation , ERP implementation Life Cycle – Objectives - Phases - Reasons for failure; Implementation challenges; ERP transition strategies - Big Bang Strategy, Phased Implementation, Parallel Implementation, Process Line Transition Strategy, Hybrid Transition Strategy, Strategy Choice; Success and failure factors of an ERP implementation; ERP implementation costs; Organization and working of ERP implementation team.	5 + 1
4	ERP Operations and Future Trends: Operation and maintenance of the ERP system; Maximizing the ERP system; ERP and e-business; Integration of ERP, internet and www; Future of ERP.	5 + 1
5	ERP Systems Processes and Management Control: Sales and Marketing; Accounting and Finance; Production and Material Management; Human Resource Management, Overview of an ERP product.	5 + 1

Learning Resources:		
1	Text Books	Enterprise Resource Planning by Leon, Alexis , TMH Publication, 2 nd Edition Enterprise Resource Planning by Koul, Saroj, Galgotia Publishing, 2001. ERP Concepts and Practice by Garg, V. K. and Venket Krishna N. K., PHI Publication, 1997. ERP In Practice by Vaman Jagan, TMGH
2	Reference Books	Enterprise Resource Planning by Sumner, Mary, Pearson Education, 2006. Enterprise Resource Planning by Jaiswal and Vanapalli, Macmillan Books.
3	Supplementary Reading Material	ERP Demystified by Leon, Alexis, TMH Publication, 2nd Edition, 2004.
4	Websites	https://www.sap.com
5	Journals	EnterpriseResource Planning (ERP) Systems and the Manufacturing-Marketing Interface: An Information-processing Theory View by Gattiker, T. F., International Journal of Production Research, 7/1/2007, Vol. 45 Issue 13 Critical Elements for a Successful Enterprise Resource Planning Implementation in Small-and Medium-sized Enterprises by Loh, T. C.; Koh, S. C. L., International Journal of Production Research, 9/1/2004, Vol. 42 Issue 17

Semester	IV	Specialization	Operations Management
Course Code	409OPE	Type	Subject - Elective
Course Title	Financial Perspectives in Operations Management		

Course Objectives:

1	To highlight the importance of cost management as a key to profitability and the key to successful Operations Management
2	To underline the role of cost management from a strategic perspective.
3	To teach the identification of key cost drivers and defined process of managing operational costs.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Cost Management: Cost management tools-life cycle costing, target costing, kaizen costing, JIT & theory of constraints, BPR and bench marking. Working Capital Management –Concept, Components, Scope, Practical applicability.	4 + 1
2	Activity Based Costing: Concept and basic knowledge, applicability, Limitations, Simple Numericals. Cost Concepts, behavior, type, allocation, apportionment and absorption along with nature, applicability and limitations of Job & Process Costing	4 + 1
3	Budgeting: Budgeting – nature, administration and effectiveness; budgeting cycle; activity-based budgeting; kaizen approach; ZBB; performance budgeting; human aspects of budgeting.	5 + 1
4	Capital Budgeting : The Capital Budgeting Concept & Process - An Overview, Generating Investment Project Proposals, Estimating Project, After Tax Incremental Operating Cash Flows, Capital Budgeting Techniques, Project Evaluation and Selection - Alternative Methods, Potential Difficulties ,Project Monitoring – Progress Reviews and Post - Completion Audits, Problem of Project Risk, Total Project Risk, Capital Rationing , Decision Tree.	7 + 1
5	Project Cost Estimate and Risk Analysis: Cost of project, Components of capital cost of a project, Project Risk Analysis, Project Organization. Project Evaluation and Audit: Sources of financing, Role of Financial Institutions in project financing, Data required for calculation of NPV, PI, IRR, BCR, NBCR, Project cost overruns and cost control, Phases of post audit, Type of post audit, Project closure.	5 + 1

Learning Resources:	
1	Text Books Financial Management by I.M. Pandey, Vikas Publications, 10 th Edition Financial Management by M.Y.Khan & P.K.Jain, TMGH., 5 th Edition Project Management by K. Nagarajan, New Age Publications, 2 nd Edition
2	Reference Books Financial Management by Rajiv Shrivastava & Anil Mishra, Oxford Publication, 2 nd Edition Corporate Financial Management by Arnold Glen, Pearson Publication
3	Supplementary Reading Material The Chartered Accountant Management Accountant
4	Websites www.icaai.org www.icwai.org www.moneycontrol.com
5	Journals Production & Inventory Management Journal of Operations Management International Journal of Operation and Quantitative Management Indian Journal of Advanced Operations Management International Journal of Operations & Production Management Manufacturing & Service Operations Management

Semester	IV	Specialization	Operations Management
Course Code	410OPE	Type	Subject - Elective
Course Title	Service Operations Management		

Course Objectives:	
1	To provide students with the concepts and tools necessary to effectively manage a service operation.
2	To discuss best practices of World-Class Service.

Syllabus:		
Unit Number	Contents	Number of Sessions
1	Services: Characteristics of Services, Importance of Service Sector, Classification framework, Service Delivery System – Process Flow Diagrams, Process Simulation,	4 + 1
2	Site Selection for Services: Types of Service Firms – Demand Sensitive Services, Delivered Services, Quasi-manufacturing Services, Site Selection for Demand Sensitive Services – Factor Rating, Regression, GIS, Gravity Model of Demand, Site Selection for Delivered Services – Expected Results, Mathematical Solution Methods for delivered services, Site Selection for Quasi-Manufacturing Services – Mixed Linear / Integer Programming for Location Selection	5 + 1
3	Yield Management: Capacity Strategies, Yield Management, Overbooking, Allocating Capacity – Static Methods, Nested Static Methods, Dynamic Methods. Pricing, Implementation issues – Alienating Customers, Customer Class Cheating, Employee Empowerment, Cost and Implementation Time.	5 + 1
4	Inventory Management in Services: Services versus Manufacturing Inventory, Set Up and Ordering Costs, Number of Products, Limited Shelf Space, Lost Sales versus Back Orders, Product Substitution, Demand Variance, Information Accuracy, The Newsvendor Model, Multiple Products and Shelf Space Limitations, Inventory Inaccuracy – Revenue Sharing, Markdown Money, Phantom Stockouts, Inventory Inaccuracy, Shrinkage.	6 + 1
5	Offshoring and Outsourcing: Outsourcing – Contract risk, Outsource Firm Risk and Pricing Risk, Competitive Advantage and Information Privacy Risk, Firm Specific Risks, Offshoring, Quantifying Offshoring, Offshoring and Competitive Capabilities – Cost, Non-cost Issues.	5 + 1

Learning Resources:		
1	Text Books	Successful Service Operations Management by Metters, King-Metters, Pulliman and Walton, Thomson India Edition, 2 nd Edition.
2	Reference Books	Service Operations Management - Improving Service delivery by Robert Johnston Graham Clark, Prentice Hall
3	Supplementary Reading Material	Service Operation –Itil, Version 3 ,David Cannon, David Wheeldon
4	Websites	http://www.referenceforbusiness.com/management/Sc-Str/Service-Operations.html
5	Journals	A perspective on service delivery by McManus, John; Howitt, Michael. Management Services, Winter2009, Vol. 53 Issue 4 Journal of Software Project Management and & Quality Assurance

Semester	IV	Specialization	Operations Management
Course Code	411OPE	Type	Subject - Elective
Course Title	Modeling Techniques for Operations		

Course Objectives:

1	To learn how to model typical Operations Domain Problems
2	To understand use of quantitative tools in solving typical Operations Domain Problems

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to Business Modeling: Meaning & process of modeling, Certainty & uncertainty in models, Importance of understanding data before modeling, Application of modeling to find Break-even point	2
2	Linear Programming: Formulation of LPP, Simplex method, Duality, Sensitivity Analysis, Goal Programming, Problems on Machine scheduling, Formulating & solving Product mix problem, Formulating & solving Labour planning problem. Integer Linear Programming: Concept, Job-sequencing model, Branch & Bound method, Problems based on Branch & Bound method.	8+2
3	Decision trees: Concept of decision making & decision trees; Application of decision trees in making manufacturing decisions like expansion of present plant, build new plant or sub-contract.	5+1
4	Replacement Models: Introduction; Failure of items; Application of Replacement models to Items that deteriorate, items with increasing running cost, items that fail completely, Group replacement policy, Recruitment and promotional problems, Equipment renewal problems.	6+1
5	Sequencing problems: Introduction, Problems involving n jobs- 2 machines, n jobs- 3 machines & n jobs-m machines; Comparison of priority sequencing rules.	4+1

Learning Resources:

1	Text Books	Operations Research- by Nita Shah, Ravi Gor, Hardik Soni- Prentice Hall India
2	Reference Books	Managerial Decision Modeling with Spreadsheets by Nagraj Balakrishnan, Barry Render, Ralph M. Stair Jr.- Pearson Introduction to Operations Research-by Billey E. Gillett- Tata Mc Graw Hill
3	Supplementary Reading Material	Operations Research- Hamdy A. Taha- Pearson Publication
4	Websites	www.orsi.in
5	Journals	International Journal of Operations and Quantitative Management

Semester	IV	Specialization	Operations Management
Course Code	412OPE	Type	Subject - Elective
Course Title	Business Process Management		

Course Objectives:

1	Students will be able to model processes for subsequent implementation in Business Process Management Systems.
2	Students will be able to discern between technologies for human-centric process automation and system-centric process automation.
3	Students will understand the difference between Business Processes and Business Rules, and be able to select an appropriate information system.
4	Students will know the different phases of the process management lifecycle, supporting technologies, and how to transition between the phases of the lifecycle
5	Students will understand the technical capabilities of Business Process Management Systems, how they relate to concepts such as SOA and EAI
6	Students will be able to develop an implementation and integration strategy for processes that leverages organizational and technical capabilities of an enterprise

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: Overview of the Process Management Lifecycle, Review of Process Modeling techniques. Process Design for Implementation: Analytical process model , Implementable process model – concept and comparison, Graphical models and their translation to XML, Components of Workflow Models From BPMN to XPDL.	5 + 1
2	Implementing Process Designs: Change Management - Process Implementation Alternatives: Manual Implementation, CSCW Systems, ERP Systems, Workflow & Business Process Management Systems, Process Outsourcing.	5 + 1
3	Automating Processes: Supporting processes with IS, components of a process-aware application, BPMS and Workflow , Systems Components and Architecture. Rules vs. Processes: Capturing decision-making activities, dealing with unstructured work, BPMS and BRMS, Integrating ECA rules with processes, Capturing Unstructured Processes. Managing the Run-Time: Ensuring efficient processes, Process Metrics, Business Activity Monitoring, Business Intelligence, Process Dashboards	5 + 1
4	Task and Resource Allocation: Organization models, Task allocation strategies, Mobile performers, External Participants. Standards for Business Process Management: WfMC Reference Model, Process design standards: BPMN, IDEF, Interchange standards: XPDL, BPEL, Integration standards: Wf-XML, WSCDL	5 + 1
5	Post-Execution Evaluation: How Business Intelligence based on Process Data, Process Mining. Business Process Management Maturity: BPM Maturity Models, BPM Centers of Excellence, Organization Structure of BPM Efforts. Process Simulation and Data Mining: Predictive Process Simulation, Data Mining based on Process Data, Integration of Process information into Strategy Maps.	5 + 1

Learning Resources:		
1	Text Books	Harmon, Paul: Business Process Change. A Guide for Business Managers and BPM and Six Sigma Professionals. 2nd Edition, Morgan Kaufmann, San Francisco. Managing Business Process Flows, 2nd edition, by Ravi Anupindi, et al., ISBN 0-13-067546-6, Pearson Prentice-Hall, 2006.
2	Reference Books	Hammer, Michael: The Process Audit. Harvard Business Review, April 2007, pp. 111-123. Khoshafian, S. Service-oriented Enterprises. Auerbach Publications, Taylor & Francis Group, Boca Raton, FL, 2007, pp. xxv, 438 p. Scheer, A.-W. Business process change management : ARIS in practice Springer, Berlin ; New York, 2003, pp. xiii, 290 p.
3	Supplementary Reading Material	Davis, R.: An Introduction to Business Process Modeling with the ARIS design platform: getting started with BPM, (1st ed.) Springer, New York, 2007. Dumas, M.; van der Aalst, W.M.P. and A.H.M. ter Hofstede (eds.): Process-Aware Information Systems. Bridging People and Software Through Process Technology, John Wiley & Sons, Inc., Hoboken, NJ, 2005. Jeston, John; Nelis, Johan: Business Process Management: Practical Guidelines to Successful Implementations. Butterworth-Heinemann, 2006, pp. 464, ISBN 0750669217 van der Aalst, W.M.P., and van Hee, K. Workflow Management. Models, Methods, and Systems MIT Press, Cambridge, MA, USA, 2002.
4	Websites	BPTrends.org
5	Journals	International Journal of Business Process Management Leymann, F., and Altenhuber, W. "Managing business processes as an information resource," IBM Systems Journal (33:2) 1994, pp. 326-348.

Semester	IV	Specialization	Operations Management
Course Code	413OPE	Type	Subject - Elective
Course Title	Challenges and Opportunities in Operations Management		

Course Objectives:

1	To make the student understand the ways of managing risk in Operations Management
2	To introduce various Environmental, Ethical and Technological issues in Operations Management
3	To introduce Global Reporting Initiatives, SA 8001, CSR, CDM, CT concept

Syllabus:

Unit Number	Contents	Number of Sessions
1	Managing Risk in Operations: Concepts and framework of Risk Management, COSO enterprise risk management, Risk standard AS/NZ 4360, M-o-R: Management of Risk Framework, Risk in the key decision areas of operations: Inventory management, Information technology, Process Technology, Operating planning and capacity management, Maintenance and servicing, Risk in service operations, Occupational Health and Safety, Environmental risk, Operations and corporate risk	5 + 1
2	Overview of Technological, Ethical and Environmental issues: Global challenges, Defining Technological options for the achieving Goals to combat the risks based on SWOT, Concept of Business ethics & CSR, Environmental – Introduction to GHG trading, Defining control against budgeting for identified impacts & risks for Quality, environment, safety, & global trading	5 + 1
3	Global Reporting: Business advantage with global reporting, Guidelines G 3 for sustainability, Study of any published report like Siemens, Social accountability aspect in Business across the borders, Case study in Indian industry for CSR Kyoto Protocol: Basic Features, Why Kyoto Protocol Failed, Limitations and aspect of Kyoto Protocol, Introduction to Clean Technology, Clean development mechanism, Government & statutory authorities and their role in promoting Sustainability	5 + 1
4	Sustainability in Operations: What is sustainability? Development of the concept of sustainability, Accepted definitions, What make sustainable practices successful, What is a sustainable practice, Quality and Excellence, Strategic connection, Business Case for sustainability, Building sustainability – the role of operations function, New capabilities of operations management to support sustainability,	5 + 1
5	Social Accountability: SA 8001, Considerations in identifying & mitigating child labour, Considerations in investigating un fair wages complaint, Considerations in investigating Discrimination related complaints, Consideration for recording and monitoring home workers and/ time logging for piece rate.	5 + 1

Learning Resources:

1	Text Books	Operations Management: An Integrated Approach by Danny Samson and Prakash Singh, Cambridge University Press. Ethics and Corporate Social Responsibility: Why Giants Fall by Ronald R. Sims
2	Reference Books	The Kyoto Protocol: International Climate Policy for the 21st Century by Sebastian Oberthür and Hermann E. Ott The Clean Tech Revolution: Discover the Top Trends, Technologies, and Companies to Watch by Ron Pernick and Clint Wilder
3	Supplementary Reading Material	Standard SA 8001:2002 & Interpretation Guidelines SA 8002 Power to the People: How the Coming Energy Revolution Will Transform an Industry, Change Our Lives, and Maybe Even Save the Planet by Vijay V. Vaitheeswaran
4	Websites	https://www.globalreporting.org/resourcelibrary/G3-Guidelines-Incl-Technical-Protocol.pdf http://www.siemens.com/sustainability/report/09/en/indices/global_reporting_initiative.htm
5	Journals	Should Sustainability Reporting Be Integrated? By Verschoor, Curtis C., Strategic Finance, Dec2011, Vol. 93 Issue 6 Go Green, Save Green by Mc Collum, T., Internal Auditor, Aug2009, Vol. 66 Issue 4

Semester	IV	Specialization	Operations Management
Course Code	414OPE	Type	Subject - Elective
Course Title	Lean Manufacturing		

Course Objectives:

1	To provide the concepts of Lean Manufacturing.
2	To give a hands on – How To – series of steps in Lean Manufacturing Implementation.
3	To highlight the role of company culture in transformation to Lean.

Syllabus:

Unit Number	Contents	Number of Sessions
1	History and Modern Applications of Lean Manufacturing: Popularity of MRP systems and their impact on organizations, Pre-computer Inventory Management tools, Rethinking the MRP Model, The search for Holy Grail of Manufacturing, Lean Manufacturing Model, Kanban Methodology, Sequencing production one piece at a time on the Lean Line, The benefits of embracing lean methodologies for manufacturing, Lean Manufacturing Challenges to the MRP paradigm, The continuous evolution to Lean Manufacturing, The Internet and E-commerce technologies.	5 + 1
2	Understanding Products, Processes and Demand: Determining the scope of initial Lean Manufacturing Implementation Area, Selecting parent parts for the lean line, Establishing the capacity to meet the demand volume of lean implementation area, Sources for determining demand, Documenting the Process flow and establishing mixed product families, Factors impacting throughput volume, Identifying process Demand Levels and Establishing Takt, Numerators and Denominators of Takt time, Documenting process Work elements and quality criteria, Nonvalue added activity and quality considerations, summing the total time of the process.	5 + 1
3	Line Layout and Work Station Identification with Process Linking and Balancing: The consequences of imbalance, The Lean approach to Achieving Balance, Calculating resource requirements, Defining Resources, The physical layout of resources, Assigning tasks for each workstation, the in-process Kanban Signalling methodology, Discipline for maintaining workstation balance, Designing 5S into the line design.	5 + 1
4	Kanban Strategies: The in-process Kanban, The Single Card Kanban System, The Multiple Card Kanban System, Managing inventory with the Kanban System: The advantages & disadvantages of Kanban System, Kanban manager job responsibilities.	5 + 1
5	Lean Implementation Mile Stones: Software requirements for Lean manufacturing methodologies, Commitment to change, Transformation process to Lean manufacturing, Initialization and Project Start-up, Understanding Products, Processes and Materials, Final Check, Line Start-up, Internalize. Organizational impact of Lean Manufacturing, Managing the Lean Manufacturing Line: Managing Line Output to Match Customer Demand, Establishing Customer Response policy, Suboptimizing the Lean line to meet daily rate of demand, flexible operators, Rewarding for Flexibility, Rewarding for Linear Performance, Resistance to change.	5 + 1

Learning Resources:		
1	Text Books	Lean Manufacturing Implementation by Dennis P Hobbs, Cengage Learning Co-published with APICS. Simplified Lean Manufacture – Elements, Rules & Implementation by N Gopalkrishnan, PHI.
2	Reference Books	Lean Manufacturing That Works by Bill Carreira, PHI, Eastern Economy Edition.
3	Supplementary Reading Material	Global Management Solutions Demystified by Dinesh Sheth and Subhash Rastogi, Thomson Learning Asia Lean Management – Concepts and Industry Perspectives by Mrudulla, ICFAI Books.
4	Websites	http://www.lean.org/
5	Journals	Evaluation of Value Stream Mapping in manufacturing system redesign by Serrano, Ibon; Ochoa, Carlos; Castro, Rodolfo De., International Journal of Production Research, Aug2008, Vol. 46 Issue 16 ERP Enabled Lean Six Sigma: A Holistic Approach for Competitive Manufacturing by Nauhria, Yugal; Wadhwa, S.; Pandey, Sunil., Global Journal of Flexible Systems Management, Jul-Sep2009, Vol. 10 Issue 3 Effect of buffer capacity and sequencing rules on single-card kanban system performance by Berkley, B.J., International Journal of Production Research, Dec1993, Vol. 31 Issue 12 Empowering Kanban through TPS - principles - An empirical analysis of the Toyota Production System by Thun, Jorn-Henrik; Druke, Martin; Grubner, Andre., International Journal of Production Research, Dec2010, Vol. 48 Issue 23

MBA SYLLABUS: SEMESTER IV
HUMAN RESOURCE MANAGEMENT - SPECIALIZATION

University of Pune

Semester	IV	Specialization	HRM
Course Code	403HR	Type	Subject Core
Course Title	Industrial Relations		

Course Objectives:

1	Give students insight into the IR scenario in India
2	Make students understand important laws governing IR
3	Create understanding about role of Govt., society and trade union in IR

Syllabus:

Unit Number	Contents	Number of Sessions
1	Understanding IR: Concept, Philosophy of IR, Evolution of IR, Indian perspective, Parties to IR, Employers' organizations, Trade unions, Role of Government, Role of society Approaches to IR: The Dunlop's Approach, The Social Action Approach, The Human Relations Approach, The Gandhian Approach, Theoretical foundation and legal framework of IR in India	6 + 2
2	The Industrial Disputes Act 1947: Sections # 2 to 19 Provisions under Chapter V, VA, VC and chapter VI, VII.	6 + 2
3	Trade Union Act 1926 : Section # 2, Chapter II, III and chapter V, The Maharashtra Recognition of Trade Unions and prevention of unfair labour practices Act 71, Section# 3 and the provisions under chapter II, III, IV, V, VI, VII, VIII, X	8 + 2
4	Industrial Employment (Standing Orders) Act 1946: Section # 2,3,5,6,7,9,10,11, 12,13,14 The Contract Labour (Regulation and Abolition) Act 1970 Section# 2 and all provisions under Chapter III, IV, V, VI, and VII	6 + 2
5	IR Initiative: Worker's Participation in Management, Concept, evolution, implementation, Challenges. Collective Bargaining, Concept, evolution and implementation. Study of best practices in IR : The students and faculty to identify organizations in the area and study their IR practices.	9 + 2

Learning Resources:		
1	Text Books	Employee Relations Management by P.N. Singh, Neeraj Kumar, Pearson Publication
2	Reference Books	Industrial Relations, Trade Unions & Labour Legislation by P.R.N.Sinha, Indu Bala Sinha, Pearson Publication IR- Emerging Paradigms by B.D.Singh, Excel Books IR in India Shifting Paradigms by Ratna Sen, Macmillan India
3	Supplementary Reading Material	Industrial Relations by Arun Monappa Tata McGraw Hill Edition Personnel Management and Industrial Relations by R.S.Davar Vikas Publishing Industrial Relations by A.M.Sarma Himalaya Publishing House APS Labour Digest
4	Websites	www.india-laws.com www.Citehr.com www.ilo.org www.hrmguide.net www.nipm.in
5	Journals	Personnel Today Industrial Journal of Industrial Relations Indian Journal of Industrial Relations

Semester	IV	Specialization	HRM
Course Code	404HR	Type	Subject Core
Course Title	Strategic Human Resource Management		

Course Objectives:	
1	To make students understand HR implications of organizational strategies
2	Understand the various terms used to define strategy & its process
3	Understand HR strategies in Indian & global perspective

Syllabus:

Unit Number	Contents	Number of Sessions
1	Strategic Human Resource Management: Introduction, HRM Defined/SHRM Defined, Strategic HRM- Definition , Meaning of SHRM, Aims, approaches, challenges	3 + 1
2	HR Strategies: Definition, Types of HR strategies, criteria for an effective HR strategy Formulation of HR Strategies, conducting a strategic review, implementing HR strategies Impact on Organizational Performance, strategic role of top management, strategic role of line management	7 + 2
3	Talent Management Career Planning and Succession Planning: Evolution of careers, career planning perspectives organization-centered career planning, Individual-centered career planning Succession Planning: Definition, Elements of Succession planning, Relation between career planning and succession planning, challenges of succession planning Competency and Potential Development: What are competencies, How do competencies differ from skills and knowledge, Integrated HR practices through competency development, benefits from competency-based on HR practices, Desired outcomes for organizations, competency based HR practices : outcomes for employees, developing a skill matrix Retention strategies	7 + 2
4	Strategies for Improving organizational effectiveness Strategies for improving organizational effectiveness Strategies of organizational transformations-Cross border Mergers & Acquisitions Strategies for culture management, quality in strategies Strategies for learning organization Employee engagement strategy	10 + 3
5	Global Dimensions HR strategy in International Context, converting global presence into global competitive advantage Developing cross cultural sensitivity Training & development of International staff Compensation issues Performance management issues	8 + 2

Learning Resources:		
1	Text Books	Strategic Human Resource Management by Jeffrey Mello, Thomson South Western
2	Reference Books	International HRM by Peter Dowling, Denice Welch, Thomson Learning, 4 th Edition. HRM in Global Scenario by S.K. Bhatia, Deep & Deep Publications Pvt. Ltd, 2010
3	Supplementary Reading Material	Creating Wealth through Strategic HR & Entrepreneurship Gopalkrishnan by Upinder Dhar, Excel Books
4	Websites	www.shrmindia.org www.shrm.org www.peoplematters.com
5	Journals	Journal of Strategic Human Resource Management International Journal of Human Resource Management Human Resource Management Journal Human Resource Management

Semester	IV	Specialization	HRM
Course Code	405HR	Type	Subject - Elective
Course Title	Organizational Design & Development		

Course Objectives:

1	To develop an understanding of the nature, functioning and design of organization
2	Be able to understand the theory and practice relating to the processes of organization development and change
3	Develop insight and competence in diagnostic and intervention processes and skills for initiating and facilitating organizational processes and change in organizations

Syllabus:

Unit Number	Contents	Number of Sessions
1	Organizations and Organizational Theory: Definition, Prospective Dimensions, Strategy, Organization design & effectiveness	3 + 1
2	Organizational Purpose & Structural Design: Basic challenges of organizational Design - Fundamentals of Organizational structure, Internal Design Elements. Organization size & life cycle	7 + 1
3	Organizational Culture & Ethics : Innovation & change, Decision making processes & organizational learning	5 + 1
4	Managing Innovation & Change: Process of OD, Individual and Interpersonal Interventions, Team / Group Interventions, Intergroup Interventions, Techno structural Interventions, Strategic Change	7 + 1
5	Organizational Transformation - Desk Research: Students need to study organizational culture & design of 2 organizations each & present a report on the same.	3 + 1

Learning Resources:

1	Text Books	Organizational Development & Transformation by French, Bell, Zawacki- TMGH Organization theory & Design by Richard L. Daft, Thomson Press.
2	Reference Books	Organization Development & Change by Cummings & Worely Cengage Learning's India Ltd, 8 th Edition. Managing Organizational Change by Nilkant & Ramnarayan, Response Books Organization Change & Development by Kavita Singh, Excel Books The Oxford Handbook of Organizational Theory by Tsoukas & Knudsen, Oxford University Press
3	Supplementary Reading Material	Creating Performing Organization by Pattanayak & Gupta, Response Books Organizational Effectiveness & Change Management by Kondalkar, PHI learning Organizational Theory Text & Cases by Garetn Jones, Pearson Publishing
4	Websites	www.codhyd.org/ www.humancapitalonline.com www.shrmindia.org
5	Journals	International Journal of Human Resource Management Human Resource Management Journal Human Resource Management

Semester	IV	Specialization	HRM
Course Code	406HR	Type	Subject - Elective
Course Title	Global HR		

Course Objectives:

1	To give exposure to the students to international HR
2	To make students understand various initiatives in global HR
3	To make students understand various issues in global HR

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: Defining international HR, difference between domestic and international HR, Variables determining difference between domestic and international HR, The path to global status, Talent management, International business ethics and HRM	4 + 1
2	Managing and supporting international assignments: Linking international assignments with organizational strategy, Staffing for international assignments, Issues in staff selection, selection criterion, The role of expatriate, the role of non-expatriate, dual career couples, are female expatriate different? role of the corporate HR function.	6 + 1
3	International HR: Importance of pre departure training, programs, the effectiveness of pre departure training, developing staff through international assignments. Objectives of international compensation, key components of international compensation program, approaches to international compensation. Performance management in multinational, PM of international employees, Appraisal of international employees.	6 + 1
4	Key issues in international HR : Trade unions and international HR , the response of trade unions to multi nationals, the issue of social dumping, the impact of digital economy	4 + 1
5	Virtual Organization study: Field Study/ Desk Research Students to be divided in a group of 5 each. Each group to identify two organizations having presence in other country/countries and study their HR practices in the light of the above topics. This may be desk research or field visit. The groups will give hard copy of the work and also presentation.	5 + 1

Learning Resources:		
1	Text Books	International Human Resource Management by Peter j Dowling, Deice E Welch, 4 th Edition.
2	Reference Books	International Human Resource Management by Hilary Harris, Chris Brewster and Paul Sparrow, VMP Publishers and Distributors International Human Resource Management by K Aswathappa and Sadhna Dash , TMGH
3	Supplementary Reading Material	International HRM- A cross cultural approach, Terence Jackson, SAGE publication.
4	Websites	http://www.cipd.co.uk/global/ www.shrm.org www.hrmguide.net
5	Journals	International Journal of Human Resource Management Human Resource Management Journal Human Resource Management

Semester	IV	Specialization	HRM
Course Code	407HR	Type	Subject - Elective
Course Title	Employee Reward Management		

Course Objectives:	
1	To appraise students with reward management system practiced in organizations
2	To make students understand the process of setting reward management system
3	To give students exposure to the reward management practices followed various organizations

Syllabus:		
Unit Number	Contents	Number of Sessions
1	Reward Management: Definition, Aims of reward management, achieving the aims, reward system, elements of reward system, factors affecting reward system, policy and practice, impact of environment, internal & external	4 + 1
2	Grade and pay structures: Types of grades and pay structures, Developing grade and pay structures, individual pay, team pay, paying for organizational performance	6 + 1
3	Reward management for special groups: Rewarding directors and senior executives, international reward, rewarding sales and customer service staff, rewarding knowledge workers, shop floor pay	4 + 1
4	Union role in Reward Management: Impact of Trade Union on reward determination, unions and alternative reward system, Govt. and legal issues in reward system, reward system in India, National wage policy	5 + 1
5	Desk Research/Field Work: Faculty to invite minimum 4 experts from manufacturing/service/NGO/Govt. Organizations to expose the students to reward management system practiced by those organizations	6 + 1

Learning Resources:		
1	Text Books	Dynamics of Personnel Management by Prof M N Rudrabasavraj Himalaya publishing
2	Reference Books	A Handbook of Employee Reward Management and Practice by Michel Armstrong Personnel and Human Resource Management by George T Milkovich and John w Boudream, Published by All India Traveller Bookseller
3	Supplementary Reading Material	Personnel Management Text and Cases by C B Mamoria and S V Gankar, Himalaya publishing
4	Websites	www.cipd.co.uk www.payscale.com www.livesalary.com.au/
5	Journals	International Journal of Human Resource Management Human Resource Management Journal Human Resource Management

Semester	IV	Specialization	HRM
Course Code	408HR	Type	Subject - Elective
Course Title	Change Management		

Course Objectives:

1	To make students understand meaning of change and need for organizational Change.
2	To appraise students with the change management process

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: Definition of change, how people experience change?, Seven phases of change, shock and surprise, denial and refusal, rational Understanding, emotional acceptance, exercising and learning, Rationalization, integration.	5 + 1
2	Organizational Change: Definition, Change: a managerial necessity, Areas of change, management of environment and technology, change and the manager, managing change from gender perspective.	5 + 1
3	Model of Change Management: The organizational development model, people management, Organizational politics and change, the learning organization.	5 + 1
4	Leading Change: Leaders, heroes and Chief Executive officers. Student to study minimum two case studies	5 + 1
5	Executing Change: Challenges of execution, Why does change Succeed / Fail? Minimum two case studies one each of successful execution and one of failure	5 + 1

Learning Resources:

1	Text Books	Change Management by Andrew Pettigrew and Richard Whipp Infinity Books
2	Reference Books	Change and Knowledge Management by B Janakiram, P V Ravendra, Shubha Murlidhar Published by biztantra Change Management by Robert a Paton and James McCalman, Sage Publication, 3 rd Edition
3	Supplementary Reading Material	Change Management by V Nilkant, S Ramnarayan , Sage publication Change: How to adapt and transform the business : Editors N Anand and Nigel Nicholson Published by Biztantra.
4	Websites	www.changedynamix.com http://www.oursouthwest.com/SusBus/mggchange.html
5	Journals	Journal of Organizational Change Management International Journal of Human Resource Management Human Resource Management Journal Human Resource Management

Semester	IV	Specialization	HRM
Course Code	409HR	Type	Subject - Elective
Course Title	Conflict & Negotiation Management		

Course Objectives:

1	To develop an understanding of the nature and strategies of negotiation.
2	To understand conflict and strategies to resolve the conflict.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Fundamentals of Negotiation: Nature of negotiation, Dimensions of Negotiation, Structure , norms & values, Strategy & planning	5 + 1
2	Negotiation Processes: Perception & Preparation, Communication & Influence, Ethics in negotiation, Agreement, Role Play (activity)	6 +1
3	Conflict Management: Definition, Models of conflict (Process & Structural), Sources of conflict, Relationship between conflict & performance in team, Advantages & Disadvantages of Conflict	4 + 1
4	Managing Conflict: Individual difference, Personalities & abilities, Interpersonal conflict, Group conflict, Organizational conflict, Dealing with difficult subordinates & boss, Technique to resolve team conflict, Strategies to resolve organizational conflict, Role Play (activity)	7 + 1
5	Desk research: Students to study 4 case studies related to negotiation , third party conflict resolution(ADR) & prepare presentation on the same	3 + 1

Learning Resources:

1	Text Books	Negotiation by Lewicki, Saunders, Barry, TMGH Corporate Conflict Management - concepts & skills by Eirene Rout, Nelson Omika, PHI. Negotiation- Communication for diverse settings- Michael Spangle, Sage Publication.
2	Reference Books	Negotiation, Harvard Business Essentials, Harvard Business School Press How to negotiate effectively, David Oliver, The Sunday Times. Conflict Resolution Techniques by Subbulakshmi, ICFAI University press Conflict Management, Barbara Corvette, Pearson Education
3	Supplementary Reading Material	How to be a problem solver, M Stevens, The Industrial society, Kogan Page India. A Handbook of Human Relations, M.H.Shookla, Macmillan India Ltd.
4	Websites	http://www.religioustolerance.org/int_rel24.htm http://changingminds.org/links/links_negotiation.htm http://www.negotiatingedge.com/links.shtml http://www.mindtools.com/pages/article/newLDR_81.htm http://www.helpguide.org/mental/eq8_conflict_resolution.htm
5	Journals	International Journal of Human Resource Management Human Resource Management Journal Human Resource Management

Semester	IV	Specialization	HRM
Course Code	410HR	Type	Subject - Elective
Course Title	LAB in CSR		

Course Objectives:

1	To help students understand & design CSR initiatives
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Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction of CSR: Aims & Objectives, Importance of CSR	10
2	CSR initiatives: Adopted by organization in Indian Context as well as Global context	10
3	Desk Research/ Field Study: Faculty to divide students in a group of 6 each. Groups will visit various industries in nearby area, understand various CSR activities initiated by them & present as well as submit the report on same.	10

Learning Resources:

1	Text Books	CSR Strategies: Corporate Social Responsibility for a Competitive Edge in Emerging Markets by Sri Urip, John Wiley & Sons, 2010
2	Reference Books	Corporate Social Responsibility And International Development: Is Business the Solution? By Michael Hopkins, Earthscan, 2007
3	Supplementary Reading Material	Corporate Social Responsibility: Doing the Most Good for Your Company and Your Cause by Philip Kotler, Wiley
4	Websites	Making Sense of Corporate Social Responsibility. Sathish, Ramya. "Corporate Social Responsibility in India - Putting Social-Economic Development on a Fast Track" Corporate Social and Environmental Responsibility in India - Assessing the UN Global Compact's Role by Chahoud, Dr. Tatjana; Johannes Emmerling, Dorothea Kolb, Iris Kubina, Gordon Repinski, Catarina Schläger, 2007.
5	Journals	International Journal of Human Resource Management Human Resource Management Journal Human Resource Management

Semester	IV	Specialization	HRM
Course Code	411HR	Type	Subject - Elective
Course Title	Lab in Industrial Relations		

Course Objectives:

1	To expose students to drafting of various notice/ memos/ show cause etc.
2	To expose students to the working of Labour courts

Syllabus:

Unit Number	Contents	Number of Sessions
1	Study & Preparation of notice of strike & lockout (2 minimum each).	5 + 1
2	Study & drafting show cause notice (minimum 2)	5 + 1
3	Handling & drafting misconduct procedure	5 + 1
4	Inviting Trade Union leader to understand issues & functioning of Trade unions	5 + 1
5	Visit to Labour court & Industrial Tribunal	5 + 1

Learning Resources:

1	Text Books	Employee Relations Management by P.N. Singh, Neeraj Kumar, Pearson Publication
2	Reference Books	Industrial Relations, Trade Unions & Labour Legislation by P.R.N.Sinha, Indu Bala Sinha, Pearson Publication IR- Emerging Paradigms by B.D.Singh, Excel Books IR in India Shifting Paradigms by Ratna Sen, Macmillan India
3	Supplementary Reading Material	Industrial Relations by Arun Monappa, TMGH Personnel Management and Industrial Relations by R.S.Davar, Vikas Publishing Industrial Relations by A.M.Sarma, Himalaya Publishing House APS Labour Digest
4	Websites	www.india-laws.com www.ilo.org www.hrmguide.net www.nipm.in
5	Journals	Personnel Today Industrial Journal of Industrial Relations Indian Journal of Industrial Relations

Semester	IV	Specialization	HRM
Course Code	412HR	Type	Subject - Elective
Course Title	Lab in Legal compliances		

Course Objectives:

1	To equip students with various compliances the HR head has to give under different Acts
2	To learn drafting skills of these compliances

Syllabus:

Unit Number	Contents	Number of Sessions
1	The students are expected to study and draft the following compliances 1) Monthly return under The Factories Act 2) Annual return under the Factories Act 3) MPCB Act compliance and return 4) Payment of wages return 5) Minimum Wages return 6) Accident details form no 16 and 14 7) Factory License renewal 8) PF payment and return 9) Payment of Bonus return 10) ESIC Payment and return	25
2	Presentation on the learning by students	05

Learning Resources:

1	Text Books	Bare Acts Labour Law by S.P.Jain Labour Law by Malik
2	Reference Books	Introduction to Labour & Industrial Laws by Avatar Singh, LexisNexis Labour & Industrial Laws by S.N.Mishra, Central law publication Labour Laws by S.D. Geet, Nirali Prakashan Elements of Mercantile Law by N.D.Kapoor, Sultan Chand
3	Supplementary Reading Material	APS Labor Digest
4	Websites	www.india-laws.com www.lawinfo.com www.lawsinindia.com www.lawforyou.com http://www.vakilno1.com
5	Journals	Personnel Today International Labour Review Industrial Journal of Industrial Relations Indian Journal of Industrial Relations

Semester	IV	Specialization	HRM
Course Code	413HR	Type	Subject - Elective
Course Title	Lab in Mentoring and Coaching		

Course Objectives:

1	To apprise students with role of Mentor, Coach & Counselor
2	To demonstrate elements of Mentoring, Coaching & Counseling vis-à-vis industry
3	To get clarity on how to consciously influence themselves and others so as to create productive behaviors that lead to optimal personal impact.

Syllabus:

Unit Number	Contents	Number of Sessions
1	The Manager as a Coach and Mentor: What is coaching & Mentoring? Why & how it is so important? Making the transition from Manager to Coach/ Mentor	4 + 1
2	Putting Coaching & Mentoring to Work: Dos and don'ts of Coaching & Mentoring, Putting it to work vis-à-vis Organizational Context, Selecting & Allotting Coaches and Mentors, Records, Feedback & Follow-up	4 + 1
3	What is Counseling? What is Counseling? Why & how it is so important, attending to? Performance Counseling, Personal and Family Wellbeing, Work-life balance to health problems	5 + 1
4	Dos and Don'ts of Counseling : Understanding Psychometrics, Helping the individual to understand and help himself , Understand the situations and look at them with a new perspective and positive outlook, Helping in better decision making, Alternate solutions to problems, Coping with the situation and the stress.	5 + 1
5	Field Study/ Desk Research: Student along with faculty are expected to study Mentoring, Coaching & Counseling practiced by the organizations in the area & prepare a report.	7 + 1

Learning Resources:

1	Text Books	Coaching & Mentoring by Jane Renton, Profile Books Ltd.
2	Reference Books	Making Mentoring Happen by Kathy Lace, Business & Professional Publishing Pvt. Ltd. Coaching and Mentoring, Harvard Business School Press Coaching, Counseling & Mentoring by Florence M. Stone, AMACOM, 1601 Broadway, New York.
3	Supplementary Reading Material	Improve Your Coaching & Training Skills by Patrick Forsyth, Kogan Page India Pvt. Ltd.
4	Websites	www.coachingnetwork.org.uk http://www.tobincls.com/mentoring.htm http://www.coachingandmentoring.com/Articles/mentoring.html
5	Journals	International Journal of Human Resource Management Human Resource Management Journal Human Resource Management

Semester	IV	Specialization	HRM
Course Code	414HR	Type	Subject - Elective
Course Title	Best Practices in HR		

Course Objectives:

1	To expose students to organizations to know best HR Practices
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Syllabus:

Unit Number	Contents	Number of Sessions
1	Faculty & students to develop desk research on Best HR practices like CSR Recruitment Retention Training Transfers Appraisals Employee engagement Compensation Employee participation By organizations like Infosys Wipro TCS TATA Motors IBM TVS Reliance	10
2	Invite HR professionals to share best HR practices & experience	6
3	Visit minimum 2 organizations in the area to know their HR Practices	14

Learning Resources:

1	Text Books	HRM Practices by K B S Kumar, ICFAI university press, I edition
2	Reference Books	HRM practices in Industry by Kaila, Ravishankar, Himalaya Publishing House, I edition
3	Supplementary Reading Material	Case Studies on HRD Practices by M.K. Patel, Anmol Publications Websites of the organizations mentioned above Annual Reports of the organizations mentioned above Newsletter of the organizations mentioned above
4	Websites	www.business-standard.com www.thehrpractice.in www.hrmguide.in www.shrm.org
5	Journals	International Journal of Human Resource Management Human Resource Management Journal Human Resource Management

Semester	IV	Specialization	HRM
Course Code	415HR	Type	Subject - Elective
Course Title	Designing HR policies		

Course Objectives:	
1	To equip students with pros and cons of HR Policies
2	To study statutory & non statutory requirements
3	To acquaint students with role & responsibilities of HR professionals

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Introduction on the Content and Use of the Manual</p> <p>Corporate Profile (History, Ownership, Products/Services/Clientele) Corporate Vision and Mission Statement Corporate Values Corporate Philosophy and Beliefs on Human Resource Corporate Table of Organization Manpower Planning: Procedure and Considerations HR Requirements Assessment Worksheet Position Analysis/Job Descriptions</p>	5
2	<p>Recruitment and Selection : Policies, Procedures (Internal placement, Direct Hire, Outsource)</p> <p>Forms (Application, Request for Recruitment, Request for Staffing) Test (IQ, Technical/Functional, Personality/Behavioral, Managerial) Interview Guides/Interview Sheets Background/Reference Check (Letters, Checklist) Verifying Credentials Employee Orientation and Induction: Procedure, Accountability and Content Guidelines Orientation Slides, Orientation Letter Employment Contracts / Bonds Types of Employment: Definition and Considerations Contract Forms, Procedures in Administering Contracts Personnel Movements Promotion, Transfer, Demotion Wage, Salary and Benefits Administration Policy on Compensation Compensation Package Job Classification, Salary Structure Rules on Adjustments Rules on Merit Increases</p>	6

3	Employee Benefits Leave Credits: Types, Procedures of Availing Leaves, Forms and Recording & Conversion of Unused Leaves Monetary and Tangible Benefits Compliance to Government Regulated Benefits Employee Attendance and Absences Policy Time Management Personal Leave of Absences Travel and Accommodation Modes of Transportation Accommodation Issues Travelling Formats(Requisition and Reimbursement) Code of Discipline Dress Code Personal Communications Gifts and Gratuity Policy on Discipline Rules Pertaining to : Attendance Adherence to Norms and Procedures Customer/Public Conduct Use of Company Resources/Properties Safety and Security Behaviors Defining the Corporate Policies Table of Offenses Procedures on Disciplinary Action Disciplinary Written Warning Format Disciplinary Action Report	6
4	Employee Relations and Grievance Handling Corporate Responsibility and Supervisory Responsibility Definition of ER Programs and Activities Grievance Handling Procedures Employee Records Management Employee Profile and History Employee Data Change Transfer/Accountability of Employee Records and Information Training and Development Corporate Policy on Training Training Accountability Procedures in Availing Training (Related Forms) Training Contract: Formal and Informal Outsourced Training: Procedures and Considerations Training Evaluation: Requirements and Forms Employee Training Record	5
5	Field study/ Desk Research Student along with faculty are expected to study HR policies available from various sources and work on designing HR policies (Manual) for an Organization (Wherever Possible real time or for model organization)* .	8

*The list of topics provided in the modules is not exhaustive as such students and faculty members can add as and when they feel the appropriateness of the dimension they get from the study.

Learning Resources:		
1	Text Books	How to Develop Essential HR Policies and Procedures, by John H. McConnell Amacom, Div American Mgmt. Association, Volume 1
2	Reference Books	Guide on Labour & Human Resources, Management Forms & Precedents (Law Practice & Procedure), Snow white Human Resource Policies and Procedures for Nonprofit Organizations by Carol L. Barbeito, John Wiley & Sons, 2004
3	Supplementary Reading Material	The HR Toolkit, Denise A Romano, TMGH HR Manuals, Handbooks available through Contacts and web sources
4	Websites	www.chillibreeze.com/articles_various/HR-policies-in-India.asp http://toostep.com/debate/are-hr-policies-of-indian-companies-employee-friendly
5	Journals	International Journal of Human Resource Management Human Resource Management Journal Human Resource Management

Semester	IV	Specialization	HRM
Course Code	416HR	Type	Subject – Elective
Course Title	Competency Mapping		

Course Objectives:	
1	Make the students understand concept and importance of competency mapping
2	Give insight into the process and models of competency mapping

Syllabus:

Unit Number	Contents	Number of Sessions
1	Understanding Competency Mapping : Introduction---history and origin of competency mapping----Reasons for popularity of competency mapping--- Definitions and components of competency---Skill, knowledge and motive---traits of self-concept	6 + 1
2	Competency Mapping - procedures and steps: Determining objectives and scope---clarifying implementation goals and standards----create an action plan----define performance effectiveness----tools for data collection--data analysis---validating competency model----mapping future jobs and single incumbent jobs-----using competency profiles In HR decision	7 + 1
3	Competency Categories: Thresh hold, differentiating, generic vs. key, functional or technical, leadership , managerial	4 + 1
4	Leading and managing competency mapping : Acceptance of competency mapping----causes for resistance---recommended action to address resistance---- Delphi technic,360 degree feedback, HR generic competency mapping----supervisory generic competency mapping	4 + 1
5	Competency assessment and uses : Strategies to address the gaps---- competency recruitment and selection-----competency based appraisal----- competency based succession and career planning----competency based compensation and benefits-----competency based training and development	4 + 1

Learning Resources:		
1	Text Books	The Handbook of Competency Mapping: Understanding, Designing and Implementing Competency Models in Organizations by Seema Sanghi Sage Publications Pvt. Ltd; Competency Mapping by R K Sahu, Publisher : Excel ASTD Competency Study: Mapping the FuturebyPaul R. Bernthal, Publisher: ASTD Press (June 6, 2004)
2	Reference Books	Competency Mapping For Superior Results by Mukherjee, Sraban TMGH, 2011 -12 Edition
3	Supplementary Reading Material	Understanding Organizational Behavior by Uday Parek, Oxford University Press
4	Websites	http://www.bodhih.com/humanresources/competencymapping.html http://competency-matrix.blogspot.in/ http://mmgindia.com/?tag=competency-mapping
5	Journals	International Journal of Human Resource Management Human Resource Management Journal Human Resource Management

MBA SYLLABUS: SEMESTER IV
INTERNATIONAL BUSINESS MANAGEMENT - SPECIALIZATION

University of Pune

Semester	IV	Specialization	IB
Course Code	403IB	Type	Subject - Core
Course Title	International Business Environment		

Course Objectives:

1	To help students understand the nature scope and structure of International Business
2	To explore students to various policy perspective in international regulatory environment.
3	To enable students to understand the influence of various environmental factors on international business operations..

Syllabus:

Unit Number	Contents	Number of Sessions
1	Environmental Context of International Business: Framework for analyzing international business environment – Domestic, foreign and global environments and their impact on international business decisions. Global Trading Environment: World trade in goods and services – Major trends and developments; World trade and protectionism – Tariff and non-tariff barriers; Counter trade.	7 + 2
2	International Financial Environment: Foreign investments -Pattern, Structure and effects; Movements in foreign exchange and interest rates and then impact on trade and investment flows.	7 + 2
3	International Economic Institutions and Agreements: WTO, IMF, World Bank UNCTAD, Agreement on Textiles and Clothing (ATC), GSP, GSTP and other International agreements; International commodity trading and agreements.	7 + 2
4	Multinational Corporations and their involvement in International Business: Issues in foreign investments, technology transfer, pricing and regulations; International collaborative arrangements and strategic alliances.	7 + 2
5	Regional Economic Groupings in Practice: Regionalism vs. multilateralism, Structure and functioning of EC and NAFTA; Regional economic cooperation. Emerging Developments and Other Issues: Growing concern for ecology; Counter trade; IT and international business.	7 + 2

Learning Resources:		
1	Text Books	Bennet, Roger, International Business, Financial Times, Pitman Publishing, London, 1999. Bhattacharya, B., Going International: Response Strategies of the Indian Sector, Wheeler Publishing, New Delhi, 1996. Czinkota, Michael R., et. al., International Business, the Dryden Press, Fortworth, 1999.
2	Reference Books	Danoes, John D. and Radebaugh, Lee H., International Business: Environment and Operations, 8th ed., Addison Wesley, Readings, 1998. Griffin, Ricky W. and Pustay, Michael W, International Business: A Managerial Perspective, Addison Wesley, Readings, 1999. Hill, Charles W. L., International Business, McGraw Hill, New York, 2000.
3	Supplementary Reading Material	Economic Times Daily Business Standard Daily The Hindu Business Line
4	Websites	http://www.wto.org/ http://www.imf.org/external/index.htm
5	Journals	Asian Economic Bulletin Asian Journal of Management Cases Economic and Political Weekly Enterprise and Society: The International Journal of Business History Global Business Review International Business & Economics Research Journal International Business and Management International Business Research Journal of Economic Perspectives Journal of International Business Journal of International Business and Economy World Affairs: the Journal of International Issues

Semester	IV	Specialization	IB
Course Code	404IB	Type	Subject - Core
Course Title	Indian Economy and Trade Dependencies		

Course Objectives:

1	To explore students to the diversity of issues prevalent in the Indian Economy.
2	To provide insights to the students about the trade related issues of the Indian Economy.
3	To make students realize the importance of trade in the present globalized era.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to Indian Economy : Alternative Development Strategies – Trends in National Income, Growth and Structure since 1991 - New Industrial Policy 1991 – Recent changes in Trade Policy - Competition Policy - Public Sector Reform - Privatization and Disinvestments – Progress of Human Development in India	7 + 2
2	Planning and Economic Development : Redefining the Role of the State – Human Capital Formation in India – Problem of Foreign Aid – Economic Reforms and Reduction of Poverty –Measures to Remove Regional Disparities	7 + 2
3	Indian Industries : Review of Industrial Growth under 10 th and 11 th Five year plan - Growth and present state of IT industry in India – Outsourcing, Nationalism and Globalization – Small Sector Industrial Policy	5 + 2
4	a) Foreign Trade : Trends of Exports and Imports of India – Composition of India's Foreign Trade - Direction of India's Foreign Trade – Growth and Structure of India's Foreign Trade since 1991 – Balance of Payments since the New Economic Reforms of 1991. b) Foreign Capital : Need for Foreign Capital – Foreign Investment Inflows – Role of Special Economic Zones (SEZ)	10 + 2
5	India in the Global Setting : India in Global Trade – Liberalization and Integration with the Global Economy – Globalization Strategies – India's Foreign Exchange Reserves – Convertibility of the Rupee – WTO and India.	6 + 2

Learning Resources:		
1	Text Books	Indian Economy by Datt & Sundharam, 61 st Edition, S Chand Indian Economy by Misra & Puri, 4 th Edition, Himalaya Publishing House
2	Reference Books	India's Economic Development Since 1947 3rd Ed. Editor : Uma Kapila
3	Supplementary Reading Material	Foreign Exchange Handbook by H.P Bharadwaj. World Development Reports (Recent years) Economic Times Daily Business Standard Daily The Hindu Business Line
4	Websites	http://www.wto.org/ http://www.imf.org/external/index.htm http://indiabudget.nic.in/
5	Journals	Economic and Political Weekly Foreign Trade Review Global Business Review International Trade Forum International Trade Journal Journal of Economic Perspectives Journal of International Trade & Economic Development Journal of Asian Business Monthly Statistics of International Trade World Affairs: the Journal of International Issues

Semester	IV	Specialization	IB
Course Code	405IB	Type	Subject - Elective
Course Title	Environment and Global Competitiveness		

Course Objectives:

1	To make students aware of the competitive issues facing nations, companies, and individuals in a global economy.
2	To help students understand the issues, policies, and actions that organizations should pursue to develop and maintain organizational strengths that will endure the competitive environment of global markets.
3	To make students realize the importance of sustainable development way of thinking in globally competitive world.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Measuring Competiveness: Defining Competiveness, Macro Economic Indicators – Global Competitiveness Index – Pillars of competitiveness. Michael Porter's five force and competitive advantage theory. Indicators of world competitiveness. Ranking of the current year and India's position. Changes in the top 5 rankings in last 3 year and lessons thereof	5 + 1
2	Globalization & Business: Overview of commercial geography. Impact of geographical aspects on international business and business strategies. Global dynamics: interplay of local, national, regional and worldwide forces OECD / WEF/ G8 / G33. Economic, political, social, cultural, legal, technological forces	5 + 1
3	Sustainable Competitiveness: Economic Growth – Problem or Solution? - Growth, Free Markets, and Business Responsibility – The failure of market-based policies - Sustainable Production and Sustainable Products - Sustainable Consumption - The Sustainable Competitiveness Index framework.	5 + 1
4	Innovation Management : Reducing Uncertainty - Virtualizing the Business Model to Drive Innovation, Agility, and Value Creation - Globalization for Innovations	5 + 1
5	Global Strategy, Structure and Implementation: Country Evaluation and Selection – Export and Import Strategies – Direct Investment and Collaborative Strategies.	5 + 1

Learning Resources:		
1	Text Books	International Business , 12/E, John Daniels, Lee Radebaugh, Daniel Sullivan and Prashant Salwan, Pearson International Business, 6/E, Hill and Jain, The McGraw – Hill Companies
2	Reference Books	Business, Ethics, and the Environment: Imagining a Sustainable Future Joseph DesJardins, Pearson Thomas L Friedman. The World Is Flat: A Brief History of the Twenty-First Century, Further Updated and Expanded, Release 3.0. New York: Picador/Farrar, Straus, and Giroux, 2007. Pankaj Ghemawat. World 3.0: Global Prosperity and How to Achieve It. Boston: Harvard Business Review, 2011. Tarun Khanna and Krishan G. Palepu. Winning in Emerging Markets: A Road Map for Strategy and Execution. Boston: Harvard Business Press, 2010. Richard M. Steers, Carlos J. Sanchez-Runde, and Luciara Nardon. Management Across Cultures: Challenges and Strategies. New York: Cambridge University Press, 2010. Innovation Management, 2/E , Allan Afuah, Oxford
3	Supplementary Reading Material	Global Competitiveness Report 2011-12 , World Economic Forum Economic Times Daily Business Standard Daily The Hindu Business Line
4	Websites	http://www3.weforum.org/docs/WEF_GCR_Report_2011-12.pdf Michael Porter on Competitiveness - Youtube
5	Journals	<u>Journal of Global Competitiveness</u> <u>Advances in Competitiveness Research</u>

Semester	IV	Specialization	International Business Management
Course Code	406IB	Type	Subject - Elective
Course Title	Marketing to Emerging Markets & Bottom of the Pyramid		

Course Objectives:

1	To understand needs and aspirations at the Bottom Of the Pyramid (BOP)
2	To learn about opportunities that exist at BOP

Syllabus:

Unit Number	Contents	Number of Sessions
1	Overview of Emerging Markets: Countries constituting emerging markets. Countries constituting BRICS & Next 11, Growing economic power of emerging markets, Demographic & economic scenario of emerging market countries. Emerging market size for different sectors	5 + 1
2	Emerging Markets - Perspectives & Practices: Characteristics of emerging markets: Emerging markets versus developed markets - market heterogeneity, sociopolitical governance, chronic shortage of resources, unbranded competition, and inadequate infrastructure. Comparative advantage of emerging markets: Policy based advantage, raw material based advantage, NGO based advantage, Marketing Implications in terms of strategy, policy & practice of marketing, Marketing Mix Implications.	7 + 1
3	Bottom of the Pyramid Markets: Difference between Emerging Markets & BOP Markets, Definition, size & composition of BOP markets all over the world, Characteristics of BOP markets	5 + 1
4	Marketing Strategies for BOP Markets: Four elements of BOP strategy - creating buying power, shaping aspirations, improving access, and tailoring local solutions. C K Prahalad's 12 principles, BOP Protocol	5 + 1
5	Criticism of Marketing to BOP & alternate perspectives	3 + 1

Learning Resources:		
1	Text Books	The Fortune at the Bottom of the Pyramid, Prahalad, C.K., Pearson – Singapore.
2	Reference Books	We are like that only by Bijapurkar, R. (2007), New Delhi: Penguin Portfolio.
3	Supplementary Reading Material	<p>Bang V.V. and Joshi S. L. (2008), "Conceptualization of Market Expansion Strategies in Developing Economies", Academy of Marketing Science Review, 4, [Online] Available: http://www.amsreview.org/articles/bang04-2008.pdf</p> <p>World Business Council for Sustainable Development (WBCSD). (2004), Doing business with the poor – a field guide. (March). [Online] Available: http://www.wbcsd.org/DocRoot/uCxCGeI0hrCEXcsN5slo/sl-field-guide-reprint.pdf</p> <p>United Nations Development Programme (UNDP). (2008), "Creating Value For All: Strategies For Doing Business With Poor", The Growing Inclusive Markets Initiative, (July). [Online] Available: http://www.undp.org/gimlaunch/download.shtml.</p> <p>Preston, K, A. Libow, A. Bruno, C.Meade, and R. Wells. (2007), Opportunities for the Majority Index: Analysis of Corporate Performance in Latin America and the Caribbean, The Inter-American Development Bank, 21st December. [Online] Available:http://www.iadb.org/am/2008/docs/OM_Index_Final_Report_v2.pdf.</p> <p>Simanis, E. and S. Hart With J. DeKoszmovszky, P. Donohue, D. Duke, G. Enk, M. Gordon, and T. Thieme. (2008), The Base of the Pyramid Protocol: Toward Next Generation BoP Strategy, Center for Sustainable Global Enterprise, Johnson School of Management, Cornell University, 2nd Ed. . [Online] Available: http://www.wdi.umich.edu/files/BoPProtocol2ndEdition2008.pdf.</p> <p>Karamchandani, A., M. Kubzansky, and P. Frandano. (2009), Emerging Markets, Emerging Models: Market-Based Solutions To The Challenges Of Global Poverty, Monitor group, (March).</p> <p>Hammond, A., W. J. Kramer, R. S. Katz, J. T. Tran, and C. Walker. (2007), The Next 4 Billion: Market size and Business strategy at the Base of the Pyramid, World Resources Institute (WRI) and International Finance Corporation (IFC) [Online] Available: http://www.wri.org/publication/the-next-4-billion.</p> <p>Wilson, D. and R. Purushothaman. (2003) "Dreaming With BRICS: Path to 2050." Goldman Sachs, Global Economics Paper No.99, 1st October.</p>
4	Websites	http://www.wri.org/
5	Journals	<p>Prahalad, C.K., and A. Hammond. (2002), "Serving the World's Poor, Profitably", Harvard Business Review, 80(September), pp. 48-57.</p> <p>Prahalad, C. K. and S. L. Hart. (2002), "The Fortune at the Bottom of the Pyramid", Strategy + Business, 26, pp.54-67.</p> <p>Dawar, N. and A. Chattopadhyay (2000), "Rethinking Marketing Programs for Emerging Markets", William Davidson Institute, Working Paper Number 320.</p> <p>Beshouri, C.P. (2006), "A Grassroots Approach to Emerging-Market Consumers." The McKinsey Quarterly, (March), pp.61-71</p> <p>Karnani, A. (2007), "The Mirage of Marketing to the Bottom of the Pyramid: How The Private Sector Can Help Alleviate Poverty", California Management Review, 49(4), (Summer), pp.90-111.</p> <p>London, T. and S. L. Hart (2006), "Reinventing strategies for emerging markets: beyond the transnational model", Journal of International Business Studies, (August), pp.1–21. [Online] Available: http://e4sw.org/papers/JIBS.pdf.</p> <p>Simanis, E. and S. Hart (2006), "Expanding Possibilities at the Base of the Pyramid - Innovations Case Discussion: KickStart", Innovations, (winter), pp.43-51.</p> <p>Vachani, S. and N. Craig Smith. (2008), "Socially Responsible Distribution: Distribution Strategies For Reaching The Bottom Of The Pyramid", California Management Review, 50(2), (Winter), pp.52-84</p> <p>Sheth, J. N. (2011), "Impact of Emerging Markets on Marketing: Rethinking Existing Perspectives and Practices", Journal of Marketing, Vol. 75 (July), 166 – 182.</p>

Semester	IV	Specialization	International Business Management
Course Code	4071B	Type	Subject - Elective
Course Title	CrossCultural Relationship Marketing		

Course Objectives:	
1	To help students understand the cultural aspects of relationships.
2	To emphasize the need for cultural adaptation in relationship development and negotiations.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Mapping players and process- identifying players, deciders, Informal influences that make or break a deal. Cross cultural etiquette and behavior-the basics.	5 + 1
2	Buyer and seller feedback loop-Relational embeddedness - dependency and influence of network members over buyer and seller.	5 + 1
3	Communication in cross cultural relationships- Cross communication between network members.	5 + 1
4	Andersen's model (2003) on cross cultural relationship Initiation and development. Cross cultural sales negotiations.	5 + 1
5	Approaches to Negotiations-Top down, Protocol& Deportment, Deeper cultural characteristics, Consensus, Coalition Building-Negotiation specific expectations to shape process of negotiation.	5 + 1

Learning Resources:		
1	Text Books	<p>Relationship Marketing in Cross-cultural contexts by Rugimbana and Nwankwos, Thomson Learning-S. Melbourne</p> <p>The World's Business Cultures and How to Unlock Them by Barry Tomalin and Mike Nicks, Viva Books Pvt. Ltd.</p> <p>Relationship Marketing-the IMP Perspective in Handbook of Relationship Marketing by Jagdish Seth and Atul Parvatiyar 2nd Edition. Thousand Oaks California, Sage Publications</p> <p>Hofstede G - Cultural Consequences International differences in Work Related Values, Beverly Hills, CA Sage Publications</p> <p>Relationship Marketing -The UK Perspective in Hand book of Relationship Marketing by Jagdish Seth and Atul Parvatiyar 2nd Edition California, Sage Publications</p>
2	Reference Books	<p>Cross-Cultural Business Behavior: Marketing, Negotiating, Sourcing and Managing across Cultures by Richard Gesteland, 3rd Edition, Copenhagen Business School Press</p> <p>Cross-Cultural Business Behavior - A guide for Global Management by Richard Gesteland 5th Edition</p> <p>Marketing by Agreement: A Cross-cultural Approach to business negotiations by McCall, J.B. & M.B. Warrington 2nd Edition, John Wiley & Sons</p>
3	Supplementary Reading Material	<p>Global Marketing: A Decision Oriented Approach by Svend Hollensen, 5th Edition.</p> <p>Advances in International Marketing: Establishing Marketing Relationships in Cross Cultural Business, Emerald Insight Books</p> <p>Bargaining Across Borders - How to Negotiate Successfully Anywhere in the world by Foster D.A., MGH, New York</p>
4	Websites	-----
5	Journals	<p>Cross-Cultural Examination of Relationship Quality, by Barry, James M.; Doney, Patricia M.. Journal of Global Marketing, Sep/Oct2011, Vol. 24 Issue 4</p> <p>An investigation of relationship learning in cross-border buyer-supplier relationships: The role of trust, by Liu, C.-L.E.. International Business Review, Jun2012, Vol. 21 Issue 3</p> <p>The Complexities of Perceived Risk in Cross-Cultural Services Marketing by Keh, Hean Tat; Sun, Jin. Journal of International Marketing. 2008, Vol. 16 Issue 1, p120-146.</p> <p>The Effects of Adaptation, Commitment And Trust In Cross-Cultural Marketing Relationships by Walton, James R.; Salazar, Ronald J.; Jifu Wang. Journal of Applied Business Research. 2008 3rd Quarter, Vol. 24 Issue 3, p29-38.</p>

Semester	IV	Specialization	International Business Management
Course Code	408IB	Type	Subject - Elective
Course Title	Foreign Exchange Management		

Course Objectives:

1	To make the student aware about importance, concept and tools of Foreign Exchange Management.
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Syllabus:

Unit Number	Contents	Number of Sessions
1	Management of Foreign Exchange with special reference to India: Meaning of the Term " Foreign Exchange", Exchange Market, Statutory basis of Foreign Exchange, Evolution of Exchange Control, Outline of Exchange Rate and Types, Introduction to International Monetary Developments : Gold standard, Bretton Woods system, Fixed-Flexible Exchange Rate Systems, Euro market.	5 + 1
2	Sources of demand for and supply of foreign exchange – the balance of payments (bop) framework; nominal, real and effective exchange rates; determination of rate of exchange; monetary portfolio balance; purchasing power parity approaches; overvalued and undervalued currencies; exchange rate systems. India's Forex Scenario : BOP crisis of 1990, LOERMS, Convertibility.	5 + 1
3	General factors of exchange rate fluctuations; the DORNBUSCH Sticky – price theory of exchange rate volatility; exchange rate overshooting and the J-curve effect; central banking intervention for exchange rate stability; effect of depreciation on trade balance.	5 + 1
4	Nature functions and participants of foreign exchange market; spot and forward markets; forward premium; forwards in hedging and arbitrage; methods of quoting exchange rates; cross rates of exchange; arbitrage operations; bid-ask spreads; the Interest Rate Parity. Theorem; the Expectation Theory; International Fisher Effect.	5 + 1
5	Currency futures, options and determination of their market value, over-the-counter options; Fisher Black's Optional-Pricing model; currency and interest rate swaps; credit risk of swaps; Euro currency market and its instruments; measuring foreign exchange risk and exposure; basic techniques of exposure management; foreign exchange regulation in India.	5 + 1

Learning Resources:		
1	Text Books	D Levi Maurice, International Finance, Prentice Hall of India, New Delhi Roth Paul, Mastering Foreign Exchange and Money Markets, Pitman, London
2	Reference Books	Giddy, IAN, Global Financial Markets, AITBS, New Delhi Apte P G, International Financial Management, Tata McGraw Hill, New Delhi
3	Supplementary Reading Material	Buckley, Multinational Finance, Prentice Hall of India, New Delhi
4	Websites	-
5	Journals	Asian Economic Bulletin Asian Journal of Management Cases Economic and Political Weekly Global Business Review Global Journal of International Business Research International Business & Economics Research Journal Journal of Economic Perspectives Journal of International Business Journal of International Business and Economy Journal of International Trade & Economic Development World Affairs: the Journal of International Issues

Semester	IV	Specialization	International Business Management
Course Code	409IB	Type	Subject - Elective
Course Title	E Commerce		

Course Objectives:

1	To introduce students to the concept of e-commerce
2	To equip students to assess e-commerce requirements of a business and develop e-business plans
3	To help students understand various e-commerce applications

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to Electronic Commerce: Meaning, nature and scope; Channels of e-commerce; Business applications of e-commerce; Global trading environment and adoption of e-commerce. Business Models of E-commerce and Infrastructure; B2B, B2C, B2G and other models of e-commerce; Applications of e-commerce to supply chain management; product and service digitization; Remote servicing procurement, and online marketing and advertising E-commerce resources and infrastructure planning.	5 + 1
2	Business to Consumer E-commerce Applications: Cataloging; Order planning and order generation; Cost estimation and pricing; Order receipt and accounting; Order selection and prioritization: Order scheduling, fulfilling and delivery, Order billing and payment management; Post sales services.	5 + 1
3	Business to Business E-Commerce: Need and alternative models of B2B e-commerce; Using Public and private computer networks for B2B trading; EDI and paperless trading: characteristic features of Edi service arrangement; Internet based EDI; EDI architecture and standards; VANs; Costs of EDI infrastructure; Reasons for slow acceptability of EDI for trading; E-marketing-Traditional web promotion: Web counters; Web advertisements.	5 + 1
4	Electronic Payment Systems and Order Fulfillment: Types of payment systems - e-cash and currency servers, e-cheques, credit cards, smart cards, electronic purses and debit cards; Operational, credit and legal risks of e-payment, Risk management options for e-payment systems; Order fulfillment for e-commerce. Security Issues in E-Commerce: Security risks of e-commerce-Types and sources of threats; Protecting electronic commerce assets and intellectual property; Firewalls; Client server network security; Data and message security; Security tools; Digital identity and electronic signature; Encryption approach to e-commerce security.	5 + 1
5	Regulatory Environment of E-Commerce: Borders and jurisdiction contracting and contract enforcement; International cyber laws -aims and salient provisions; cyber laws in India and their limitations; Taxation and e-commerce; Ethical issues in e-commerce.	5 + 1

Learning Resources:		
1	Text Books	Bajaj, Deobyani Nag, E-Commerce, Tata McGraw Hill Company, New Delhi, 2000. Diwan, Prag and Sunil Sharma, Electronic Commerce -A Manager's Guide to E-Business, Vanity Books International, Delhi. Greenstein, M. and T.M. Feinman, Electronic Commerce: Security, Risk Management and Control, Tata McGraw hill, 2000.
2	Reference Books	Agarwala, Kamlesh N., Amit Lal and Deeksha Agarwala, Business on the Net: An Introduction to the Whats and Hows of E -Commerce, Macmillan India Ltd., 2000. Fitzerald, Business Data Communication Network, McGraw Hill, 1998. Kalakota, Ravi and Andrew P. Whinson, Frontiers of Electronic Commerce, Addison Wesley. Kosiur, David, Understanding Electronic Commerce, Prentice Hall of India Private Ltd., New Delhi.
3	Supplementary Reading Material	Schneider, Gary P. and James T. Perry, Electronic Commerce, Thompson Learning, Cambridge, 2001. Turban, E., et. al., Electronic commerce: A Managerial Perspective, Pearson Education Asia. Whiteley, David, E-commerce, McGraw Hill, New York, 2000. Young, Margaret Levine, The Complete Reference to Internet, Tata McGraw Hill, New Delhi, 1999.
4	Websites	-
5	Journals	-

Semester	IV	Specialization	International Business Management
Course Code	410IB	Type	Subject - Elective
Course Title	Enterprise Resource Planning		

Course Objectives:

1	To help the student understand how a business works and how information systems fit into business operations.
2	To emphasize the cross functional integration aspects of a business.
3	To enable better managerial decision making through real time data integration and sharing.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Understanding Enterprise Resource Planning: Concept of Enterprise , Overview of Business Functions and Business Processes, Integrated Management Information, Business Modeling, Evolution of ERP; ERP and related technologies; Myths about ERP; Importance of ERP; Value creation in organizations through ERP; Benefits of ERP; Risk of ERP - People Issues, Process Risks, Technological Risks, Implementation Issues, Operation & Maintenance Issues; Managing risk in ERP projects.	5 + 1
2	ERP & Related Technologies: Business Process Reengineering, Data Warehousing, Data Mining, OLAP, PLM, SCM, CRM, GIS, ERP Functional Modules , Integration of ERP, Supply Chain, CRM.	5 + 1
3	ERP Implementation: Technological, Operational, Business Reasons for ERP implementation , ERP implementation Life Cycle – Objectives - Phases - Reasons for failure; Implementation challenges; ERP transition strategies - Big Bang Strategy, Phased Implementation, Parallel Implementation, Process Line Transition Strategy, Hybrid Transition Strategy, Strategy Choice; Success and failure factors of an ERP implementation; ERP implementation costs; Organization and working of ERP implementation team.	5 + 1
4	ERP Operations and Future Trends: Operation and maintenance of the ERP system; Maximizing the ERP system; ERP and e-business; Integration of ERP, internet and www; Future of ERP.	5 + 1
5	ERP Systems Processes and Management Control: Sales and Marketing; Accounting and Finance; Production and Material Management; Human Resource Management, Overview of an ERP product.	5 + 1

Learning Resources:		
1	Text Books	Leon, Alexis, "Enterprise Resource Planning" TMH Publication, 2nd Ed., 2008. Sumner, Mary, "Enterprise Resource Planning" Pearson Education, 2006. Koul, Saroj, "Enterprise Resource Planning" Galgotia Publishing, 2001. Garg, V. K. and Venket Krishna N. K., "ERP Concepts and Practice", PHI Publication, 1997.
2	Reference Books	Leon, Alexis, "ERP Demystified", TMH Publication, 2nd Ed., 2004.
3	Supplementary Reading Material	ERP In Practice by Vaman Jagan, TMGH
4	Websites	-
5	Journals	-

Semester	IV	Specialization	International Business Management
Course Code	411IB	Type	Subject - Elective
Course Title	Global HR		

Course Objectives:

1	To give exposure to the students to international HR
2	To make students understand various initiatives in global HR
3	To make students understand various issues in global HR

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction: Defining international HR, difference between domestic and international HR, Variables determining difference between domestic and international HR, The path to global status, Talent management, International business ethics and HRM	4 + 1
2	Managing and supporting international assignments: Linking international assignments with organizational strategy, Staffing for international assignments, Issues in staff selection, selection criterion, The role of expatriate, the role of non-expatriate, dual career couples, are female expatriate different? role of the corporate HR function.	6 + 1
3	International HR: Importance of pre departure training, programs, the effectiveness of pre departure training, developing staff through international assignments. Objectives of international compensation, key components of international compensation program, approaches to international compensation. Performance management in multinational, PM of international employees, Appraisal of international employees.	6 + 1
4	Key issues in international HR : Trade unions and international HR , the response of trade unions to multi nationals, the issue of social dumping, the impact of digital economy	4 + 1
5	Virtual Organization study: Field Study/ Desk Research Students to be divided in a group of 5 each. Each group to identify two organizations having presence in other country/countries and study their HR practices in the light of the above topics. This may be desk research or field visit. The groups will give hard copy of the work and also presentation.	5 + 1

Learning Resources:		
1	Text Books	International Human Resource Management by Peter j Dowling, Devis E Welch, 4 th Edition.
2	Reference Books	International Human Resource Management by Hilary Harris, Chris Brewster and Paul Sparrow, VMP Publishers and Distributors International Human Resource Management by K Aswathappa and Sadhna Dash , TMGH
3	Supplementary Reading Material	International HRM- A cross cultural approach, Terence Jackson, SAGE publication.
4	Websites	http://www.cipd.co.uk/global/ www.shrm.org www.hrmguide.net
5	Journals	International Journal of Human Resource Management Human Resource Management Journal Human Resource Management

Semester	IV	Specialization	International Business Management
Course Code	412IB	Type	Subject - Elective
Course Title	WTO and Intellectual Property Rights		

Course Objectives:

1	To sensitize the students about the importance of WTO and Intellectual property in the global economy.
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Syllabus:

Unit Number	Contents	Number of Sessions
1	GATT and WTO: GATT and Evolution of World Trade Organization (WTO), Role of WTO in International Trade, Main Features of WTO, New Issues in WTO: Environment, Investment, Competition Policy, Government Procurement, Trade Facilitation, Electronic Commerce, Social Clause, Labour Standards; Implementation and Implication.	5 + 1
2	General Introduction in the Intellectual Property Law: The Notion of Intellectual Property, Historical Background, The Main Fields of Intellectual Property, Industrial Property Law: Inventions, Industrial Creations Characterized by Relative Novelty (innovations), Know-How, Industrial Designs and Models, Utility Models, Layout-designs of Semiconductor Integrated Circuits (semiconductor chips), Plant Varieties, Trademarks, Geographical Indications, Trade-names, Emblems, Other Distinctive Signs; Scientific Discoveries, Neighbouring Rights.	5 + 1
3	Intellectual Property: IPR and Economic Development, Copyright Law ("Rights of Authors"), Correlation of Intellectual Property Law with Unfair Competition, Common Features of the Intellectual Property Rights, Legal Nature of the Intellectual Property Rights, Position of the Intellectual Property Law in the Legal System.	5 + 1
4	International Protection of Intellectual Property: The World Intellectual Property Organization, The Agreement on Trade-Related Aspects of Intellectual Property Rights ("TRIPS"), The Paris Convention for the Protection of Industrial Property, The Patent Cooperation Treaty, The Hague Agreement Concerning the Deposit of Industrial Designs, The Berne Convention for the Protection of Literary and Artistic Works, The Rome International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations, The Geneva Convention for the Protection of Producers of Phonograms Against Unauthorized Duplications of their Phonograms.	5 + 1
5	Trademarks: The International Convention for the Protection of New Varieties of Plants, The Budapest Treaty on the International Recognition of the Deposit of Microorganisms, The Madrid Agreement Concerning the International Registration of Trademarks and the Protocol Relating to the Madrid Agreement, The Trademark Law Treaty	5 + 1

Learning Resources:		
1	Text Books	Das Bhagirath Lal (2003). The WTO and the Multilateral Trading System: Past, present and future, Third World Network and Zen Books. David Rainbridge (2003). Intellectual Property, Pearson Education.
2	Reference Books	Ganguli, Prabudha (2001). IPR-unleashing the Knowledge Economy, Tata McGraw-Hill Publishing Co. Ltd. Ramappa, T. (2000). Intellectual property rights under WTO: Task before India, Wheeler Publishing.
3	Supplementary Reading Material	Maskus Keith E. (2000). Intellectual Property Right in the global economy, Institute for International Economies, Washington.
4	Websites	www.wipo.int/ www.wto.org/english/tratop_e/trips_e/trips_e.htm www.wipo.int/pct/en/texts/articles/atoc.htm www.wipo.int/treaties/en/ip/wct/ www.ipmatters.net/features/000707_gibbs.html www.iptoday.com
5	Journals	Journal of Intellectual Property Rights Indian Journal of Intellectual Property Law Journal of Intellectual Property Law & Practice IDEA- The Intellectual Property Law Review

Semester	IV	Specialization	International Business Management
Course Code	413IB	Type	Subject - Elective
Course Title	Global Competitiveness and Strategic Alliances		

Course Objectives:

1	To develop conceptual understanding of global competitiveness
2	To understand strategies and processes that lead to global competitiveness
3	To understand strategic alliance as an important initiative to achieve global competitiveness
4	To know steps to be taken to implement strategic alliance program

Syllabus:

Unit Number	Contents	Number of Sessions
1	Global Competitiveness: An Overview – Macroeconomic and Business Strategy Perspective, Framework for Assessing Competitiveness – Various Approaches; International and National Competitiveness Studies.	5+1
2	Developing Competitiveness – Role of Quality and Productivity in Achieving World Class Competitiveness - Role of Government Policy - Attaining Competitiveness through Integrated Process Management, Technology and Innovation - Human Capital and Competitiveness - Role of Information Systems in Building Competitiveness - Industrial Clusters and Business Development - Strategic Management of Technology and Innovation.	5+1
3	Global Competitiveness of Indian Industry – Status; Causes for lack of competitiveness - Strategic Options for Building Competitiveness -	5+1
4	Joint Ventures and other forms of Strategic Alliance-Benefits and Scope of Strategic Alliance – Forms of management/ ownership – Types of Alliance – Steps in implementing Strategic Alliance – Limitations and Pitfalls of Strategic Alliance	5+1
5	Internationalization of Indian Business - Case Studies of Globally Competitive Indian Companies.	5+1

Learning Resources:

1	Text Books	Momaya Kiran (2001). International Competitiveness: Evaluation and Enhancement, Hindustan Publishing Corporation (India). Fidelis Ezeela Harrison (1999). Theory and Policy of International Competitiveness, Greenwood Publishing Group.
2	Reference Books	International Business, 4th Edition, Griffin and Pustay, Prentice Hall
3	Supplementary Reading Material	Marcela, Vivian Walsh (2007). International Competitiveness and Technological Change, Oxford Press. Hamel G. and Prahalad C.K (1994). Competing for the future. Harvard Business Press. IMD, World Competitiveness Year Book, Latest issue. World Economic Forum, Global Competitiveness Report, Latest report.
4	Websites	-
5	Journals	-

Semester	IV	Specialization	International Business Management
Course Code	414IB	Type	Subject - Elective
Course Title	International Diversity Management		

Course Objectives:

1	To equip students with the knowledge and importance of culture and help them to manage International Diversity.
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Syllabus:

Unit Number	Contents	Number of Sessions
1	Broad concept and definition of diversity. Historical perspective of diversity management in changing demographics	5 + 1
2	Understanding cultures, influence of behavior. Explanation of the dimension of race, ethnicity, gender, caste, sexual orientation. Socio-economic status, age, physical abilities, religious beliefs, political ideologies.	5 + 1
3	Formulations of international equal opportunity and non-discrimination policies. Limitations of Affirmative action welcoming ex-parte evaluation and other legal policies.	5 + 1
4	Recruitment, development and retention strategies in diverse organizations and Workplaces. Diversity management training programs for all employees and continuous monitoring of results, Diversity Audit.	5 + 1
5	Analysis of any two Organization's culture,	5 + 1

Learning Resources:		
1	Text Books	International Business, S Shajahan, Macmillan India Limited, Delhi, 2006. International Business: An Introduction, Geert Hofstede, Palgrave, New York, 2001. International Human Resource Management by Hilary Harris, Chris Brewster and Paul Sparrow, VMP Publishers and Distributors International Human Resource Management by K Aswathappa and Sadhna Dash , TMGH
2	Reference Books	International Human Resource Management by Peter j Dowling, Deice E Welch, 4 th Edition
3	Supplementary Reading Material	International HRM- A cross cultural approach, Terence Jackson, SAGE publication.
4	Websites	-
5	Journals	Colorful window dressing: A critical review on workplace diversity in three major American corporations by Marques, Joan F. Human Resource Development Quarterly. Winter2010, Vol. 21 Issue 4, p435-446. Managing Diversity: Using an Equal Opportunities Audit to Maximize Career Potential and Opportunities in a UK Bank by Sutherland, Valerie J.; Davidson, Marilyn J. European Journal of Work & Organizational Psychology. 1996, Vol. 5 Issue 4, p559. How to...take advantage of diversity by People Management. 3/7/2002, Vol. 8 Issue 5, p52. How multinationals can attract the talent they need by Dewhurst, Martin; Pettigrew, Matthew; Srinivasan, Ramesh; Choudhary, Vimal. McKinsey Quarterly. 2012, Issue 3, p92-99. Reverse mentoring at work: Fostering cross-generational learning and developing millennial leaders by Marcinkus Murphy, Wendy. Human Resource Management. Jul/Aug2012, Vol. 51 Issue 4, p549-573. International Journal of Human Resource Management Human Resource Management Journal Human Resource Management

Semester	IV	Specialization	International Business Management
Course Code	415IB	Type	Subject - Elective
Course Title	Foreign Language for International Business - II		

Course Objectives:

1	To equip the students with a foreign language skill at least to that extent that is required for conducting international business.
2	To provide the student with listening, reading, speaking and writing skills in chosen foreign language.
3	To enhance the vocabulary in the selected Foreign Language.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introducing a company : Introducing a company, its organization, its activities, its market, its trade policy, its financial and trade positions as well as its result and experience all these quantitatively and indicate also their evolution and make comparisons, interpret and comment on tables and graphs.	5 + 1
2	Speaking about the Professional environment : Talking about the framework of professional environment, its working conditions, the posts, the timings, Salaries leave, holidays and language learner's relationship with other colleagues.	5 + 1
3	Explaining the details : Understanding and explaining the manufacturing process and understand the directions for use. Asking and giving information on a product and on a service. Obtaining and providing information on the price, the modes and conditions of payment. Noting down and convey requests and claims of the clients. Placing orders.	5 + 1
4	Managing Visitors : Welcoming visitors and clients and to provide them with necessary information, orient them, scan the visitors and also to be able to make them wait.	5 + 1
5	Organizing : Organizing meetings and participate in meetings. Organizing different events, for example, an appointment, a meeting, a seminar, a fair or an exhibition and also be able to fix up, confirm, postpone or cancel an appointment or a programme.	5 + 1

Note:

Institute may offer any one of the following foreign languages to the students: SPANISH / FRENCH/ GERMAN/ JAPANESE / CHINESE

Learning Resources:

1	Text Books	Relevant Standard Text Books, Videos, Audio CDs for the language offered to the students.
2	Reference Books	
3	Supplementary Reading Material	
4	Websites	
5	Journals	

MBA SYLLABUS: SEMESTER IV
SUPPLY CHAIN MANAGEMENT - SPECIALIZATION

University of Pune

Semester	IV	Specialization	Supply Chain Management
Course Code	403SCM	Type	Subject Core
Course Title	Strategic Supply Chain Management		

Course Objectives:	
1	To understand the role and objectives of Strategic Supply Chain Management
2	To recognize the role and importance of strategic partnerships and alliances in Supply Chain Management
3	To appreciate the increasing scope of Supply Chain Management and its future challenges

Syllabus:

Unit Number	Contents	Number of Sessions
1	Supply Chain Strategy: Strategic objectives of SCM - customer focus, product development, market development, diversification, learning & organizational capability, sustainable competitive advantage through SC	7 + 2
2	Managing SC for Strategic Fit: concept of strategic fit, steps in achieving strategic fit, impact of customer needs, impact of uncertainty, multiple products & customer segments, PLC, globalization & competitive changes over time	7 + 2
3	Expanding Strategic Scope: Minimize local cost perspective, Minimize functional Cost perspective, Maximize Company Profit perspective, Maximize SC Surplus perspective, Agile intercompany inter functional scope	7 + 2
4	Strategic Partnerships & Alliances: Collaborative Advantages, Framework for Strategic Alliances, Core Competence – 3PL, 4PL & Outsourcing: Advantages & Disadvantages, Prerequisites, Implementation Issues	7 + 2
5	Supply Chain Challenges – Strategies for the future: Mass customization, Globalization, Greening, Ethical SC, Intelligent System, Implications for managers, organizations & policy makers	7 + 2

Learning Resources:		
1	Text Books	Supply Chain Management: Strategy Planning & Operation by Sunil Chopra, Peter Meindl, Kalra, Pearson, 3 rd Edition. Supply Chain Strategies – Customer Driven & Customer Focused by Tony Hines, Elsevier, 1 st Edition
2	Reference Books	Managing the SC- A Strategic Perspective by Gattorna Walters, Palgrave Macmillan, 1 st Edition New Directions in Supply Chain Management: Technology & Strategy Implementation by Tonya Boone and Ram Ganeshan, Jaico Publishing, 2007 Extending the Supply Chain by Boyer, Forhlich and Hult, PHI, 3 rd Indian Reprint, 2009
3	Supplementary Reading Material	Designing & Managing the SC – Concepts, Strategies & Case studies – by Levi, Kaminskyet. al., TMGH, 3 rd Edition Manufacturing Operations and Supply Chain Management: The Lean Approach by Taylor and Brunt, Thomson Learning. Supply Chain Management by Mentzer, Response Books, 2007
4	Websites	http://csmp.org/ www.supplychain.org
5	Journals	An adaptive framework for aligning (re)planning decisions on supply chain strategy, design, tactics, and operations by Ivanov, Dmitry., International Journal of Production Research, Jul2010, Vol. 48 Issue 13 The Impact of Competitive Strategy and Supply Chain Strategy on Business Performance: The Role of Environmental Uncertainty by Yinan Qi; Xiande Zhao; Chwen Sheu., Decision Sciences, May2011, Vol. 42 Issue 2 An Exploration of Fisher's Framework for the Alignment of Supply Chain Strategy With Product Characteristics by Harris, Gregory A.; Componation, Paul J.; Farrington, Phillip A., Engineering Management Journal, Dec2010, Vol. 22 Issue 4 Alignment of Supply Chain Strategy with Business Strategy by Mitra, Amarnath; Bhardwaj, Sunil., IUP Journal of Supply Chain Management, Sep2010, Vol. 7 Issue 3 What's the buzz about moving from 'lean' to 'agile' integrated supplychains? A fuzzy intelligent agent-based approach by Jain, Vipul; Benyoucef, Lyes; Deshmukh, S. G., International Journal of Production Research, Dec2008, Vol. 46 Issue 23 Improving supply-chain collaboration by linking intelligent agents to CPFR by Caridi, M.; Cigolini, R.; De Marco, D., International Journal of Production Research, 2005, Vol. 43 Issue 20

Semester	IV	Specialization	Supply Chain Management
Course Code	404SCM	Type	Subject Core
Course Title	Knowledge Management in Supply Chains		

Course Objectives:	
1	To know Supply Chain Systems Classification
2	To understand the role of IT as an enabler of Supply Chain Management for today's businesses

Syllabus:

Unit Number	Contents	Number of Sessions
1	Supply Chain IT Framework: Supplier Relationship Management, Internal Supply Chain Management, Customer Relationship Management, Transaction Management Foundation	7 + 2
2	Supply Chain Information Systems: SC Information System classification, Requirement Analysis for Information Systems in SC, Information for Strategic SC decisions, Risks & Challenges in implementing SC Information Systems, Benefits of SC Information Systems	7 + 2
3	Digital Markets & Efficient Supply Chains: Web enabled Supply Chains, Technological impact of SC disintermediation, Reconfiguration of SC, Pure technology applications in SC, Process Improvements - technology adoption	7 + 2
4	E-Supply Chain Opportunities: E business & SCM – Upstream Perspective, B-2-B Perspective, E supply chain opportunities - e procurement, e fulfillment, auctions & reverse auctions, collaborative demand planning, intranets, extranets & VPN, Benefits to SMEs & MSMEs	7 + 2
5	Technology Standards: Overview of Information Technology infrastructure – interface devices, system architecture, e-commerce. Service oriented architecture – Introduction to ERP. Applications of Bar coding & scanning, RFID, EPOS, Global data synchronization, Image Processing, GPRS	7 + 2

Learning Resources:		
1	Text Books	Supply Chain & Logistics Management by Bowersox, Closs & Cooper, TMGH, 2 nd Edition. Supply Chain Management – Strategy, Planning and Execution by Sunil Chopra, Peter Meindl, D V Kalra, Pearson Education, 3 rd Edition Supply Chain Management Process, System & Practice by N.Chadrasekaran, Oxford, 1 st Edition Supply Chain Strategies: Customer Driven and Customer Focused by Tony Hines, Elsevier, 2008
2	Reference Books	Designing & Managing the SC – Concepts, Strategies & Case studies by Levi, Kaminsky et. al., TMGH, 3 rd Edition.
3	Supplementary Reading Material	New Directions in Supply Chain Management: Technology & Strategy Implementation by Tonya Boone and Ram Ganeshan, Jaico Publishing, 2007
4	Websites	www.supplychainmanagement.in
5	Journals	Explicating the Mediating Role of Integrative Supply Management Practices in Strategic Outsourcing: A case study analysis by Narasimhan, Ram; Narayanan, Sriram; Srinivasan, Ravi., International Journal of Production Research, Jan2010, Vol. 48 Issue 2 Intra-Organizational Perspectives On IT-Enabled Supply Chains by Singh, Nitin; Kee-hung Lai; Chen, T. C. E.. Communications of the ACM, Jan2007, Vol. 50 Issue 1 E-Enabled Closed-Loop Supply Chains by van Nunen, Jo A. E. E.; Zuidwijk, Rob A. California Management Review, Winter2004, Vol. 46 Issue 2 The Role of Trust and Collaboration in the Internet-enabled Supply Chain by Grossman, Martin., Journal of American Academy of Business, Cambridge, Sep 2004, Vol. 5 Issue 1/2

Semester	IV	Specialization	Supply Chain Management
Course Code	405SCM	Type	Subject - Elective
Course Title	Green Logistics and Supply Chains		

Course Objectives:

1	To sensitize the students to external costs of logistics and supply chains (climate change costs).
2	To analyze the environmental costs of logistics and how to deal with them effectively.
3	To highlight how different types of environmentally sustainable practices should be adopted at different stages of supply chains.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Environmental Sustainability & Green Logistics: Concept of Green Logistics, Green Logistics – Rhetoric & reality, Key drivers for greening of Logistics & Supply Chains, Benefits of Green Supply Chains	4 + 1
2	Environmental Costs of Logistics: Arguments for and against internalizing environmental costs of logistics, Monetary calculation of environmental costs, Concept of Carbon Credits, Guidelines for carbon foot printing, Carbon foot printing process, success factors in carbon foot printing, Carbon Auditing of Supply Chains	5 + 2
3	Reverse Logistics for Waste Management: Waste Management in the context of reverse logistics, Waste Treatment Legislation, Reuse & refurbishment markets and take back business models, Managing waste as a part of sustainable reverse process.	5 + 1
4	Public Policy and Green Supply Chains: Role of Government, Policy Measures, Energy Efficiency, Cutting Emissions.	5 + 1
5	Green Supply Chains: Case Studies on Green Initiatives by Manufacturers, Green Initiatives by Government & Non-Profit Organizations, Green Initiatives by Retailers, Green Initiatives by Consumers.	5 + 1

Learning Resources:

1	Text Books	Green Logistics – Improving the Sustainability of Logistics, Edited by McKinnon, Cullinane, Brown & Whiteing, Published by Chartered Institute of Logistics & Transport, UK.
2	Reference Books	Total Supply Chain Management by Basu & Wright, Elsevier, 1 st Ed.
3	Supplementary Reading Material	Greening the Supply Chain- A guide for Asian Managers by Purba Halady Rao, Response Books, 1 st Edition.
4	Websites	www.greenlogistics.org www.greenlogisticsforum.com
5	Journals	Why business needs to green the supply chain by Hoskin, Paul., University of Auckland Business Review, Autumn 2011, Vol. 13 Issue 1 How Green Are Your Supply Chains? By Crandall, Richard E., Industrial Management, May/Jun 2006, Vol. 48 Issue 3. Greening The Supply Chain: A New Initiative In India With Special Reference To Chhattisgarh by Ashraf, Gazala Yasmin; Raichoudhary, Arpita; Mukherjee, P. N.; Srivastava, R. K. Pranjana., The Journal of Management Awareness, Jan-Jun 2009, Vol. 12 Issue 1 The Economic Value of a Sustainable Supply Chain by Mefford, Robert N., Business & Society Review (00453609), Spring 2011, Vol. 116 Issue 1

Semester	IV	Specialization	Supply Chain Management
Course Code	406SCM	Type	Subject - Elective
Course Title	Enterprise Resource Planning		

Course Objectives:	
1	To help the student understand how a business works and how information systems fit into business operations.
2	To emphasize the cross functional integration aspects of a business.
3	To enable better managerial decision making through real time data integration and sharing.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Understanding Enterprise Resource Planning: Concept of Enterprise , Overview of Business Functions and Business Processes, Integrated Management Information, Business Modeling, Evolution of ERP; ERP and related technologies; Myths about ERP; Importance of ERP; Value creation in organizations through ERP; Benefits of ERP; Risk of ERP - People Issues, Process Risks, Technological Risks, Implementation Issues, Operation & Maintenance Issues; Managing risk in ERP projects.	5 + 1
2	ERP & Related Technologies: Business Process Reengineering, Data Warehousing, Data Mining, OLAP, PLM, SCM, CRM, GIS, ERP Functional Modules , Integration of ERP, Supply Chain, CRM.	5 + 1
3	ERP Implementation: Technological, Operational, Business Reasons for ERP implementation , ERP implementation Life Cycle – Objectives - Phases - Reasons for failure; Implementation challenges; ERP transition strategies - Big Bang Strategy, Phased Implementation, Parallel Implementation, Process Line Transition Strategy, Hybrid Transition Strategy, Strategy Choice; Success and failure factors of an ERP implementation; ERP implementation costs; Organization and working of ERP implementation team.	5 + 1
4	ERP Operations and Future Trends: Operation and maintenance of the ERP system; Maximizing the ERP system; ERP and e-business; Integration of ERP, internet and www; Future of ERP.	5 + 1
5	ERP Systems Processes and Management Control: Sales and Marketing; Accounting and Finance; Production and Material Management; Human Resource Management, Overview of an ERP product.	5 + 1

Learning Resources:		
1	Text Books	Enterprise Resource Planning by Leon, Alexis, TMH Publication, 2 nd Edition, 2008. Enterprise Resource Planning by Koul, Saroj, Galgotia Publishing, 2001. ERP Concepts and Practice by Garg, V. K. and Venkat Krishna N. K., PHI Publication, 1997.
2	Reference Books	Enterprise Resource Planning by Sumner, Mary, Pearson Education, 2006.
3	Supplementary Reading Material	ERP In Practice by Vaman Jagan, TMGH
4	Websites	www.oracle.com/ERP www.sap.com/ www.openerp.com/
5	Journals	Measuring System Performance of an ERP-based Supply Chain by Ho, Chrwan-Jyh., International Journal of Production Research, 2007, Vol. 45 Issue 6 Supply Chain Transformation byERPfor Enhancing Performance: An Empirical Investigation by Zong Dai., Advances in Competitiveness Research, 2008, Vol. 16 Issue 1 Coordination Strategies in an SaaS Supply Chain by Demirkan, Haluk; Cheng, Hsing Kenneth; Bandyopadhyay, Subhajyoti., Journal of Management Information Systems, Spring2010, Vol. 26 Issue 4

Semester	IV	Specialization	Supply Chain Management
Course Code	407SCM	Type	Subject - Elective
Course Title	Purchasing & Supplier Relationship Management - II		

Course Objectives:

1	To provide an in-depth understanding of the fundamentals surrounding purchasing in different contexts.
2	To make the students aware of the different demands placed on the purchasing and supply chain managers by business stakeholders.
3	To help the students understand the impact of purchasing on competitive success and profitability of modern day organizations.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Purchasing for Institutions & Government Organizations: Similarities and dissimilarities with industrial purchasing. Purchasing procedure, roles of purchasing. Products & services purchased, functions performed, Purchase Cycle, Establishing sources of supply, Contracts Administration, Internal & External Environmental factors	5 + 1
2	Purchasing of Services: Hidden Opportunities, Planning the statement of work, Writing the statement of work, Selecting service contractors, Compensating Service suppliers, Professional services, Technical services, Operating services, Contract administration, Develop a sound Procedure for Evaluation	5+ 1
3	Purchasing of Capital Equipment: Differences in the procurement of capital equipment - Nonrecurring purchases, Nature and size of Expenditure. Considerations in Source Selection –Operating Characteristics of equipment, Engineering features of equipment, Total economic analysis, Various qualitative considerations, Life cycle cost analysis, Role of Purchasing, Used / Second hand equipment Purchasing, Leased equipment– factors favouring leasing	5 + 1
4	Worldwide Sourcing - Creating a world class supply base: An overview of Worldwide Sourcing, Why source worldwide? Barriers to worldwide sourcing, Information about Worldwide sources, Supplier selection issues, Cultural understanding, Language and communication differences, Legal issues, Logistical issues, Organizational issues, Costs associated with Worldwide Sourcing, Managing international currency risk, Hedging – Spot & Forward Contracts, Progressing from International Purchasing to Global Sourcing, Differentiating factors between successful and less successful Global Sourcing Efforts, Benefits of global sourcing, Future Global Sourcing Trends	5 + 1
5	Performance Measurement & Evaluation: Why Measure Performance, Problems with Purchasing Measurement and Evaluation, Purchasing Measurement Categories – Price Performance Measures, Cost-Effectiveness Measures, Quality, Time related Measures, Technology Innovation Measures, Physical Environment and Safety, Asset Management and Integrated SC Measures, Administration and Efficiency Measures, Developing a Performance Measurement and Evaluation System - Determining which Performance Categories to Measure, Developing Specific Performance Measures, Establish Performance Objectives for each Measure, Finalize system Details, Implement and Review	5 + 1

Learning Resources:		
1	Text Books	Purchasing & Supply Chain Management by Monczka, Trent, Handfield, Thomson South Western, 3 rd Edition. Purchasing & Supply Chain Management by Lyons and Farrington, Pearson Education, 2010.
2	Reference Books	Purchasing & Supply Chain Management by Dobler, Burt, TMGH, 6 th Edition.
3	Supplementary Reading Material	Organizational Buying Behaviour by Webster and Wind, Prentice Hall, 1972
4	Websites	www.cips.org www.eipm.org
5	Journals	e Global Sourcing and Logistics Exercise: A Group Exercise to Demonstrate Basic Global Supply Chain Principles by Ashenbaum, Bryan., Decision Sciences Journal of Innovative Education, Sep2008, Vol. 6 Issue 2 Strategic Alliance-Based Global Sourcing Strategy for Competitive Advantage: A Conceptual Framework and Research Propositions by Murray, Janet Y., Journal of International Marketing, 2001, Vol. 9 Issue 4 Global sourcing in the auto industry by Bergmann, Markus; Mangaleswaran, Ramesh; Mercer, Glenn A., McKinsey Quarterly, 2004 Special Edition Pursuing competitive advantage through integrated global sourcing by Trent, Robert J.; Monczka, Robert M., Academy of Management Executive, May2002, Vol. 16 Issue 2

Semester	IV	Specialization	Supply Chain Management
Course Code	408SCM	Type	Subject - Elective
Course Title	Supply Chain Risk Management		

Course Objectives:

1	To help the students understand the pressures on managing the supply chain and their impact on supply chain's vulnerability to disruptions.
2	To introduce the principles of supply chain risk management.
3	To provide an understanding of the basics of identifying, defining and analyzing risks.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Basics of Risk Management: Risk & Management, Growth of risk Management, defining Risk, Features of Risk. Decisions & Risk, Decisions with certainty, uncertainty, risk, ignorance, Managing Risk	4 + 1
2	Risk in Supply Chain: Risks arising out of Trends affecting SC – Integration, Cost Reduction, Agile Logistics, E-Business, Globalization, Outsourcing, SC Risk Management – Aims, Steps & Principles	5 + 1
3	Identifying & Analyzing Risks: Types of Risks, Identifying Risks, Tools for analyzing past events, collecting opinions, analyzing operations, Measuring Risk, Likelihood of a risky event, Consequences of risk, Responding to risks, Alternative responses, defining the options & choosing the best response, Network View of Risk - Shared risks	5 + 2
4	Creating resilient SC: Design of a resilient SC, Principles of designing resilient SC, Physical features of a resilient SC, relationship within a resilient SC, Risk compensation & Business Continuity	5 + 1
5	Business Continuity Management: Emergencies & Crisis, Views of BCM & Steps in BCM	5 + 1

Learning Resources:		
1	Text Books	Supply Chain Risk Management by Donald Walters, Kogan Page, 1 st Edition.
2	Reference Books	The New Supply Chain Challenge: Risk Management in a Global Economy by Bosman R, FM Global, Johnston RI, 2006.
3	Supplementary Reading Material	Risk management for executives by Kendall R, FT Prentice Hall London, 1998.
4	Websites	www.disasterplan.com www.globalcontinuity.com www.riskinfo.com
5	Journals	Reconciling Supply Chain Vulnerability, Risk And Supply Chain Management by Peck, H., International Journal of Logistics: Research & Applications, Jun2006, Vol. 9 Issue 2 Sources of Supply Chain Disruptions, Factors That Breed Vulnerability, and Mitigating Strategies by Stecke, Kathryn E.; Kumar, Sanjay., Journal of Marketing Channels, Jul-Sep2009, Vol. 16 Issue 3 Drivers Of Supply Chain Vulnerability: An Integrated Framework by Peck, Helen., International Journal of Physical Distribution & Logistics Management, 2005, Vol. 35 Issue 4 A Conceptual Framework For The Analysis Of Vulnerability In Supply Chains by Göran Svensson., International Journal of Physical Distribution & Logistics Management, 2000, Vol. 30 Issue 9 Key Areas, Causes And Contingency Planning Of Corporate Vulnerability In Supply Chains: A Qualitative Approach by Svensson, Göran., International Journal of Physical Distribution & Logistics Management, 2004, Vol. 34 Issue 9 Managing Uncertainty - An Empirical Analysis Of Supply Chain Risk Management In Small And Medium-Sized Enterprises by Thun, Jorn-Henrik; Druke, Martin; Hoenig, Daniel., International Journal of Production Research, Sep2011, Vol. 49 Issue 18 Analyzing Risks In Supply Networks To Facilitate Outsourcing Decisions by Lockamy, Archie; McCormack, Kevin., International Journal of Production Research, Jan2010, Vol. 48 Issue 2

Semester	IV	Specialization	Supply Chain Management
Course Code	409SCM	Type	Subject - Elective
Course Title	Project Management		

Course Objectives:	
1	To make the students understand the complex issues in Project Management
2	To increase the understanding of project management tools and techniques
3	To teach the students the concepts and skills that are used by managers to plan projects, secure resources, budget, lead project teams to successful completion of projects.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Introduction to Project Management: Definition, functions, evolution of Project Management, classification of projects, Project management in different environments.</p> <p>The Project Management Systems, Methodologies & Systems Development Cycle: Systems approach, systems analysis, systems development, project feasibility, Project life cycle, project appraisal, project contracting, the phases of system development life cycle.</p>	5 + 1
2	<p>Project Feasibility Study: Developing a project plan, market and technical analysis, financial analysis evaluation of project proposals, risk analysis, sensitivity analysis, and social cost benefit analysis.</p> <p>Project Planning: Planning fundamentals, project master plan, work breakdown structure & other tools of project planning, work packages project organization structures & responsibilities, responsibility matrix.</p>	6 + 1
3	<p>PERT, CPM, Resource allocation: Tools & techniques for scheduling development, crashing of networks, time-cost relationship, and resource leveling multiple project scheduling.</p> <p>Cost Estimating Budgeting : Cost estimating process elements of budgeting, project cost accounting & management information systems, cost schedules & forecasts.</p>	5 + 1
4	<p>Managing Risks in Projects: Risk concept & identification, risk assessment, risk priority, risk response planning, risk management methods.</p> <p>Project Control: Information monitoring, internal & external project control, cost accounting systems for project control, control process, performance analysis, variance limits, and issues in project control.</p>	5 + 1
5	<p>Project Management Information System: Computer based tools, features of PMIS, using project management software, (MS Projects)</p> <p>Project Evaluation, Reporting & Termination: Project reviews & reporting, closing the contract.</p>	4 + 1

Learning Resources:		
1	Text Books	Effective Project Management by Clements and Gido, Thomson India Edition, 2007. Project Management : The Managerial Process by Gray and Larson, MGH, Special Indian Edition, 3 rd Edition Project Management for Business and Technology: Principles and Practice by John Nicholas, PHI – Eastern Economy Edition, 2 nd Edition.
2	Reference Books	Project Management – Core Text by Mantel, Meredith, Shafer, Sutton and Gopalan, 1 st Indian Edition
3	Supplementary Reading Material	Project Management: A Managerial Approach by Meredith, Mantel Wiley India, 6 th Edition. The Practice of Project Management by Freigenti and Comminos, Kogan Page
4	Websites	www.pmi.org.in/
5	Journals	Risk Analysis of Infrastructure Projects: A Case Study on Build-Operate-Transfer Projects in India by Maniar, Hiren., IUP Journal of Financial Risk Management, Dec2010, Vol. 7 Issue 4 Enercon India: Project Planning by Mukherjee, Saral; Raghuram, G., Vikalpa: The Journal for Decision Makers, Jan-Mar2007, Vol. 32 Issue 1 Critical Factors Affecting Schedule Performance: Evidence from Indian Construction Projects by Iyer, K. C.; Jha, K. N., Journal of Construction Engineering & Management, Aug2006, Vol. 132, Issue 8 What attributes should a project coordinator possess? by Jha, Kumar Neeraj; Iyer, Chandrashekhar K., Construction Management & Economics, Sep2006, Vol. 24 Issue 9 A Study of Critical Project Success Parameters in Different Organizational Conditions by Piyush, Mishra; Dangayach, G. S.; Mittal, M. L., Advances in Management, Aug2011, Vol. 4 Issue 8

Semester	IV	Specialization	Supply Chain Management
Course Code	410SCM	Type	Subject - Elective
Course Title	Supply Chain Performance Measurement		

Course Objectives:	
1	To understand various types of traditional performance measures of supply chain , their use and drawbacks
2	To introduce a select world class performance measures of Supply Chain
3	To understand the right metrics for a Supply Chain

Syllabus:

Unit Number	Contents	Number of Sessions
1	Performance Measurement along the Supply Chain: Relationship between Company Strategy & Supply Chain Metrics, Functional classification of Decision areas in SCM – Procurement, Manufacturing, Distribution, Logistics, Global	5 + 1
2	Traditional Approaches to Performance Measurement: Productivity Measures, Quality Measures, Customer Service Measures, Cost Measures, Drawbacks of Traditional Measures	5 + 1
3	World Class Performance Measures for Supply Chains: Balanced Scorecard, Activity Based Management & Costing, EVA (In depth discussion & analysis expected)	5 + 1
4	Process Driven Metrics: SCOR framework, EFQM (In depth discussion & analysis expected)	5 + 1
5	Building & Leveraging Metrics to drive Supply Chain Performance: All metrics are not equal, Establishing the right Metrics, Linking Metrics to overall strategic objectives, Insights through cause & effect guided analysis, Quantifying financial impacts of SC Metrics, Identifying corrective actions	5 + 1

Learning Resources:		
1	Text Books	Supply Chain Management Process, System & Practice by N. Chadrsekaran, Oxford, 1 st Edition Supply Chain Performance Measurement & Improvement Edited by Venkata Nimeesha Posa, ICFAI Press, 1 st Edition
2	Reference Books	New Directions in Supply Chain Management: Technology & Strategy Implementation by Tonya Boone and Ram Ganeshan, Jaico Publishing, 2007 Supply Chain Management by Mentzer, Response Books, 2007
3	Supplementary Reading Material	Principles of Supply Chain Management : A Balanced Approach by Joel Wisner, Keong Leong, Keah-ChoonTan, Cengage Learning.
4	Websites	http://www.supplychainmetric.com/
5	Journals	Supply Chain Performance Measurement: A Literature Review by ArzuAkyuz, Goknur; Erman Erkan, Turan., International Journal of Production Research, Sep2010, Vol. 48 Issue 17 On Measuring Company Performance within A Supply Chain by Martin, P. Richard; Patterson, J. Wayne., International Journal of Production Research, May2009, Vol. 47 Issue 9 Aligning Business Process Reengineering in Implementing Global Supply Chain Systems by the SCOR model by Wang, William Y. C.; Chan, H. K.; Pauleen, David J., International Journal of Production Research, Oct2010, Vol. 48 Issue 19

Semester	IV	Specialization	Supply Chain Management
Course Code	411SCM	Type	Subject - Elective
Course Title	Supply Chain Management - Financial Perspectives		

Course Objectives:	
1	To highlight the importance of cost management as a key to profitability and the key to successful supply chain networks.
2	To underline the role of cost management from a strategic perspective.
3	To teach the identification of key cost drivers and defined process of managing supply chain costs.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Pricing & Revenue Management in Supply Chain: Role of Pricing & Revenue Management in SC, Pricing and Revenue Management for - Multiple Customer Segments, Perishable Assets, Seasonal Demand, Bulk and Spot Contracts, Role of IT in Pricing & Revenue Management, Using Pricing and Revenue Management in Practice	5 + 1
2	Identifying Critical Costs in the SC: Concept of cost, Process Mapping, SC Cost flow, Selecting critical costs to be managed, Obtaining cost data – supplier provided data, internal data, Measuring Secondary & Tertiary Costs – Overview of Allocation based costing system, Management Based costing system	5 + 1
3	Defining Key cost Drivers & developing Strategic Options: Review of current cost drivers, selection of key cost drivers, Weighted value of cost drivers, Potential for improvement, Developing strategic options for selected cost drivers	5 + 1
4	Reducing, Eliminating or Changing activities that cause cost: Risk return model for choosing strategic options – Market driven, Standard, Critical & Danger Quadrants, Identifying constraints, Evaluating risks & benefits in SC cost management from stakeholders perspectives, prioritizing strategies for implementation	5 + 1
5	Implementation & Control for Cost Management In SC: Creating a Implementation Plan, Addressing Implementation Risks, Developing Contingency Plans, Selling the Plan to Stakeholders, Monitoring Performance, Documenting Savings, Qualitative Benefits, Sharing the learning process, Eternally improving & leveraging the process	5 + 1

Learning Resources:		
1	Text Books	Supply Chain Cost Management – Strategy, Planning & Operation by Sunil Chopra, Peter Meindl, D V Kalra, Pearson Education, 3 rd Edition.
2	Reference Books	Supply Chain Cost Management by Jimmy Anklesaria , JAICO Publishing, 1 st Edition
3	Supplementary Reading Material	Supply Chain Strategies – Customer Driven & Customer Focused by Tony Hines, Elsevier, 1 st Edition Supply Chain Management by Mentzer, Response Books, 2007
4	Websites	http://www.supplychaintoday.com/index.htm
5	Journals	A Total Cost/Value Model For SupplyChain Competitiveness by Cavinato, Joseph L., Journal of Business Logistics, 1992, Vol. 13 Issue 2 Pricing Management for a Closed-loop Supply Chain by Gu Qiaolun; Ji Jianhua; Gao Tiegang., Journal of Revenue & Pricing Management, Mar2008, Vol. 7 Issue 1 Strategic Cost Management in SupplyChains, Part 1: Structural Cost Management by Anderson, Shannon W.; Dekker, Henri C., Accounting Horizons, Jun2009, Vol. 23 Issue 2 Strategic Cost Management in SupplyChains, Part 2: Executional Cost Management by Anderson, Shannon W.; Dekker, Henri C., Accounting Horizons, Sep2009, Vol. 23 Issue 3

Semester	IV	Specialization	Supply Chain Management
Course Code	412SCM	Type	Subject - Elective
Course Title	Global Logistics		

Course Objectives:

1	To get acquainted with global dimensions of logistics management
2	To introduce basic operational aspects i.e. procedure, documentations & related legal aspects of global logistics
3	To sensitize students to basics of shipping line industry

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>1.1 Introduction to Global Logistics :International Logistics Development, International Trade Logistics Chain, Shipper's Logistics Requirements in trade, 7R's of Logistics Management, 5 P's of Logistics, International Commercial Terms – Use of Incoterms in a Contract, Incoterms Laws.</p> <p>1.2 Logistics and Documentation: Consular Invoice, Commercial Invoice, Certificate of Origin, certificate of Value, Bill of Lading, Cargo Manifest or Packing List, Health Certificate, Import license, Insurance Certificate, Export Declaration Forms.</p> <p>1.3 Transportation: Modes of transportation, Transport and Communication, Transport activities and Land Use, Transport, Energy and the Environment.</p> <p>1.4 Air Cargo: Transportation of goods through Air, Transportation Infrastructure, World Air Cargo growth, Benefits of Airfreight, Airport classification, International Airports of India, Types of Aircraft, Unit loading devices, Airport Charges, International Country Codes.</p>	5 + 1
2	<p>2.1 Carriage of Goods by Land: Motor Vehicles Act, 1988, Central Motor Vehicles Rules, 1989, Carriers Act, 1865 – Definition of common carrier, Scheduled and Non Scheduled Goods, Railways Act, 1989 – Railway's liability, Merits and Demerits of Railway Transportation, Railway Freight rates.</p> <p>2.2 Carriage of Goods by Sea & Ocean Freight & Freight Calculations: Ocean Shipping Methods, Ocean Freight or Tariff rates, Freight rates terminology used in international shipments, Freight surcharges, Freight Rebates, Conference Discounts, Contract Shippers, Weight or Measure in the Freight Cost Calculation, Freight Adjustments – Currency Adjustment Factor (CAF), Bunker Adjustment Factor (BAF).</p> <p>2.3 Types of Ships: Mail and Supply Ships, Expedition Ships, Coasters, Bulk Carriers, Tankers, Refrigerated Vessels and Reefers, Livestock carriers, LNG Carriers, Car Carriers, Container Ships, Heavy lift Vessels, Tugs, Ro-Ro Vessels.</p>	5 + 1
3	<p>3.1 Shipping Formalities: Booking Shipping Space, Conference Shipping, Non-conference Shipping, Charter Shipping, Charter Party, Shipping Storage, Ocean Shipping procedure.</p> <p>3.2 Shipping Intermediaries: Function and Roles of Custom Brokers, Freight Forwarders and Consolidators, Shipping Agents, Stevedores.</p> <p>3.3 The Major Port Trusts Act, 1963.</p> <p>3.4 Shipping Corporation of India: Products and Services, STS Lighthouse Operations</p>	5 + 1

4	<p>4.1 Major Ports in India: Present Policy, Privatization Policy, Indian Port Policy Reform, Major Ports in India – Chennai, Cochin, Ennore, JNPT, Kandla, Mormugao, Mumbai, Paradip, NMPT, Pipavav, Tuticorin, Visakapatnam.</p> <p>4.2 Important Sea Routes: Northern Sea route, North Atlantic Route, Mediterranean Route, Panama Route, Baltic Sea Route, Indian Ocean route, Cape Route, South Atlantic Route, North Pacific Route.</p> <p>4.3 International Chamber of Shipping</p> <p>4.4 World's Major Ports: Major Ports and Port codes, Seaports of the world.</p>	5 + 1
5	<p>5.1 Containerization: Origin of containerization, Origin of TEU, Container sizes - dimensions and capacity, Container Flavours, Swap Bodies, Other considerations, Registration, Container Classification numbers, Lift/Stacking fittings, Movement of containers, Recent Developments – Coltainer, Cargosprinter, Safety of container ships, Container Classification – General Cargo service, Specific cargo service, Unit Load Device, Rating – Tare Mass and Pay load of Containers, Marking and Identification of Containers. Benefits of containerization.</p> <p>5.2 Inland Container Depots & Container Freight Stations: Functions, Benefits, Requirements for successful ICD/CFS, Designs and Layout, Equipping the ICD/CFS, Procedures for approval and implementation. Concor – The Multimodal Logistics Professionals.</p>	5 + 1

Learning Resources:		
1	Text Books	Logistics Management for International Business – Text and Cases, by Sudalaimuthu and Anthony Raj, PHI, 2009 Edition. Global Operations and Logistics: Text and Cases by Dornier, Ernst, Fender and Kouvelis, Wiley India, 2006
2	Reference Books	Global Logistics – New Directions in Supply Chain Management, Edited by Donald Waters, Kogan Page, 5 th Edition
3	Supplementary Reading Material	Logistics in International Business by Rajiv Aserkar, Shroff Publishers, 2 nd Edition.
4	Websites	http://mhlnews.com/
5	Journals	Executive Insights: Global Logistics by Bowersox, Donald J.; Calantone, Roger J., Journal of International Marketing. 1998, Vol. 6 Issue 4, p83-93. Emerging Global Logistics Networks: Implications for Transport Systems and Policies by Tavasszy, L.A.; Ruijgrok, C. J.; Thissen, M. J. P. M., Growth & Change. Fall2003, Vol. 34 Issue 4, p456-472. 17p Logistics Industry Profile: Global , Logistics Industry Profile: Global. Dec2008, p1 –30

Semester	IV	Specialization	Supply Chain Management
Course Code	413SCM	Type	Subject - Elective
Course Title	Supply Chain Practices - II		

Course Objectives:	
1	To give a practical understanding of the practice of supply chain management in various sectors.
2	To give a practical understanding of the peculiarities of supply chain management practices in various sectors.

Syllabus:		
Unit Number	Contents	Number of Sessions
1	Supply Chains for Projects – Construction (Housing, Infrastructure), Power Plants, New Factories, etc.	NA
2	Supply Chains for Disaster Management.	NA
3	Virtual Supply Chains for Books, Electronic Goods, Music, Apparel, Tourism, etc.	NA
4	Supply Chains for SMEs and MSMEs.	NA
5	Global Supply Chains - PCs, Desktops, Luxury Cars, Toys, etc.	NA

* Field/Self Study under Faculty guidance.
 Students should work in groups of two each on any two Companies from the Sectors listed above. The Sectors should be from different groups.
 Students shall study various aspects of the SCM principles and practices as followed in these sectors. They should identify the peculiarities of the sector, map the supply chain in detail (identify the parties involved and their role in the supply chain), compare the top two players in each of these sectors and identify best practices, Prepare a summary evaluation of each sector studied.
 Students shall submit a structured detailed report based on the above parameters.
 The evaluation shall be made by a panel of two examiners. One of the examiners shall be the Internal Faculty. The other examiner may be an external faculty or a person from the relevant industry. The evaluation shall be based on the following criteria:
 Report – 20 Marks
 Presentation – 15 Marks
 Question & Answer – 15 Marks

Learning Resources:		
1	Text Books	Logistics and Supply Chain Management- Cases and Concepts – G Raghuram, N Rangaraj, Macmillan India, 1 st Edition International Supply Chain Management by David and Stewart, Cengage Learning, 2007. Global Operations and Logistics: Text and Cases by Dornier, Ernst, Fender and Kouvelis, Wiley India, 2006 Supply Chain Management – A Managerial Approach by Amit Sinha & Herbert Kotzab, TMGH, 1 st Edition.
2	Reference Books	Global Logistics – New Directions in Supply Chain Management, Edited by Donald Waters, Kogan Page, Fifth Edition
3	Supplementary Reading Material	Supply Chain Management in the 21st Century Editor by B S Sahay, Macmillan, 2006 reprint.
4	Websites	http://www.gsb.stanford.edu/scforum/
5	Journals	Relaxing channel separation: Integrating a Virtual Store into the Supply Chain via Transshipments by Seifert, Ralf W.; Thonemann, Ulrich W.; Sieke, Marcel A., IIE Transactions, Nov2006, Vol. 38 Issue 11 Interorganizational Governance Value Creation: Coordinating for Information Visibility and Flexibility in Supply Chains by Wang, Eric T. G.; Wei, Hsiao-Lan., Decision Sciences, Nov2007, Vol. 38 Issue 4 Virtual Integration and Information Risks: A Supply Chain Perspective by Faisal, Mohd Nishat; Banwet, D. K.; Shankar, Ravi., IIMB Management Review An Analysis on Application of Lean Supply Chain Concept for Construction Projects by Baladhandayutham, T.; Venkatesh, Shanthi., Synergy, Jan2012, Vol. 10 Issue 1 Simulating the Impact of Supply Chain Management Practice on the Performance of Medium-sized Building Projects by Hatmoko, Jati Utomo Dwi; Scott, Stephen., Construction Management & Economics, Jan2010, Vol. 28 Issue 1 Aligning Business Process Reengineering in Implementing Global Supply Chain Systems by the SCOR model by Wang, William Y. C.; Chan, H. K.; Pauleen, David J., International Journal of Production Research, Oct2010, Vol. 48 Issue 19 Managing information flow in construction Supply Chains by Titus, Silas; Bröchner, Jan., Construction Innovation, Sage Publications, Ltd. , Jun2005, Vol. 5 Issue 2

**MBA SYLLABUS: SEMESTER IV
RURAL and AGRIBUSINESS MANAGEMENT - SPECIALIZATION**

University of Pune

Semester	IV	Specialization	Rural & Agribusiness Management
Course Code	403RABM	Type	Subject – Core
Course Title	Rural Credit and Finance		

Course Objectives:

1	To help students to understand various facets of agricultural credit in Indian rural market
2	To motivate students to know the relationship between and the institutional structural bodies and their linkages with rural credit.
3	To initiate students into the world of Micro Financial Institutions and their interventions in the rural finance

Syllabus:

Unit Number	Contents	Number of Sessions
1	Role and Characteristics of Indian Agriculture :Introduction, Role of Agriculture in Economic Development, Characteristics of Indian Agriculture.	3 + 2
2	Critical Review of Agricultural Finance :Role of Credit in Agriculture, Agricultural Finance in India, Classification of Agricultural Finance, Significance of Co-op. Credit, Some Issues of the Present System. Financial Intermediaries In Agriculture : Functions, Structure and Performance.	9 + 2
3	Cooperative Banks : Concept and special features of co-operative banking, Structure of co-operative credit system in India, Primary Level Credit Institutions (PACs, LAMPs, MPCs, FSS) their functioning and problems, District Central Cooperative Banks Structure and functions , Apex Co-operative Banks Structure and functions , Impact of liberalization on Co-operative Banks with particular reference to de regulation of interest rates and prudential norms.	8 + 2
4	Theories of Agricultural Finance :Risk and Uncertainty Theory, Demand and Supply Theory, Business Vs. Social and Moral Theory, Cost Theory, Productive Vs. Consumption , – The concept of 3 C's, 7 P's and 3 R's of credit, Credit Analysis, Kind Loans Vs. Cash Loans, Principle of Micro- and Macro-Finance, Principle of Supervised Credit, Principle of Crop Loan, Principle of Co-op. Credit, Principle of Better Credit.	8 + 2
5	Rural Finance and Microfinance : Players and Approaches; Microfinance & Rural Finance – Lessons from microfinance and historical interventions, Rural finance: approach, delivery channels and actors involved, and linkages, Triangle of microfinance and the role of BDS in rural finance.	7 + 2

Learning Resources:		
1	Text Books	Agricultural Development Rural Credit And Problems Of Its Recovery, By A. Ranga Reddy, Mittal Publications
2	Reference Books	Theories of Agricultural Finance, Jugale, Atlantic Publishers Barry, P.J., and P.N. Ellinger. Financial Management in Agriculture. 7th ed. Pearson Education, Inc., 2012. Ross, S.A., R.W. Westerfield, B.D. Jordan. "Essentials of Corporate Finance. The McGraw-Hill/Irvin, 2011. Keown, A.J., J.D. Martin, J.W. Petty, and D.F. Scott. Foundations of Finance. 7th ed. Prentice Hall, 2010.
3	Supplementary Reading Material	Innovations in Rural and Agriculture Finance – International Food Policy Research Institute (http://www.ifpri.org/sites/default/files/publications/focus18.pdf)
4	Websites	Ministry of Statistics and Programme Implementation Reserve Bank of India Agricultural Finance Corporation Limited (AFCL)
5	Journals	Agribusiness – An International Journal Decision Indian Cooperative Review Indian Journal of Agricultural Economics Indian Journal of Agricultural Marketing Indian Journal of Finance Indian Management Studies Journal Journal of Agri-business Management Review Prabandhan Vikalpa

Semester	IV	Specialization	Rural & Agribusiness Management
Course Code	404RABM	Type	Subject – Core
Course Title	Rural Marketing II		

Course Objectives:

1	To objective of this course is to develop understanding regarding issues in rural marketing mix.
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Syllabus:

Unit Number	Contents	Number of Sessions
1	Product Strategy: Product decisions, product classifications, product strategy levels, significance of product strategy, product strategies : assessment of acceptability, product design decisions, types of product strategies, product innovation strategies, customer value strategies, product identity strategies – branding, product identity strategies – packaging, brand building strategies, product lifecycle strategies, fighting fakes.	7 + 2
2	Pricing Strategy: Concept and significance, pricing objectives, pricing policy, pricing strategy – <i>the affordability challenge, rural versus urban, needs integrated approach</i> , pricing for the <i>quality conscious segment, value conscious segment and price conscious segment</i> , Pricing and environmental factors, pricing for competition, pricing by retailers, pricing and product lifecycle .	7 + 2
3	Distribution Strategy: Distribution – The Availability Challenge, Distribution Practices, Distribution Trends, Rural Logistics, Rural Coverage Decision, Geographical Information System for Planning Rural Coverage, Distribution decision – Direct Versus Indirect, Direct Marketing, Indirect Marketing.	7 + 2
4	Rural Retailing: The rise of organized retailing, types of retail outlets, role of retailers, rural malls, Government initiated retail outlets, entrepreneur founded malls, agri company retail outlets, retail outlets of petro-chemical companies, retailing by urban players, PPP models, E Tailing, Training Retailers.	7 + 2
5	Promotion Strategy: IMC – Concept and Management Awareness and Motivation Challenge, Objectives and Framework of IMC, Promotional Mix, Communication Process, Communication Media, Designing the Communication Strategy, IMC Strategy, Rural Advertising.	7 + 2

Learning Resources:		
1	Text Books	Rural Marketing – Text and Cases, Krishnamacharyulu and Ramakrishnan, Pearson Rural Marketing – Concept and Practices, Dogra and Ghuman, TMGH
2	Reference Books	Rural Marketing, Velayudhan, Sage Rural Marketing, Gopaldaswamy, Vikas Publishing house Rural Marketing, Badi and Badi, Himalaya Publishing House
3	Supplementary Reading Material	Rural Marketing in India, Habeeb - ur – Rahman, Himalaya Publishing House Rural Marketing Text and Cases, S L Gupta, Wisdom Publications Cases in Rural Marketing, Krishnamacharyulu, Pearson Indian Rural Markets and Marketing Practices - Recent Developments, Gopalan and Mueen, ICFAI University Press Rural Marketing, Bir Singh, Anmol Publication Rural Marketing - Concept and Cases, Edited by ParthaSarathy, ICFAI University Press A new approach to rural marketing, Sircar, Himalaya Publishing House Rural Marketing - focus on agricultural inputs, Sukhpal Singh, Vikas Publishing house Agricultural Communications, Boone, Meisenbach and Tucker, Surjeet Publications. Agricultural Marketing in India, Acharya and Agarwal, Oxford and IBH Publishing New Perspectives in Rural Agricultural Marketing, Ramkishen, Jaico Rural Agriculture and Marketing, Verma, Jiloka and Mandal, Deep and Deep Publications
4	Websites	http://market.ap.nic.in/ agmarknet.nic.in/ http://www.rbi.org.in/home.aspx
5	Journals	Agribusiness – An International Journal Decision Indian Journal of Agricultural Marketing Indian Journal of Marketing Indian Management Studies Journal Journal of Agri-business Journal of Marketing Management Journal of Marketing Research Journal of Sales Management Management Review Prabandhan Vikalpa

Semester	IV	Specialization	Rural & Agribusiness Management
Course Code	405RABM	Type	Subject – Elective
Course Title	Rural Development – II		

Course Objectives:

1	To help students understand various aspects of Rural Development in India
2	To make students know the challenges in rural development and the importance of monitoring and people's participation in rural projects

Syllabus:

Unit Number	Contents	Number of Sessions
1	Planning for Rural Development: Levels and Functions of Planning, Decentralization of Planning, Methodology of Micro level Planning, Methodology for Block and District Level Planning.	5 + 1
2	Organizing for Rural Development: Organizational Models, the search for a new paradigm, criteria for designing an appropriate organization, Government Organizations, Panchayati Raj Institutions (PRIs), Cooperatives, Voluntary Agencies/Non-Governmental Organizations, Corporations and Rural Development.	5 + 1
3	Financing Rural Development: Domestic Institutional Sources, the role of non – institutional agencies, deficit financing or controlled inflation, foreign sources of funds.	5 + 1
4	Implementation, Monitoring and Evaluation: Project Implementation, Project Control, Integration and Coordination, People's Participation in Implementation, Project Monitoring, Project Evaluation.	5 + 1
5	Poverty and Unemployment Eradication Programmes: Current Poverty Scenario and Trends, Rural Employment Scenario, Poverty and Unemployment Alleviation Programmes, Social Welfare – oriented programmes (SWOP) Natural Resources and Infrastructure Development Programmes: Natural Resources based Programmes, National Agriculture Insurance Scheme (NAIS), Infrastructure Development Programmes.	5 + 1

Learning Resources:

1	Text Books	Rural Development, Katar Singh, Sage Rural Transformation - Infrastructure and Micro Finance, Bhargava and Deepak Kumar, ICFAI University Press
2	Reference Books	Agriculture and Rural Development in India, Smita Patel, Paradise Publishers
3	Supplementary Reading Material	Rural Development – Planning Commission of India (http://planningcommission.nic.in/plans/stateplan/sdr_punjab/sdrpun_ch5.pdf)
4	Websites	http://www.irri.org/ http://www.fao.org/index_en.htm http://www.dahd.nic.in/dahd/default.aspx
5	Journals	Agribusiness – An International Journal Decision Indian Cooperative Review Indian Journal of Agricultural Economics Journal of Agri-business Management Review Prabandhan Vikalpa

Semester	IV	Specialization	Rural & Agribusiness Management
Course Code	406RABM	Type	Subject – Elective
Course Title	Special Areas in Agro produce Management		

Course Objectives:

1	To explore the students to the Special Areas in Rural Marketing Environment
2	To help students to understand opportunities and emerging challenges in the upcoming rural markets .

Syllabus:

Unit Number	Contents	Number of Sessions
1	Management of Biotech Industries : Agricultural needs & application of biotechnology for agricultural uses and benefits; tissue culture, their structure, quality parameters, marketing, Intellectual Property Rights and legal implications.	5 + 1
2	Management of Floriculture and Landscaping : Recent advances in floriculture industry; evolution of new cultivators and production technology of ornamental plants; landscape gardening; style of gardening, commercial cultivation of flower crops storage of Aromatic and Medicinal oils and perfumes; storage and packing of cut flowers determining optimum time harvesting of flowers for export and home use.	5 + 1
3	Feed Business Management : Role of management in feed manufacturing industry, organizing and planning feed manufacturing unit, quality control of raw material and finished products, cost analysis and pricing decisions.	5 + 1
4	Fruit Production and Post-harvest Management – Present status of fruit industry in India and emerging scenario; major fruit growing zones, management of fruit production technology for domestic and global market; post-harvest handling technology harvesting, pre-cooling, grading, packing, storage and transportation for cooling, grading, packing, storage and transportation, pre and post-harvest management for quality and shelf life; fruit processing industry; international trade in fruits problems and prospects and global marketing of fruits, and government policy, incentives domestic and global trade.	5 + 1
5	Visit to Poultry / Hatchery / Emu Breeding / Piscicultural farm and preparing a report on management of the same.	5 + 1

Learning Resources:		
1	Text Books	Gopalakrishnan, C.A. and G.M.M. Lal - Livestock and Poultry enterprises for Rural Development Vikas Publishing House
2	Reference Books	Floriculture, Landscaping and Turf Management: Production and Management Strategies, Alagarsamy Nithya Devi, Alagarsamy Ramesh Kumar, Valliappan Lakshmanan, Lambert Academic Publishing Poultry Production in Hot Climates, N. J. Dagher, Successful Poultry Management 2 nd edition, By Morley Allan Jull, Biotech Books Postharvest Management And Value Addition By Ashwani Kumar Goel, Rajinder Kumar, Satwinder Singh Mann, Daya Publishing House Handbook of Fruits and Fruit Processing, edited by Y. H. Hui, Blackwell Publishing
3	Supplementary Reading Material	Floriculture A Sector Study – Export Import Bank of India (http://www.eximbankindia.com/op/OP%20112%20Floriculture%20[Full%20Report].pdf) Product – Market Identification for Exports of Fruits & Vegetables – Government of India (http://agritrade.iift.ac.in/html/Training/Product%20study/Fruits%20&%20Vegetables.pdf)
4	Websites	http://mofpi.nic.in/ http://www.dahd.nic.in/dahd/default.aspx http://plantquarantineindia.org/
5	Journals	Agribusiness – An International Journal Indian Journal of Agricultural Marketing Indian Journal of Marketing Indian Management Studies Journal Journal of Agri-business Journal of Marketing Management Journal of Marketing Research Journal of Sales Management Vikalpa

Semester	IV	Specialization	Rural & Agribusiness Management
Course Code	407RABM	Type	Subject – Elective
Course Title	Commodity Markets – II		

Course Objectives:

1	To introduce the concept of commodity markets.
2	To develop an understanding about the functioning of Commodity Exchanges.
3	To develop an understanding about the price movements of Commodities.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Trading on Commodity Exchanges: The exchange platform, exchange membership, commodity brokerage, participants in commodity markets, market positions, order types, access to commodity exchanges. Clearing and Settlement on Commodity Exchanges: Risks in commodity markets, the commodity clearing house, margining method, the settlement process, warehousing and warehouse receipts, the delivery process, distinctive features of commodity futures, markets, the lifecycle of a commodity futures contract	5 + 1
2	Commodity Futures Pricing: The commodity futures contract, pricing of futures, carrying cost, futures spot convergence, price relationships Commodity Futures Applications: Futures for the hedger, mismatches in basis and basis risk, futures for the speculator, spreads, futures for the arbitrageur	5 + 1
3	Commodity Options: Working of option, buying options, the arithmetic of option premiums, the option Greeks, selling options, pricing options, exotic options Commodity Options Applications: Options for hedging, options for speculating, advanced option trading strategies, commodity trading strategies : Round up	5 + 1
4	Commodities : An Emerging Investment Class: The investment rationale, investing in commodities, commodity indices, risks and challenges of commodity investing.	5 + 1
5	Fundamental and Technical Analysis of Commodities: The law of demand, the law of supply, supply – demand relationship, equilibrium price and disequilibrium. Basic concepts of fundamental analysis and technical analysis. Students should work in groups of 5 each. They should collect commodity prices traded on any commodity exchange and carry out its technical analysis. They should also carry out a fundamental analysis of the same commodity.	5 + 1

Learning Resources:		
1	Text Books	Commodity Markets – Operations, Instruments and Applications by Chatnani, TMGH Commodity Derivatives by Indian Institute of Banking & Finance, Macmillan
2	Reference Books	Commodity Options: Trading and Hedging Volatility in the World's Most Lucrative Market, Carley Garner & Paul Britain, Pearson Agricultural Commodity Markets: A Guide to Futures Trading, By Michael Atkin, Routledge Agricultural Commodity Markets And Trade: New Approaches to Analyzing Market and Trade, By Dr. Alexander Sarris, David Hallam, Edward Elgar Publishing
3	Supplementary Reading Material	Understanding Agricultural Commodity Markets – EPW - December 29, 2012, Vol xvii no 52 Leuthold RM, Junkus JC & Cordier JE. 1989. <i>The Theory and Practice of Futures Markets</i> . Lexington Books. Lofton T. 1993. <i>Getting Started in Futures</i> . 3rd Ed. John Wiley & Sons, 1993.
4	Websites	www.indiabudget.nic.in/ www.commodityonline.com/ in.reuters.com/finance/commodities
5	Journals	Agribusiness – An International Journal Decision Indian Journal of Agricultural Economics Indian Journal of Finance Indian Management Studies Journal Journal of Agri-business Management Review Prabandhan Vikalpa

Semester	IV	Specialization	Rural & Agribusiness Management
Course Code	408RABM	Type	Subject – Elective
Course Title	Agricultural Marketing and Price Analysis – II		

Course Objectives:

1	To critically analyze the important marketing concepts, models, properties of agricultural commodity prices and forecasting, data collection and analysis using current software etc., in order to make them policy decisions in the field of agricultural marketing.
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Syllabus:

Unit Number	Contents	Number of Sessions
1	Importance of market analysis in the agricultural system - types of marketing advantages and disadvantages - quantitative estimation - the distinguishing characteristics and role of agricultural prices - data sources for agricultural products and prices - software used in market analysis.	5 + 1
2	Role of various formal institutions in agricultural marketing - and functions - measuring their efficiency - public - private partnership – institutional arrangements. Successful case studies. Multi market estimation, supply response models. Market integration and price transmission - supply / value chain management. GAP analysis. Current trends in information in the changing agrifood system.	5 + 1
3	Agricultural commodity marketing - spot and futures- marketing of derivatives- speculation, hedging, swap, arbitrage etc. commodity exchanges - price discovery and risk management in commodity markets- Regulatory mechanism of futures trading.	5 + 1
4	Estimation of demand/ supply forecasting, supply chain / value chain analysis for different commodities - Commodity models- multi market estimation- time series analysis - market integration studies- price discovery price volatility estimation - commodity price forecasting using econometric software.	5 + 1
5	Students should work on a group project of collecting information about agricultural prices of select commodities and using spreadsheet based software or any other appropriate software build a forecasting model.	5 + 1

Learning Resources:		
1	Text Books	Ferris JN. 1998. <i>Agricultural Prices and Commodity Market Analysis</i> . McGraw-Hill. Goodwin JW. 1994. <i>Agricultural Price Analysis and Forecasting</i> . Wiley.
2	Reference Books	Hallam D. 1990. <i>Econometric Modeling of Agricultural Commodity Markets</i> . New Routledge. Martimort D. (Ed.). 1996. <i>Agricultural Markets: Mechanisms, Failures, and Regulations</i> . Elsevier.
3	Supplementary Reading Material	Schrimper RA. 2001. <i>Economics of Agricultural Markets</i> . Pearson. Timmer CP. 1986. <i>Getting Prices Right</i> . Cornell University Press. Tomek WG & Robinson KL. 2003. <i>Agricultural Product Prices</i> . 4th Ed. Cornell University Press.
4	Websites	http://market.ap.nic.in/ agmarknet.nic.in/
5	Journals	Agribusiness – An International Journal Decision Indian Journal of Agricultural Economics Indian Journal of Agricultural Marketing Indian Journal of Finance Journal of Agri-business Management Review Prabandhan Vikalpa

Semester	IV	Specialization	Rural & Agribusiness Management
Course Code	409RABM	Type	Subject – Elective
Course Title	Agricultural Finance and Project Management		

Course Objectives:

1	To impart knowledge on issues related to lending to priority sector credit management and financial risk management.
2	To acquaint the learner with course would bring in the various appraisal techniques in project - investment of agricultural projects.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Role and Importance of Agricultural Finance: Agricultural Finance- meaning, Financial Institutions and credit flow to rural/priority sector. Agricultural lending – Direct and Indirect Financing - Development of Rural Institutional Lending - Branch expansion, demand and supply of institutional agricultural credit and Over dues and Loan waiving.</p> <p>Role of Cooperatives: Financing through Co-operatives, NABARD and Commercial Banks and RRBs. Lead Bank Scheme District Credit Plan and lending to agriculture/priority sector. Micro-Financing and Role of MFI's - NGO's, and SHG's.</p>	5 + 1
2	Lending to farmers: Lending to farmers, Estimation of Technical feasibility, Economic viability and repaying capacity of borrowers and appraisal of credit proposals.	5 + 1
3	Project Approach: Project Approach in financing agriculture. Financial, economic and environmental appraisal of investment projects. Identification, preparation, appraisal, financing and implementation of projects.	5 + 1
4	Project Appraisal Techniques: Project Appraisal techniques – Undiscounted measures. Time value of money – Use of discounted measures - B-C ratio, NPV and IRR. Agreements, supervision, monitoring and evaluation phases in appraising agricultural investment projects.	5 + 1
5	<p>Risks in financing agriculture: Risk management strategies and coping mechanism. Crop Insurance programmes – review of different crop insurance schemes – yield loss and weather based insurance and their applications.</p> <p>Case Study Analysis of an Agricultural project, Financial Risk and risk management strategies – crop insurance schemes, Financial instruments and methods – E banking, Kisan Cards and core banking.</p>	5 + 1

Learning Resources:		
1	Text Books	Dhubashi PR. 1986. <i>Policy and Performance - Agricultural and Rural Development in Post Independent India</i> . Sage Publishing Muniraj R. 1987. <i>Farm Finance for Development</i> . Oxford & IBH Publ.
2	Reference Books	Gupta SC. 1987. <i>Development Banking for Rural Development</i> . Deep & Deep Publishers
3	Supplementary Reading Material	Little IMD & Mirlees JA. 1974. <i>Project Appraisal and Planning for Developing Countries</i> . Oxford & IBH Publishers Gittinger JP 1982. <i>Economic Analysis of Agricultural Projects</i> . The Johns Hopkins Univ. Press.
4	Websites	http://www.eximbankagro.com/ http://www.rbi.org.in/home.aspx http://planningcommission.nic.in/
5	Journals	Agribusiness – An International Journal Indian Journal of Finance Journal of Agri-business Management Review Prabandhan Vikalpa

Semester	IV	Specialization	Rural & Agribusiness Management
Course Code	410RABM	Type	Subject – Elective
Course Title	Management of Agricultural Input Marketing		

Course Objectives:

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| 1 | To develop an understanding of the peculiarities of marketing in the context of agricultural inputs. |
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Syllabus:

Unit Number	Contents	Number of Sessions
1	Agricultural input marketing : Agricultural input marketing – meaning and importance; Management of distribution channels for agricultural input marketing; Agricultural Inputs and their types – farm and non-farm, role of cooperative, public and private sectors in agri-input marketing.	5 + 1
2	Seed Marketing: Seed- Importance of seed input; Types of seeds- hybrid, high yielding and quality seeds; Demand and supply of seeds; Seed marketing channels, pricing, export&import of seeds; Role of NSC and State Seed Corporation.	5 + 1
3	Fertilizers Marketing: Chemical Fertilizers- Production, export-import, supply of chemical fertilizers, Demand/consumption, Prices and pricing policy; subsidy on fertilizers; marketing system – marketing channels, problems in distribution; Role of IFFCO and KRIBCO in fertilizer marketing.	5 + 1
4	Electricity: Plant Protection Chemicals- Production, export/import, consumption, marketing system – marketing channels; Electricity/Diesel Oil-marketing and distribution system; pricing of electricity for agriculture use; subsidy on electricity.	5 + 1
5	Farm Machinery: Farm Machinery- Production, supply, demand, Marketing and distribution channels of farm machines; Agro-industries Corporation and marketing of farm machines / implements/equipments.	5 + 1

Learning Resources:		
1	Text Books	Acharya SS & Agarwal NL. 2004. <i>Agricultural Marketing in India</i> . 4th Ed. Oxford & IBH. Singh Sukhpal 2004. <i>Rural Marketing- Focus on Agricultural Inputs</i> . Vikas Publishing House.
2	Reference Books	Broadway AC & Broadway Arif A. 2003. <i>A Text Book of Agri-Business Management</i> . Kalyani. Singh AK & Pandey S. 2005. <i>Rural Marketing</i> . New Age.
3	Supplementary Reading Material	Rural Marketing, Velayudhan, Sage Rural Marketing, Gopaldaswamy, Vikas Publishing house Rural Marketing in India, Habeeb - ur - Rahman, Himalaya Publishing House Indian Rural Markets and Marketing Practices - Recent Developments, Gopalan and Mueen, ICFAI University Press Agricultural Marketing – New Trends and Techniques, K K Tiwari, D.N.D Publications
4	Websites	http://www.icar.org.in/ http://cacp.dacnet.nic.in/ http://vistar.nic.in/ www.nabard.org/
5	Journals	Agribusiness – An International Journal Decision Indian Journal of Agricultural Marketing Indian Journal of Marketing Indian Management Studies Journal Journal of Agri-business Journal of Marketing Management Journal of Marketing Research Journal of Sales Management Management Review Vikalpa

Semester	IV	Specialization	Rural & Agribusiness Management
Course Code	411RABM	Type	Subject – Elective
Course Title	Intellectual Property Management		

Course Objectives:

1	To create awareness about intellectual property rights in agriculture and related industries.
2	To provide an overview of management of patents, trademark, geographical indications, copy rights, designs, plant variety protection and biodiversity protection.
3	To provide inputs into Commercialization of Intellectual Property.

Syllabus:

Unit Number	Contents	Number of Sessions
1	World Trade Organization : World Trade Organization- Agreement on Agriculture (AoA) and Intellectual Property Rights (IPR) - Importance of Intellectual Property Management - IPR and Economic growth- IPR and Bio diversity -Major areas of concern in Intellectual Property Management - Technology Transfer and Commercialization-Forms of different Intellectual Properties generated by agricultural research.	5 + 1
2	Discovery versus Invention : Meaning of Discovery and Invention - Patentability of Biological Inventions - Method of Agriculture and Horticulture-procedure for patent protection: Preparatory work. Record keeping, writing a patent document, filing the patent document -Types of patent application-patent application under the Patent cooperation treaty (PCT).	5 + 1
3	Plant Genetic Resources : Plant genetic resources -Importance and conservation - Sui Generic System –Plant Varieties Protection and Farmers Rights Act- Registration of Extant varieties - Registration and protection of New Varieties / Hybrids / Essentially Derived Varieties - Dispute prevention and settlement -Farmers' Rights.	5 + 1
4	Trademark : Trademark- Geographical Indications of Goods and Commodities – Copy rights- Designs – Biodiversity Protection.	5 + 1
5	Procedures for Commercialization of Technology : Valuation, Costs and Pricing of Technology- Licensing and implementation of Intellectual Properties- Procedures for commercialization – Exclusive and non-exclusive marketing rights-Research Exemption and benefit sharing.	5 + 1

Learning Resources:

1	Text Books	Ganguli P. 2001. <i>Intellectual Property Rights –Unleashing the Knowledge Economy</i> . Tata McGraw Hill.
2	Reference Books	Gupta AK. 2003. <i>Rewarding Conservation of Biological and Genetic Resources and Associated Traditional Knowledge and Contemporary Grass Roots Creativity</i> . Indian Institute of Management, Ahmedabad.
3	Supplementary Reading Material	Khan SA & Mashelkar R. 2004. <i>Intellectual Property and Competitive Strategies in the 21st Century</i> . Kluwer Law International, The Hague.
4	Websites	www.managingip.com ipindia.nic.in/niipm/index.htm www.iasri.res.in
5	Journals	Decision Management Review Prabandhan Vikalpa

Semester	IV	Specialization	Rural & Agribusiness Management
Course Code	412RABM	Type	Subject – Elective
Course Title	Food Retail Management		

Course Objectives:

1	The objective of this course is to assist students in understanding the structure and working of food marketing system in India
2	To examine how the system affects farmers, consumers and middlemen
3	To illustrate the response of this dynamic marketing system to technological, socio-cultural, political and economic forces over time.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to International Food market : India's Competitive Position in World Food Trade, Foreign Investment in Global Food Industry, Retail management and Food Retailing, The Nature of Change in Retailing, Organized Retailing in India, E-tailing and Understanding food preference of Indian Consumer, Food consumption and Expenditure pattern, Demographic and Psychographic factors affecting Food Pattern of Indian Consumer.	5 + 1
2	Value Chain in Food Retailing : Value Chain in Food Retailing, Principal trends in food wholesaling and retailing, food wholesaling, food retailing, the changing nature of food stores, various retailing formats, competition and pricing in food retailing, market implications of new retail developments, value chain and value additions across the chain in food retail, food service marketing.	5 + 1
3	Food Retail Management : Food Retail Management, Brand Management in Retailing, Merchandise pricing, Pricing Strategies used in conventional and non-conventional food retailing, Public distribution system, Promotion mix for food retailing, Management of sales promotion and Publicity, Advertisement Strategies for food retailers.	5 + 1
4	Retail Operations : Managing Retail Operations, Managing Retailers' Finances, Merchandise buying and handling, Merchandise Pricing, Logistics, procurement of Food products and Handling Transportation of Food Products.	5 + 1
5	Retail Sales Management : Retail Sales Management Types of Retail Selling, Training of Salesperson, Evaluation and Monitoring, Customer Relationship Management, Managing Human Resources in retailing, Legal and Ethical issues in Retailing.	5 + 1

Learning Resources:		
1	Text Books	<i>Berman & Evans. 2008. Retail Management: A Strategic Approach. 10th Ed. Prentice Hall of India</i>
2	Reference Books	Cox. 2006. <i>Retailing: An Introduction</i> . 5th Ed. Pearson Edu. Levy M & Weitz BW. 2004. <i>Retailing Management</i> . 5th Ed. McGraw Hill.
3	Supplementary Reading Material	Organized Agri Food Retailing in India - NABARD (http://www.nabard.org/fileupload/DataBank/Publications/Nabard%20E%20Book.pdf)
4	Websites	http://market.ap.nic.in/ http://eands.dacnet.nic.in/latest_2006.htm http://cacp.dacnet.nic.in/ http://mofpi.nic.in/
5	Journals	Agribusiness – An International Journal Indian Journal of Agricultural Marketing Indian Journal of Marketing Indian Management Studies Journal Journal of Agri-business Journal of Marketing Management Journal of Marketing Research Journal of Sales Management Management Review Vikalpa

Semester	IV	Specialization	Rural & Agribusiness Management
Course Code	413RABM	Type	Subject – Elective
Course Title	Agri-Entrepreneurship		

Course Objectives:

1	To orient learners towards agri-entrepreneurship
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Syllabus:

Unit Number	Contents	Number of Sessions
1	Rural Entrepreneurship: Concept of rural entrepreneurship, Endowment of Skill sets and Natural resources in rural India, aims of rural entrepreneurship, barriers to entrepreneurship in rural India.	5 + 1
2	Skill Development: Process of entrepreneurship, rural applicability, skills required to succeed, Government training programmes and Public Private Partnership	5 + 1
3	Women Entrepreneurship: Primary goals for development, Women's role in economy, factors that support women's participation in rural entrepreneurship.	5 + 1
4	ICT and Rural Entrepreneurship: Rural ICT initiatives, Need to create rural ICT entrepreneurs, how IT is changing rural India, Rural BPO.	5 + 1
5	Case study; Corporate intervention and entrepreneurship Development.	5 + 1

Learning Resources:

1	Text Books	Entrepreneurship Development – Theories and Practices – By N.P.Singh
2	Reference Books	Projects : Profile and process – Vasant Desai Entrepreneurship and Technology – Vasant Desai Economic Environment in Business – By Misra and Puri Women Entrepreneurs – By Deepak Walokar
3	Supplementary Reading Material	Rural Entrepreneurship Development Programme in India – An Impact Assessment- NABARD (http://www.nabard.org/fileupload/DataBank/OccasionalPapers/Rural%20Entrepreneurs%20Develop[1].pdf)
4	Websites	www.icpd.org business.gov.in/agriculture/index.php www.ediindia.org
5	Journals	Agribusiness – An International Journal Decision Indian Management Studies Journal Journal of Agri-business Management Review Prabandhan Vikalpa

Semester	IV	Specialization	Rural & Agribusiness Management
Course Code	414RABM	Type	Subject – Elective
Course Title	Management of Agribusiness Cooperatives		

Course Objectives:

1	To provide the students an understanding about the agribusiness cooperative organizations and their management.
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Syllabus:

Unit Number	Contents	Number of Sessions
1	Cooperative administration- a global perspective, ecology of cooperative administration, cooperative sector and economic development.	5 + 1
2	Cooperative management- nature, functions and purpose of cooperatives – procurement, storage, processing, marketing, process of cooperative formation, role of leadership in cooperative management.	5 + 1
3	The state and cooperative movement, effects of cooperative law in management, long range planning for cooperative expansion, policy making.	5 + 1
4	Human resource management, placement and role of board of directors in cooperative management.	5 + 1
5	Overview of agribusiness cooperative – credit cooperatives, cooperative marketing, dairy cooperative; financing agribusiness cooperative.	5 + 1

Learning Resources:

1	Text Books	Akmat JS. 1978. <i>New Dimensions of Cooperative Management</i> . Himalaya Publishing House.
2	Reference Books	Ansari AA. 1990. <i>Cooperative Management Patterns</i> . Anmol Publishers Sah AK. 1984. <i>Professional Management for the Cooperatives</i> . VikasPublishingHouse.
3	Supplementary Reading Material	Agricultural Cooperatives: Key To Feeding The World – FAO (http://www.fao.org/fileadmin/templates/getinvolved/images/WFD2012_leaflet_en_lo w.pdf)
4	Websites	www.fao.org agriculture.indiabizclub.com
5	Journals	Agribusiness – An International Journal Decision Indian Cooperative Review Indian Journal of Agricultural Economics Indian Journal of Agricultural Marketing Journal of Agri-business Management Review Prabandhan Vikalpa

Semester	IV	Specialization	Rural & Agribusiness Management
Course Code	415RABM	Type	Subject – Elective
Course Title	Tourism Marketing – II		

Course Objectives:

1	To develop an understanding of the 4Ps of marketing in the context of Tourism.
2	To provide an overview of marketing strategy in the context of Tourism.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Tourism Product Strategy: Background, Product Strategy, Product Life Cycle, Modifying and Revitalizing the Product, Branding, Why ascribing a brand name? How to make the branding decisions? How to make a good brand name? The Reasons for product failure, Launching a New Product, Product Screening, A Package Tour, Formulating the Product Mix, Need of the Hour.	5 + 1
2	Tourism Pricing Strategy: Background, Pricing- the influencing Factors, Inter – Play of Price and Demand, Pricing Objectives, Pricing Policies, Pricing Strategies, Pricing Strategy During Different Stages, Discounting Price, Pricing and Product Mix , Pricing and Marketing Mix, Summary.	5 + 1
3	Tourism Distribution Strategy: Background , Marketing Channel – the Concept, Distribution Policy – Influence, The Chain of Distribution, The Distribution System, The Middlemen, Tour Operators, Travel Agents, Importance, Functions of Travel Agents, Opening a Travel Agency, Designing of Travel Agency Office, Travel Agency Commission, Management of Reservation, Travel Agents Organizations, Travel Guide, Channel Decisions in the Tourism Industry.	5 + 1
4	Tourism Promotion Strategy: Background, Word of Mouth Information, Personal Selling, Skill Needed for Selling, Sales Sequence, Tourism Advertising , Advertising Purpose in Tourism , Advertising Importance to Tourism, Advertisement Planning, Selection of Media, Selection of Message, Advertising Agencies, Testing Advertisement Effectiveness, Advertisement Campaign, Advertisement Strategy, Tourism Publicity, Public Relations, Sales Promotion, Techniques of Sales Promotion, Stages in Sales Promotion Decisions, Key Tools of Sales Promotion, Evaluating Sales Promotion Efforts, Tourism Promotion Strategy.	5 + 1
5	Overall Marketing Strategy for Tourism: Background, Overall Marketing Strategy, Formulation of Overall Marketing Strategy, The Selection of Marketing Inputs, Factors in Selecting the Marketing Strategy, Marketing Inputs Strategies, Evaluating of Overall Marketing Strategy through Marketing Audit.	5 + 1

Learning Resources:		
1	Text Books	Tourism Management, Anil Sharma, Essential Books, New Delhi Tourism and Travel Management, Biswanath Ghosh, Vikas Publishing House Pvt. Ltd. New Delhi Basic of Tourism Management, Suddhendu Mishra, Excel Books, New Delhi Starting a Tourism Company, Monika Prakash and Nimit Chowdhary, Matrix Publishers, New Delhi
2	Reference Books	Tourism Development Revisited: Concepts, Issues and Paradigms, Suteeshna Babu. S, Sitikantha Mishra, Biraj Bhusan Parida, Response Books New Delhi Tourism Management, Stephen J Page, Butterworth-Heinemann Oxford
3	Supplementary Reading Material	Foundations For Tourism Development, Jagmohan Negi, Galgotia Publishing Company, New Delhi Tourism Marketing, Tapan K Panda and Sitikantha Mishra, The ICFAI University Press, Hyderabad
4	Websites	www.agritourism.in/ www.agritourismworld.com
5	Journals	<u>International Journal of Contemporary Hospitality Management</u> <u>Tourism Review</u>

Semester	IV	Specialization	Rural and Agribusiness Management
Course Code	416RABM	Type	Subject – Elective
Course Title	Agriculture and WTO		

Course Objectives:

1	To provide an Overview of World Agricultural Trade
2	To develop an understanding of issues pertaining to International Agricultural Marketing.

Syllabus:

Unit Number	Contents	Number of Sessions
1	An Introduction to Agricultural Trade – Overview of World Agricultural Trade, India's Performance in Agricultural Exports and Imports. Theoretical Foundation of International Trade, Trade Policies of Importing and Exporting Countries, Trade Barriers, Market Size, Familiarization with Harmonized System of Codes and International Trade Databases	5 + 1
2	Instruments of Trade Policy –Definition of policy instruments of Tariffs, quotas, subsidies, etc. Preferential duties, Generalized system of preferences, Normal trade relations/most favored nation, Offshore Assembly Provisions/Production-Sharing arrangements, Effective rate of protection.	5 + 1
3	International Agricultural Marketing – Importance of Cultural Factors in International Trade, International Market Entry Strategies, Preparation For Export Price Quotation, Incoterms, Letter of Credit and Other system of payment	5 + 1
4	Agricultural Trade Policies – Concepts and Principles, Unilateral, bilateral, regional and multilateral trade policies, Special treatment of agriculture Trade tools and mechanisms, Defensive and offensive trade interest in agricultural trade Political Economy and Indian Trade Policy for Agricultural Products, European Union's Common Agricultural Policy (CAP) and U.S. 2002 Farm Bill	5 + 1
5	Competitiveness in Global Food Economy – Operational Issues for the Starting up an Export Business, Interaction with Exporter of Agricultural Products and Project Report Preparation and Presentation, Foreign Direct Investment and Processed Food Trade.	5 + 1

Learning Resources:

1	Text Books	International Trade in Agricultural Products, Michael R. Reed, Prentice Hall
2	Reference Books	Dynamics of International Trade and Economy: An Inquiry Into Emerging Markets, Rajagopal, Nova Science Publishing International Trade and Agriculture: Theories and Practices, Won W. Koo, P. Lynn Kennedy, Blackwell Publishing Agriculture and International Trade: Law, Policy and the WTO, Michael N. Cardwell, Margaret Rosso Grossman, C. P. Rodger, CABI Publishing
3	Supplementary Reading Material	The WTO Agreement Series (http://www.wto.org/english/res_e/booksp_e/agrmtseries3_ag_2008_e.pdf)
4	Websites	www.wto.org/english/tratop_e/agric_e/agric_e.htm ec.europa.eu/agriculture/wto/index_en.htm unctad.org/es/Docs/edmmisc232add32_en.pdf
5	Journals	Journal of International Trade Law and Policy Frontiers of Economics and Globalization,

MBA SYLLABUS: SEMESTER IV
FAMILY BUSINESS MANAGEMENT SPECIALIZATION

University of Pune

Semester	IV	Specialization	Family Business Management
Course Code	403FBM	Type	Subject – Core
Course Title	Essentials of Family Business Management – II		

Course Objectives:

1	To empower students with the understanding of Corporate Governance and Corporate Sustainability
2	To sensitise students to the issues at various stages (life Cycle) of the family business
3	To empower student to understand and handle such family issues

Syllabus:

Unit Number	Contents	Number of Sessions
1	Professionalizing the boardroom: the role of balanced board of directors: Ownership of an Enterprise Built to Last, Shareholder priorities, Responsibilities of shareholders to the company, Effective governance of the shareholder-firm relationship, Information, communication, and education of shareholders, Family Business Governance - Advisory Boards and Boards of Directors, Recruitment and selection, Compensation and motivation, The rubber stamp board, Making the transition, Establishing a well-balanced board, Board composition, Organizing the board. Effective working boards -Relationship with the family. Two-tier boards. The impact of Sarbanes-Oxley on the family business and its board.	7 + 2
2	Cousin companies: family governance in multigenerational family firms: Introduction, Evolution of family business ownership, Culture shock. Complexity in cousin companies - Family complexity, Ownership complexity. Responding to growing complexity - Ownership policies, Business policies, Family policies. Setting up a family governance process - Recording decisions- the family constitution. Structuring family governance - Family council, Boundaries between the board and the family council, The family assembly, The annual shareholders meeting, The family office, The top management team. Other governance entities, Roles and membership. Getting the structure working.	7 + 2
3	Managing succession: the leadership challenge: The succession paradox, Resistance to succession planning - The founder, The family, Employee and environmental factors. Leading the transition - Start planning early, Encourage intergenerational teamwork, Develop a written plan, Involve everyone and obtain outside help, Establish a training process, Plan for retirement, Decide when to retire and stick to it. Selecting the right successor - Whom to choose? What if no one fits the bill? Is the next generation good enough to run the business? Rewards and challenges for latter-generation family members, Next-generation attributes, interests, and abilities: ingredients for responsible leadership, Crafting the next-generation career plan, Sibling and cousin teams, A top management team, Managing interdependence, A vision for the company: taking it to the next level, Partnerships and a focus on the future, Incumbent generation leadership: governance and resolution of the past. Succession in older family businesses - Second to third generation, Third to fourth generation and beyond. New generation, new system, new culture.	7 + 2

4	<p>Transfer of Power and Building financial security and relinquishing control: The CEO as architect of governance, The transfer of power, The CEO as architect of succession and continuity, CEO exit style and the transfer of power, Promoting trust among family members in the process of transferring power, The unique roles of the CEO spouse, Role types of the CEO spouse and the transfer of power, Implications of CEO exit styles and CEO spouse roles for succession and the transfer of power.</p> <p>Building financial security -Money into or out of the business. Setting the business - A hard decision, Sale mechanics and Principle exit options. Passing down the business - Capturing values for later generations, Estate-planning principals, Treating heirs fairly. Ownership and control considerations - Life insurance, Splitting the company, Conditions attaching to ownership, Isolating voting control. Implementing the estate plan - Trusts and their uses, The benefits of life insurance</p>	7 + 2
5	<p>Change and Adaptation: The Future of Family Business, Continuity and culture, Changing the culture, New leaders of the evolution, The raw materials of a new culture, Three states of evolution - The future state, The present state, The transmission state. Continuity and family management ownership structures, Commitment planning, Institutionalizing the change, The future: can the family business compete and thrive? Agility in the face of change, Competition and value creation, Tapping the next generation, Thriving through competition, Organic competencies and the business's future, Intrapreneurship: Intergenerational growth in entrepreneurial families, Global opportunities, Positive-Sum dynamics through family and enterprise leadership, Family firm recourses for the future.</p>	7 + 2

Learning Resources:

1	Text Books	Family business: The essentials by Peter Leach, Profile books Ltd. Family Business by Ernesto J. Poza
2	Reference Books	Entrepreneurs: Talent, Temperament, Technique 2 nd Edition. By – Bolton, Bill and John, Thompson. Butterworth-Heinemann, MA. 2004. ISBN: 978-81-312-1366-7 Unleashing your Entrepreneurial Potential. By – Raghu Nanadan. Response Business Book from Sage, New Delhi.2009. ISBN: 978-81-7829-908-2
3	Supplementary Reading Material	Management of Succession in Family-Owned Business. Edited by Pramod Verma. The ICFAI University Press, Hyderabad. 2007. ISBN: 978-81-314-1185-8 Family Wars: Classic Conflicts in Family Business and How to Deal With Them. By - Grant Gordon and Nigel Nicholson. Kogan Page, London. 2008. ISBN: 978-0-7494-5457-9
4	Websites	-
5	Journals	Siblings and Succession in the Family Business, Warren D. Miller, HBR # 98108 Transferring Power in the Family Business, Louis B. Barnes and Simon A. Hershon, HBR # 76401 Conflicts That Plague Family Businesses, Harry Levinson, HBR # 71206

Semester	IV	Elective	Family Business Management
Course Code	404FBM	Type	Subject – Core
Course Title	Managing Innovation – II		

Course Objectives:

1	To expose students to the need of innovation vis-à-vis sustainability
2	To broaden the view of approaching problems and finding solutions

Syllabus:

Unit Number	Contents	Number of Sessions
1	Globalization for Innovation: Technological Uncertainty, Market Uncertainty, Endogeneity, Generic Strategies for World Wide Innovation, Strategic Choice – Balancing Cost & Innovation, Role of Complimentary technologies, Protecting Entrepreneurial Rents – Team Up , Block, Run. Methods of Globalization – Acquisitions and Mergers, Strategic Alliances, Licensing, Internal Development.	7 + 2
2	Innovation for Emerging Economies: Value Stock, Techno economic Factors – Economic Differences, Product Specificity. Entry Strategies – Reach for later stage of the Product Life Cycle, Reach Deeper into the Value Stock, Options Approach. Implementation – Technology Transfer, Commercialization, Establishing Co-opetitors.	7 + 2
3	Role of National Governments in Innovation: Why a Government Role? – Public Nature of Knowledge, Uncertainty, Public Complementary Assets, Network Externalities, Politics. Government Actions – Financing R & D, Lead User, Provider of Public Complementary Assets. Regulator, Macro-Economic Fundamentals, Baby-Sitter and Godfather, Educator, Information Centre and Provider of Political stability.	7 + 2
4	Innovation in Services: Service Organizations do Innovate, The Concept of Innovation in Services, Type of Innovation in services, The CI-3 Framework – Customer Intelligence, Customer Intimacy, Customer Innovation. Brand Asset Monitoring, Customer Satisfaction & Loyalty Measurement, Touch Points Data Management. Customer Blending, Customer Mind Mapping, Customer Ecosystem Mapping. Innovation Process, Magnet team. Product Forums. Benefits of the CI – 3 Frameworks.	7 + 2
5	Cases on Innovation: Business / Process innovations, Social Innovations, Organizational innovations. Overview of National Innovation Systems – Brazil Denmark, Singapore, USA, Japan.	7 + 2

Learning Resources:		
1	Text Books	Innovation Management, Allan Afuah, Oxford Indian Edition. Business Innovation in the 21 st Century, Praveen Gupta, S Chand. A Case Study Special on Innovation – Making Aspirations Count, Business World Publication. Innovation Management, Shlomo Maital and D V R Seshadri, Response Books, Sage Publications, New Delhi.
2	Reference Books	Adair on Creativity and Innovation Edited by Neil Thomas, Viva Books.
3	Supplementary Reading Material	Innovating at the Edge – How organizations Evolve and Embed Innovation Capability, Tim Jones, Butterworth-Heinemann, South Asian Edition. Managing Creativity & innovation, Harvard Business Essentials, Harvard Business School Press. The Innovator's Toolkit, Harvard Business Press. Fastback to Success Innovation, Andy Bruce and David Birchall, Prentice Hall - Financial Times. Getting to Innovation, Arthur B Van Gundy, and PHI – Eastern Economy Edition.
4	Websites	-
5	Journals	-

Semester	IV	Elective	Family Business Management
Course Code	405FBM	Type	Subject – Elective
Course Title	Creativity and Change in Organizations		

Course Objectives:

1	To sensitize student to critical thinking, nurturing team work and change
2	To prepare students for fostering entrepreneurial leadership and institutional culture

Syllabus:

Unit Number	Contents	Number of Sessions
1	The Process of Change, Creativity & Innovation: Organizational Change – Definition & Key Dimensions, Factors that Promote Change, Creativity & Innovation, Theories of Innovation and Levels & Types of Innovation, The age of Creativity, Creativity & National prosperity, Creative Industries & potential for growth.	5 + 2
2	The Individual – Promoting Critical Thinking: Cognitive factors - Implications for HRM, Personality Traits - Implications for HRM, Knowledge – Explicit & Implicit, Informal and Tacit, Knowledge for creativity - Implications for HRM, Motivation – Types of Motivation. The Group – Nurturing Team Work: Difference between groups and teams, Why do people join teams? Team Development process, Why do teams fail? Blind conformity, Group Think, Social loafing. Team Inputs - size, longevity, task, Knowledge, Skills and Abilities (KSAs), Resourcing of the team, Team composition. Team processes – Action processes. Brainstorming. Electronic Brainstorming. Nominal Group Technique (NGT). Trust – Conflict – Team cohesiveness. Moderators of Team Performance – Task Type, Task Leadership. Team outcomes.	5 + 2
3	The Leader – Promoting New Ideas at Work: Defining Leadership, Difference between Managers and Leaders, Ingredients of Leadership, Trait approaches to Leadership, Behavioural approaches to Leadership, Managerial Grid, Contingency theories – Fiedler model, Hersey Blanchard situational theory, Leader participation model, Push-Goal Theory. Transformational and transactional leadership. Charismatic and Visionary Leadership. Leading change, creativity & Innovation –Leadership –Leadership and change, Ingredients of leadership for creativity & Innovation. Challenges in leading for creativity & Innovation.	5 + 2
4	The Internal Environment – Orchestrating Structure, Systems and Resources; The Balanced Score Card – Value Creation and Performance management. Organizational Structure – work specifications, departmentalization, chain of command, span of control, centralization and decentralization, Formalization. Situational factors – Corporate Strategy, Organizational Size and Environmental uncertainty. Structural forms – Traditional and contemporary forms. Organizing for change, creativity and innovation - Goal Setting and reward Systems. Evaluation. Resources – Sufficient resourcing. Systems of Communication.	5 + 2

5	<p>Culture – Enabling & Constraining Creative Processes at Work: Organizational culture, Different Perspectives of Organizational culture, Can we manage Organizational culture? Culture as an important ingredient of Organizational Creativity. Norms that promote Creativity and Innovation, Norms that promote Implementation. Principles of creativity and innovation. Do strong, cohesive cultures hinder innovation?</p> <p>The Organization – Managing Process of Change: Change and Organizations, Change Drivers, People and Change, The problem of resistance, Organizational Development approach to change, Situational Approach to Change Management, Political process approach to change management, Processual perspective for understanding change. Studying change over time.</p>	5 + 2
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Learning Resources:		
1	Text Books	Managing Change, Creativity & Innovation, Constantine Andriopoulos and Patrick Dawson. Sage Publications.
2	Reference Books	Innovation Management, Allan Afuah, Oxford Indian Edition. Business Innovation in the 21 st Century, Praveen Gupta, S Chand. Innovation Management, Shlomo Maital and D V R Seshadri, Response Books, Sage Publications, New Delhi. Adair on Creativity and Innovation, Edited by Neil Thomas, Viva Books.
3	Supplementary Reading Material	Innovating at the Edge – How organizations Evolve and Embed Innovation Capability, Tim Jones, Butterworth-Hienemann, South Asian Edition. Managing Creativity & innovation, Harvard Business Essentials, Harvard Business School Press. The Innovator's Toolkit, Harvard Business Press. Fastback to Success Innovation, Andy Bruce and David Birchall, Prentice Hall - Financial Times. Getting to Innovation, Arthur B Van Gundy, PHI – Eastern Economy Edition.
4	Websites	- -
5	Journals	- -

Semester	IV	Specialization	Family Business Management
Course Code	406FBM	Type	Subject – Elective
Course Title	Accounting for Small Business		

Course Objectives:

1	To expose student to needs of Family business / small business Accounting and Finance
2	To prepare student to inventory, inventory control.
3	To expose student to risk management practices.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Small business accounting: Projecting and evaluating performance Why accounting matters to small business, Basic accounting concepts, business entity concepts, Going concern, Accounting Equations, What is a Cost? What is an Expense? Information Usefulness, Why does Accounting matter? Setting up an Accounting system, Financial reports, Income statement, Balance sheet, Applying for loan, Cash flow Statement, Uses of financial accounting, Reporting to outsiders, Record keeping, Taxation and Control of receivables.</p> <p>Analysis of Business operations, Uses of Management Accounting, The business plan and budget process, Planning/Budgeting, Completing a master budget, Sales budget, Purchase budget, Cost of goods sold, Labor budget, Selling, general, and administrative expense budget, Overhead budget, Budgeted income statement, Completing a comprehensive budget, Controlling, Preparing a Master Budget, Decision Making.</p>	5 + 2
2	<p>Cash: Lifeblood of the business: The importance of money management, Money in/ Money Out – Just how important it is? Money as a key idea, Cash and cash equivalents, Managing cash flow, Company and bank cash balances, Reconciling bank balances with company book balances, Planning cash needs, Sales budget: forecasting sales receipts, Cash receipts budget, Forecasting cash disbursements, A comprehensive budget, Preventive cash flow problems, Techniques to increase cash inflow, Techniques to decrease cash outflows, Controlling Cash shortages.</p>	5 + 2
3	<p>Small business finance: Using equity, debt, and gifts: Focus on small business: Sources of financing for small businesses, Financing with equity, Determining personal net worth, Getting equity investment for your business, Obtaining your credit report, Gift financing, Finding grants, What type of financing is right for your business? Financial management for the life of your business, Tools for financial management, Financial Management for start-up, Financial Management for growth, Financial Management for operations, Financial Management for business exit.</p>	5 + 2

4	<p>Assets: Inventory and operations management: Focus on small business: Curtis Graf and the Nightmare on Construction Street, Managing short-term assets, Accounts receivable, The pros and cons of offering credit to customers, Managing account receivables and receive the greatest benefit for your business, Using your accounts receivable as a source of financing, Using receivables to raise immediate cash, Managing inventory, Determining the appropriate level of inventory, Scheduling ordering and receipt of inventory, Just-in-time inventory systems, Other approaches to inventory control, Value of assets in your business, Determining the value of your operating assets, Determining the value of Inventory, Property, Plants and equipment, Understanding whole of life costs for capital budgeting, The capital budgeting decisions, Payback period, Rate of return on investment, Rent or buy, Financing with leases, Fractional ownership and other forms of joint venture, Management operations, Inputs into your business, Business operations comprise converting time and materials into service and product, Business outputs, Feedback, Measuring and improving productivity, Operations management challenges for product-based firms, Operations management challenges for service firms.</p>	5 + 2
5	<p>Small business protection: Risk management and insurance: Risk in small business, Risks associated with specific business operations, Property of the business, Events related to personnel, Events related to customers and others, Managing risks, Managing risk to tangible property, Managing risk to buildings and lands, Managing risk to computers and data, Managing risk to intangible property, Managing risk from violations of tax regulations, Managing risk from employee violation of Government regulations, Insuring against risks, Using insurance to manage risks, Developing comprehensive insurance program, Sharing risk, Joint ventures , Industry groups for insurance coverage, Government funding for risky ventures.</p>	5 + 2

Learning Resources:

1	Text Books	Entrepreneurial small business by Jerome Katz, Richard Green, Tata McGraw-Hill, 2 nd Edition
2	Reference Books	-
3	Supplementary Reading Material	-
4	Websites	-
5	Journals	<p>N.S. Economides (1988), "The Economics of Trademarks", <i>Trademark Reporter</i>, 78, 523-39. How Much Money Does Your New Venture Need?, James M. Stancill, HBR, 1986. Sticking it out: Entrepreneurial survival and liquidity constraints; Holtz-Eakin, How Much Cash Does Your Company Need?, Richard Passov, HBR # R0311J</p>

Semester	IV	Specialization	Family Business Management
Course Code	407FBM	Type	Subject – Elective
Course Title	Management of Intellectual Property Rights		

Course Objectives:

1	Expose the participants to the basic concepts of IPRs, their coverage and scope.
2	Provide some insights into the strategic role of IPRs in the current Indian context
3	Generate understanding of issues relating to the management of IPRs

Syllabus:

Unit Number	Contents	Number of Sessions
1	Concept of Property vis-à-vis Intellectual Property : Overview of Concept of Property and Theories of Property , Theories of Intellectual Property Rights, Intellectual Property as an Instrument of Development , Need for Protecting Intellectual Property- Policy Consideration- National Perspectives and International demands. Types of Intellectual Property- Origin and Development- An Overview. Intellectual Property Rights as Human Right. Intellectual Property Rights in the Cyber World.	5 + 2
2	Patent Law : Introduction to Patent Law, Paris Convention, Patent Cooperation Treaty, WTO- TRIPS, Harmonization of CBD and TRIPs. Indian Patent Law - The Patents Act, 1970 , Amendments to the Patents Act , Patentable Subject Matter, Patentability Criteria, Procedure for Filing Patent Applications, Patent Granting Procedure, Revocation, Patent Infringement and Remedies , Relevant Provisions of the Biological Diversity Act, 2002 , Access and Benefit Sharing Issues	5 + 2
3	Trademarks: Introduction to Trademarks , Need for Protection of Trademarks, Kinds of Trademarks , International Legal Instruments on Trademarks , Indian Trademarks Law, The Trade and Merchandise Marks Act, 1958 - Trademarks Act, 1999, Procedural Requirements of Protection of Trademarks, Content of the Rights, Exhaustion of Rights , Assignment under Licensing, Infringement, Right of Goodwill, Passing Off , Domain Names and Effects of New Technology (Internet).	5 + 2
4	Industrial Designs: Need for Protection of Industrial Designs, Subject Matter of Protection and Requirements, The Designs Act, 2000, Procedure for obtaining Design Protection, Revocation, Infringement and Remedies.	5 + 2
5	Role of International Institutions: World Intellectual Property Organization (WIPO) , Function of WIPO , Membership of WIPO , Agreement between the WIPO and the WTO , Dispute Settlement- New Treaties. Commercialisation of Intellectual Property Rights by Licensing, Determining Financial Value of Intellectual Property Rights, Negotiating Payments Terms in Intellectual Property Transaction.	5 + 2

Learning Resources:		
1	Text Books	Al-Ali, N. (2003) Comprehensive Intellectual Capital Management: Step-by-Step. John Wiley & Sons, Inc., Hoboken, New Jersey. Andriessen, D. (2003). Making Sense of Intellectual Capital. Designing a Method for the Valuation of Intangibles. Butterworth Heinemann. Stewart, T.A. (1997). Intellectual Capital: The New Wealth of Organizations, Nicholas Brealey, London.
2	Reference Books	Sveiby, K. E. (1997). The New Organizational Wealth: Managing & Measuring Knowledge-Based Assets. Berrett-Koehler Publishers, San Francisco. Edvinsson, L. and Malone, M.S. (1997). Intellectual Capital: Realizing your company's true value by finding its hidden brainpower, Harper, New York. Low, J. and Kalafut, P.C. (2002). Invisible advantage: How Intangibles are Driving Business Performance, Perseus Publishing, Cambridge
3	Supplementary Reading Material	Sullivan, P. H. (2000). Value-Driven Intellectual Capital: How to Convert Intangible Corporate Assets into Market Value. John Wiley & Sons, Inc., Hoboken, New Jersey Tissen, R. and Andriessen, D. and Deprez, F.L. (2000). The Knowledge Dividend: Creating High-Performance Companies through Value-Based Knowledge Management, Financial Times Prentice Hall, London.
4	Websites	-
5	Journals	Andriessen, D. and Boom, M. van den (2006). Asia and Europe, knowledge economies in encounter. INA Magazine, Vol.XVII, 15-18. S. Khoury (1998), "Valuing Intellectual Properties", in P.H. Sullivan (1998), Profiting from Intellectual Capital: Extracting value from Innovation, John Wiley & Sons, 335-356. Stam, C. D. (2007). Knowledge productivity. Designing and testing a method to diagnose knowledge productivity and plan for enhancement.

Semester	IV	Specialization	Family Business Management
Course Code	408FBM	Type	Subject – Elective
Course Title	Managing, Growing and Exiting The New Venture		

Course Objectives:

1	To empower student with nuances of stages of venture and entrepreneurial conduct
2	To prepare student with the understanding of resources and external sources
3	To prepare student of separation and exit strategies

Syllabus:

Unit Number	Contents	Number of Sessions
1	Entrepreneurial Strategy: Generating And Exploiting New Entries: New Entry, Generation of a New Entry Opportunity - Resources as a Source of Competitive Advantage, Creating a Resource Bundle That is Valuable, Rare, and Inimitable. Assessing the Attractiveness of a New Entry Opportunity - Information of New Entry, Comfort with Making a Decision under Uncertainty, Decision to Exploit or Not to Exploit the New Entry. Entry Strategy for New Entry Exploitation - Environmental Instability and First Mover (Dis) Advantages, Customer Uncertainty and First Mover (Dis) Advantages, Lead Time and First Mover (Dis) Advantages. Risk Reduction Strategies for New Entry Exploitation - Market Scope Strategy, Imitation Strategies, Managing Newness.	5 + 2
2	Strategies For Growth And Managing The Implications of Growth: Growth Strategies: Where to Look for Growth Opportunities - Penetration Strategies, Market Development Strategies, Product Development Strategies, Diversification Strategies, Example of Growth Strategies. Economic Implications of Growth. Implications of Growth for the Firm - Pressures on Existing Financial Resources , Pressures on Human Resources, Pressures on Management of Employees , Pressures on Entrepreneur's Time. Overcoming Pressures on Existing Financial Resources. Financial Control - Managing Cash Flow, Managing Inventory, Managing Fixed Assets , Managing Costs and Profits, Taxes, Record Keeping. Overcoming Pressures on Existing Human Resources, Overcoming Pressures on the Management of Employees , Overcoming Pressures on Entrepreneur's Time - Basic Principles of Time Management. Implications of Firm Growth to the Entrepreneur - A Categorization of Entrepreneurs and Their Firms' Growth.	5 + 2
3	Accessing Resources For Growth From External Sources: Using External Parties to Help Grow a Business, Franchising - Advantages of Franchising- to the Franchisee, Advantages of Franchising- to the Franchiser, Disadvantages of Franchising, Types of Franchising, Investing in Franchising. Joint Ventures - Types of Joint Ventures, Factors in Joint Ventures. Acquisition - Advantages of Acquisition, Disadvantages of Acquisition, Synergy, Structuring the Deal, Locating Acquisition Candidates. Mergers, Leveraged Buyouts, Overcoming Constraints by Negotiating for More Resources.	5 + 2
4	Going Public: Advantages and Disadvantages of Going Public – Advantages, Disadvantages. The Alternatives to Going public , Timing of Going Public and Underwriter selection – Timing, Underwriter Selection. Registration Statement and Timetable - The Prospectus, Part II, Procedure. Legal issues. After Going public - Aftermarket Support, Relationship with the Financial Community, Reporting Requirements, Myths concerning Going Public.	5 + 2

5	Ending The Venture: Bankruptcy- An overview, Reorganization - Surviving Bankruptcy, Prepackaged Bankruptcy, Extended Time Payment Plans, Liquidation, Strategy during Reorganization, Keeping the Venture Going, Warning Signs of Bankruptcy, Starting Over, The Reality of Failure, Business Turnarounds, Exit Strategy. Succession of Business - Transfer to Family Members, Transfer to Non-Family Members. Harvesting Strategy - Direct Sale, Employee Stock Option Plan, Management Buyout.	5 + 2
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Learning Resources:

1	Text Books	Entrepreneurship By Robert D Hisrich , Michel P Peters, Dean A Shepherd , TMGH, 6 th ed.
2	Reference Books	James Collins, William C. Lazier, Beyond Entrepreneurship: Turning Your Business into an Enduring Great Company.
3	Supplementary Reading Material	--
4	Websites	--
5	Journals	The Role of the Founder in Creating Organizational Culture, Edgar H. Schein, Organizational Dynamics, Summer 1983.

Semester	IV	Specialization	Family Business Management
Course Code	409FBM	Type	Subject – Elective
Course Title	Project Management		

Course Objectives:

1	To make the students understand the complex issues in Project Management
2	To increase the understanding of project management tools and techniques
3	To teach the students the concepts and skills that are used by managers to plan projects, secure resources, budget, lead project teams to successful completion of projects.

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Introduction to Project Management: Definition, functions, evolution of Project Management, classification of projects, Project management in different environments.</p> <p>The Project Management Systems, Methodologies & Systems Development Cycle: Systems approach, systems analysis, systems development, project feasibility, Project life cycle, project appraisal, project contracting, the phases of system development life cycle.</p>	5 + 1
2	<p>Project Feasibility Study: Developing a project plan, market and technical analysis, financial analysis evaluation of project proposals, risk analysis, sensitivity analysis, and social cost benefit analysis.</p> <p>Project Planning: Planning fundamentals, project master plan, work breakdown structure & other tools of project planning, work packages project organization structures & responsibilities, responsibility matrix.</p>	6 + 1
3	<p>PERT, CPM, Resource allocation: Tools & techniques for scheduling development, crashing of networks, time-cost relationship, and resource leveling multiple project scheduling.</p> <p>Cost Estimating Budgeting : Cost estimating process elements of budgeting, project cost accounting & management information systems, cost schedules & forecasts.</p>	5 + 1
4	<p>Managing Risks in Projects: Risk concept & identification, risk assessment, risk priority, risk response planning, risk management methods.</p> <p>Project Control: Information monitoring, internal & external project control, cost accounting systems for project control, control process, performance analysis, variance limits, and issues in project control.</p>	5 + 1
5	<p>Project Management Information System: Computer based tools, features of PMIS, using project management software, (MS Projects)</p> <p>Project Evaluation, Reporting & Termination: Project reviews & reporting, closing the contract.</p>	4 + 1

Learning Resources:		
1	Text Books	Effective Project Management by Clements and Gido, Thomson India Edition, 2007. Project Management : The Managerial Process by Gray and Larson, MGH, Special Indian Edition, 3 rd Edition Project Management for Business and Technology: Principles and Practice by John Nicholas, PHI – Eastern Economy Edition, 2 nd Edition Project Management –by Mantel, Meredith, Shafer, Sutton and Gopalan, 1st Indian Edition
2	Reference Books	Project Management by Dennis Lock, Coles Publishing Co., Ltd. Project Management – a systems approach and planning, scheduling and controlling by Harold Kerzner, CBS Publishers Project Management for 21st Century by Bennet P Lientz and Cathryn P Rea , Academic Press, Latest Edition A management guide to PERT/CPM by Jerome D Weist and Sertinand K Levy Prentice Hall India Appraisal &Control of Project costs by Roy.Pilchar, McGraw Hill. Project Management by Gary R Heerkens & Roger A Formisano, McGraw Hill.
3	Supplementary Reading Material	Project Management: A Managerial Approach by Meredith, Mantel Wiley India, 6 th Edition. The Practice of Project Management by Freigenti and Comninos, Kogan Page
4	Websites	www.pmi.org.in/
5	Journals	Risk Analysis of Infrastructure Projects: A Case Study on Build-Operate-Transfer Projects in India by Maniar, Hiren., IUP Journal of Financial Risk Management, Dec2010, Vol. 7 Issue 4 Enercon India: Project Planning by Mukherjee, Saral; Raghuram, G., Vikalpa: The Journal for Decision Makers, Jan-Mar2007, Vol. 32 Issue 1 Critical Factors Affecting Schedule Performance: Evidence from Indian Construction Projects by Iyer, K. C.; Jha, K. N., Journal of Construction Engineering & Management, Aug2006, Vol. 132, Issue 8 What attributes should a project coordinator possess? by Jha, Kumar Neeraj; Iyer, Chandrashekhar K., Construction Management & Economics, Sep2006, Vol. 24 Issue 9 A Study of Critical Project Success Parameters in Different Organizational Conditions by Piyush, Mishra; Dangayach, G. S.; Mittal, M. L., Advances in Management, Aug2011, Vol. 4 Issue 8

Semester	IV	Specialization	Family Business Management
Course Code	410FBM	Type	Subject – Elective
Course Title	Environment and Laws		

Course Objectives:

1	To sensitise students towards environmental issues
2	To expose students to Applicable Acts vis-à-vis Environmental issues

Syllabus:

Unit Number	Contents	Number of Sessions
1	An Overview of Pollution Control Laws – Acts and Rules applicable to control of air, water and noise-pollutions (with reference to Water Act, 1974, Air Act, 1981 and E.P. Act, 1986)	5 + 1
2	Waste Management Law: (i) Solid waste, (ii) Hazardous waste, (iii) Bio-medical waste, (iv) Manufacture, Use, Import, Export and Storage of Hazardous Microorganisms Genetically Engineered Organism or Cells Rules, 1989.	5 + 1
3	Polluter's Liability: Tortious Liability: Strict and absolute liability, vicarious liability, Liability for Industrial Accidents , The Public Liability Insurance Act, 1991, The National Environment: Tribunal Act, 1995, Liability under criminal Law, Relevant provisions of Indian Penal Code, Relevant provisions of Pollution Control Legislations.	5 + 1
4	Bio-diversity law: An overview with special emphasis on traditional knowledge and intellectual property rights. Coastal Zone-Regulations and select judicial decisions , River Water and Ground Water Pollution- Legislative attempts and select judicial decisions.	5 + 1
5	Administrative Machinery: Dispute Settlement Mechanism and Remedies - Powers, Functions and Procedure of Administrative Agencies , Central Government, State Government, Central Pollution Control Board, State Pollution , Control Boards and local authorities. Forums for Resolution of Environmental Disputes - Primary judiciary (District Court), High Courts and Supreme Court, The role of Collector under Public Liability Insurance Act, 1991, Environment Tribunal under N.E.T. Act, 1995, National Environment Appellate Authority under the N.E.A. Authority Act, 1997.	5 + 1

Learning Resources:	
Text Books	Relevant Bare Acts (e.g. The Environment (Protection) Act, 1986) Industry Environment and Law / Shastri S.C. ; Balre P.P.; Khan T.I. 1996
Reference Books	International Law, Ku Charlotte, 2004
Supplementary Reading Material	http://www.loc.gov/rr/scitech/subjectguides/environmentalsg.html http://www.environment.nsw.gov.au/publications/evri.htm
Websites	http://www.moef.nic.in/modules/rules-and-regulations/environment-protction/ http://www.ceeraindia.org/documents/lib_tabofcon_160300.htm http://edugreen.teri.res.in/explore/laws.htm http://www.conservation.org/act/get_involved/protect_forests/Pages/deforestation.aspx?gclid=Clyj1M_p57UCFY966wodYHMApg http://www.carbonfund.org/?gclid=CJz8o9Dp57UCFcV56wodjBAA0Q http://www.ielrc.org/home.php
Journals	www.ceeraindia.org/documents/ijelvol2(1).pdf www.supremecourtofindia.nic.in http://www.lead-journal.org/ http://www.columbiaenvironmentallaw.org/

Semester	IV	Specialization	Family Business Management
Course Code	411 FBM	Type	Subject – Elective
Course Title	Information, Disaster and Health Management		

Course Objectives:	
1	To prepare student for Information Security and Disaster Management
2	To familiarize the learners with the meaning, factors, significance, causes and effects of disasters.
3	To sensitize students of importance of self-health & sustenance and practicing positive living.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Information Management Describe and apply a range of information systems planning techniques. Identify appropriate risk management techniques for managing information and information security. Describe and apply a range of evaluation methods to information systems evaluation and management.	5 + 1
2	Fire Safety and Fire Fighting Describe and understand chemistry of Fire, Fire prevention methods. Types of Fire and Firefighting equipment. Plan, Develop and Implement Safety Procedures.	5 + 1
3	Disaster Management Humanitarian Principles and Values in context of Disaster Management. Introduction to Hazards, Vulnerabilities and Disasters. Disaster Risk Reduction and Development Planning. Disaster Response and Recovery	5 + 1
4	Health Management General Awareness about Healthy living and Health Practices. Yoga and Pranayama Sessions Out Door Fitness Activities (Running Trekking, Outdoor Games etc.)	5 + 1
5	Work Life Balance Making work your Hobby and vice versa. Healthy practices for self, business and co-workers (Case Studies of Successful Family Business Houses)	5 + 1

Learning Resources:		
1	Text Books	Entrepreneur's Book of Checklists / Ashton Robert . - New Delhi : Pearson Education in South Asia High Performance Entrepreneur : Golden rules for success in today's world / Bagchi, Subrato. . - New Delhi : Penguin Books India Pvt. Ltd.
2	Reference Books	1. Applied Information Management System user's manual, Elmer W. Heller, System Development Corporation, the University of Michigan 2. Information Management: The Evaluation of Information Systems Investment, Leslie Willcoks 3. Handbook of Information Management edited by Alison Scammell

3	Supplementary Reading Material	<ol style="list-style-type: none"> 1. Off Balance: Getting Beyond the Work-Life Balance Myth to Personal and Professional Satisfaction Hudson Street Press; 1 edition (September 15, 2011), ISBN-10: 159463081X 2. The Myth of Work-Life Balance: The Challenge of Our Time for Men, Women and Societies, Wiley; 1 edition (April 24, 2006), ISBN-10: 0470094605 3. Strategic Project Management Made Simple: Practical Tools for Leaders and Teams Wiley; 1 edition (February 9, 2009), ISBN-10: 0470411589 4. Fire Safety: An Employer's Guide (HSE books), Stationery Office Books (July 1999), ISBN-10: 0113412290 5. A Comprehensive Guide to Fire Safety Colin Todd, BSI British Standards Institution; 3rd edition (17 Jan 2008), ISBN-10: 0580509435
4	Websites	<ol style="list-style-type: none"> 1. http://www.information-management.com/ 2. http://www.aiim.org/what-is-information-management 3. http://www.ilpi.com/safety/extinguishers.html 4. http://en.wikipedia.org/wiki/Emergency_management 5. http://www.ndmindia.nic.in/ 6. http://ndma.gov.in/ndma/index.htm 7. http://en.wikipedia.org/wiki/Health_administration 8. http://en.wikipedia.org/wiki/Work%E2%80%93life_balance 9. http://www.webmd.com/balance/guide/5-strategies-for-life-balance 10. http://www.oecdbetterlifeindex.org/topics/work-life-balance/
5	Journals	<ol style="list-style-type: none"> 1. http://jhm.sagepub.com/ 2. http://www.mayoclinic.com/health/work-life-balance/WL00056

Semester	IV	Specialization	Family Business Management
Course Code	412 FBM	Type	Subject – Elective
Course Title	Business Incubation		

Course Objectives:	
1	To develop a basic understanding of their own business model
2	Learn basics of startup formation
3	Receive mentoring from successful, articulate, and committed entrepreneurs.

Syllabus::

Students shall work in groups of not more than 3, identify a business idea and come up with the following in the context of their identified business idea:

1. Competitive Analysis
2. Marketing Plan
3. Operational Plan
4. Financials
5. Market research
6. Advertising
7. Advisory board development
8. Legal issues (company structure, legal agreements, intellectual property)
9. Insurance issues
10. Other revenue
11. Marketing
12. Technology
13. Operations/costs
14. Funding
15. Institutional / Government Support to the venture.
16. Relationships
17. Team-building
18. Ethical issues
19. One-Page Business Summary

The students shall present their work to the faculty and fellow students. To the extent possible an entrepreneur should be involved in the evaluation process.

The following questions shall form the basis of evaluation of the work:

1. Is the idea well-conceived?
2. Is the plan well researched?
3. Has the team identified and addressed key questions and challenges and, as an entrepreneur, adjusted nimbly?
4. Did the team present the plan well?

Weightage to the work shall be as follows:

1. Initial competitive analysis
2. Preliminary marketing plan
3. Operational plan
4. Financials
5. One-page business summary
6. Written Work

Learning Resources:		
1	Text Books	Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers, by Alexander Osterwalder and Yves Pigneur Founders at Work: Stories of Startups' Early Days P. Denning and R. Dunham, The Innovator's Way, MIT Press: Cambridge, Massachusetts, 2010.
2	Reference Books	Steven Gary Blank, The Four Steps to the Epiphany, paperback and PDF, 2006. E. Ries, The Lean Startup, Crown: New York, 2011.R. Dorf, T. Byers, Technology Ventures: From Ideas to Enterprise, McGraw Hill: New York, 2008 T. Hopkins, Selling for Dummies, Wiley: Indianapolis, 20110
3	Supplementary Reading Material	Peter Drucker, Innovation and Entrepreneurship, Harper & Row: New York, 1985.
4	Websites	-
5	Journals	-

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MBA Syllabus: Semester IV
Technology Management

Semester	IV	Specialization	Technology Management
Course Code	403TM	Type	Subject – Core
Course Title	Technology Competition and Strategy		

Course Objectives:	
1	To highlight the role of technology and innovation as value drivers.
2	To emphasize the open systems view and underscore the role of environment in Technology strategy.
3	To highlight linkages between technology and business strategy

Syllabus:

Unit Number	Contents	Number of Sessions
1	Technology & Competition: Competitive Domains, Competitive Consequences of Technological Change – Creation of New Products, Changes in the Value Chain, Changes in the Value Constellation, Competitive Rivalry. Technological Characteristics of Competitive Domains – Technological Opportunity, Appropriability, Resource Requirements, Collateral Assets, Institutional Milieu, Speed. Dynamics of Change in the Competitive Domain – Technology Emergence Phase, Incremental Change Phase. Framework for Analysis of Technology Emergence, Influence of Environmental trends on competition. Technology as critical to Business Outcomes – Technology Strategy and Technology Leadership.	7 + 2
2	Technology Intelligence: Signals of New Technology, What is Technology Intelligence, Importance of Technology Intelligence, Levels of Technology Intelligence, External versus Internal Technology Intelligence. Mapping the Technology Environment – Steps in Mapping, Mapping the Macro-level and Industry Level Environment. Mechanisms for Data Collection – Challenges, Organizational Arrangements and Key Principles for Data Collection. Contemporary Challenges in Mapping the Technology Environment.	7 + 2
3	Business Strategy and Technology Strategy: Business Strategy , Strategic Analysis and Decision Making using Product Evaluation Matrix, Market-Growth-Market-Share Analysis Matrix, X-Y Coordinating Method, M-by-N Matrix, SWOT Matrix, Formulation of Technology Strategy, Core Competencies, Exploitation of Core Competencies, Integration, Linking Technology & Business Strategies, Creating the Product-Technology-Business Connection. Technology's Interface with – Market, Customers and Suppliers. Customer-Supplier and Product-User relationships.	7 + 2
4	Technology Strategy Choice: Technology – Business Connection, Domains of Technology Choice, Linkages between Technology Choice and Competitive Advantage, Technology Strategy Definition, Role of Chief Technology Officer, Key principles underlying Technology Strategy – Objectives, Drivers, Decision criteria. Technology Strategy Types – Appropriateness of the Technology Strategy Types, Diversified Firms, A Framework for formulating Technology Strategy – Strategic Diagnosis, Formulation of Technology Strategy, Crafting and Implementation Approach, Execution. Technology Strategy – Superior Performance Characteristics. Accountability to Shareholders, Government and Other Stakeholders/ Performance Measurement.	7 + 2

5	Technology Strategy – Collaborative Mode: Collaborative Arrangements – Definitions, Trends, R&D Alliances, Marketing Alliances, Outsourcing Alliances, Collaboration between small and large firms, Strategic and Operational Reasons for Collaborative Arrangements. Collaborative Arrangements in the domain of Technology Strategy – Appropriation of technology, Deployment of technology in New Products, Deployment of technology in the Value Chain, Marketing of technology. Risks of Collaborative Activity – Intellectual Property Right Risk, Competitive Risk, Organizational Risk. Cases on R & D Collaborations, Global Technology Alliances. The form of Collaborative Arrangement.	7 + 2
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Learning Resources:		
1	Text Books	Managing Technology and Innovation for Competitive Advantage, V K Narayanan, Pearson Education, 2009 Edition. Technology Management – Text and International Cases, Norma Harrison and Danny Samson, MGH.
2	Reference Books	Strategic Management of Technology & Innovation, Robert A Burgelman, Modesto A Maidique, Steven C Wheelwright, MGH International Edition. Management of Technology – The Key to Competitiveness and Wealth Creation, Tarek Khalil and Ravi Shankar, TMGH, New Delhi, 2 nd Edition. Technology & Business Strategy – An Introduction, Edited by Prashanta Kumar Banerjee, ICFAI books.
3	Supplementary Reading Material	Managing Strategic Innovation and Change – A Collection of Readings, Michael L Tushman and Philip Anderson, Oxford University Press. 2 nd Edition. Management of Technology and Innovation – Competing through Technological Excellence, P N Rastogi, Response Books, 2 nd Edition. Utterback, James. "Invasion of a Stable Business by Radical Innovation." Chapter 7 in Mastering the Dynamics of Innovation. Cambridge, MA: Harvard Business School Press, 1994. ISBN: 9780875843421.
4	Websites	http://www.ifm.eng.cam.ac.uk/research/ctm/ http://hbswk.hbs.edu/ http://knowledge.wharton.upenn.edu/ http://www.technologymanagementchicago.org/
5	Journals	McGahan, Anita. "How Industries Change." Harvard Business Review, October 1, 2004. Lieberman, M. & C. Montgomery. 1988. First Mover Advantages: A Survey, in <i>Strategic Management Journal</i> , 9: 41-58. Henderson, Rebecca, and Kim Clark. "Architectural Innovation: The Reconfiguration of Existing Product Technologies and the Failure of Established Firms." <i>Administrative Science Quarterly</i> 35 (1990): 9-30. Bowman, E. H. & D. Hurry. 1993. Strategy through the Option Lens: An Integrated View of Resource Investments and Incremental-Choice Process, in <i>Academy of Management Review</i> , 18(4): 760-782. Linton, J. D., S T. Walsch & J. Morabito. 2002. Analysis, Ranking and Selection of R&D Projects in a <i>Portfolio</i> , in <i>R&D Management</i> , 32(2): 139-148. Arthur, W.B.: Increasing Returns and the New World of Business, Harvard Business Review July 1996

Semester	IV	Elective	Technology Management
Course Code	404TM	Type	Subject –Core
Course Title	Managing Innovation – II		

Course Objectives:

1	To provide exposure to an integrative framework for innovation.
2	To highlight global and emerging market context of globalization
3	To describe government's role in innovation
4	To describe innovations in service sector context.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Globalization for Innovation: Technological Uncertainty, Market Uncertainty, Endogeneity, Generic Strategies for World Wide Innovation, Strategic Choice – Balancing Cost & Innovation, Role of Complimentary technologies, Protecting Entrepreneurial Rents – Team Up , Block, Run. Methods of Globalization – Acquisitions and Mergers, Strategic Alliances, Licensing, Internal Development.	7 + 2
2	Innovation for Emerging Economies: Value Stock, Techno-economic Factors – Economic Differences, Product Specificity. Entry Strategies – Reach for later stage of the Product Life Cycle, Reach Deeper into the Value Stock, Options Approach.. Implementation – Technology Transfer, Commercialization, Establishing Co-opetitors.	7 + 2
3	Role of National Governments in Innovation: Why a Government Role? – Public Nature of Knowledge, Uncertainty, Public Complimentary Assets, Network Externalities, Politics. Government Actions – Financing R & D, Lead User, Provider of Public Complimentary Assets. Regulator, Macro-Economic Fundamentals, Baby-Sitter and Godfather, Educator, Information Centre and Provider of Political stability.	7 + 2
4	Innovation in Services: Service Organizations do Innovate, The Concept of Innovation in Services, Type of Innovation in services, The CI-3 Framework – Customer Intelligence, Customer Intimacy, Customer Innovation. Brand Asset Monitoring, Customer Satisfaction & Loyalty Measurement, Touch Points Data Management, Customer Blending, Customer Mind Mapping, Customer Ecosystem Mapping. Innovation Process, Magnet team. Product Forums. Benefits of the CI – 3 Framework.	7 + 2
5	Cases on Innovation: Business / Process innovations, Social Innovations, Organizational innovations. Overview of National Innovation Systems – Brazil Denmark, Singapore, USA, Japan.	7 + 2

Learning Resources:		
1	Text Books	Innovation Management , Allan Afuah, Oxford Indian Edition. Business Innovation in the 21 st Century, Praveen Gupta, S Chand. A Case Study Special on Innovation – Making Aspirations Count, Business World Publication. Innovation Management, ShlomoMaital and D V R Seshadri, Response Books, Sage Publications, New Delhi.
2	Reference Books	Adair on Creativity and Innovation, Edited by Neil Thomas, Viva Books.
3	Supplementary Reading Material	Innovating at the Edge – How organizations Evolve and Embed Innovation Capability, Tim Jones, Butterworth-Hienemann, South Asian Edition. Managing Creativity & innovation, Harvard Business Essentials, Harvard Business School Press. The Innovator's ToolKit , Harvard Business Press. Fastrack to Success Innovation , Andy Bruce and David Birchall, Prentice Hall - Financial Times. Getting to Innovation, Arthur B VanGundy, PHI – Eastern Economy Edition.
4	Websites	http://www.ifm.eng.cam.ac.uk/research/ctm/ http://hbswk.hbs.edu/ http://knowledge.wharton.upenn.edu/ http://www.technologymanagementchicago.org/
5	Journals	Henderson, R. & K. Clark. 1990. Architectural Innovation: The Reconfiguration of Existing Product Technologies and the Failure of Established Firms, in <i>Administrative Science Quarterly</i> , 35: 9-30. Cattani, G. 2006. Technological Pre-Adaptation, Speciation and Emergence of New Technologies: How Corning Invented and Developed Fiber Optics, in Industrial and Corporate Change , 15(2): 285-318. International Journal of Innovation and Technology Management

Semester	IV	Specialization	Technology Management
Course Code	405TM	Type	Subject – Elective
Course Title	Innovation, Product Development and Commercialization		

Course Objectives:

1	To offer a holistic framework for new product development and commercialization especially in the context of high technology products.
2	To highlight critical role of leadership in management of new product development & commercialization.
3	To illustrate how to integrate business, market, technology and resource strategies for optimal product development decisions and global commercialization success.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Product Platform and Knowledge Integration: Product Development Goals, Knowledge - Generation, Retention, Reuse and Integration. Dimensions of Knowledge integration, Knowledge integration across the value chain and virtual teams, Time Value of Knowledge and Short time to Market, Types of Products and Product Development Projects, Product and Process Platforms – Definitions, Defining a Product platform. Modularity in System Design, Strategic Outsourcing and Product Architecture, Product Life Cycle, Continuous Improvement of a Product, Baseline and Derivative products.	5 + 1
2	Product Development Process: Product Development framework, product Development process at leading corporations, New Product Development and Commercialization Process, Scaling the process and dynamic nature of Product Development, Knowledge generation and Integration in the PDCP, Flexibility in Product Development, Market Requirement Specifications, Phases of the PDCP, Product Launch, Cross-functional responsibilities and deliverables in the Product Development. Process Development Methodology, Software Product Development, Product Release and Post release Management, Product Change Management.	5 + 1
3	Excellence in Design and Product Reliability: Product Design , Design for Excellence – Design for Manufacturability, Serviceability, Maintainability, Safety, Environment Sustainability. Design for Reliability, Predictability and Robustness. Reliability profile over the Life Cycle, Reliability Assurance beyond the design phase. Reliability design and reliability modeling, Fault Tree Analysis, Failure Modes, Effects and Criticality Analysis, Design of Experiments, Passive Data Collection, Accelerated Testing and Screening, Weibull Analysis, Duane Growth Model, Terminology in Product Design and Development, Product Documentation, Prototyping, Product Characterization Testing, Customer Participation in Product Development, Quality.	5 + 1
4	Commercialization of High Tech Products: Challenges in the development and commercialization of high tech products, Strategies for flawless execution, process orientation, Kaizen in PDCP, Managing critical interfaces, Systems analysis, Systems Engineering and Life Cycle Thinking, Product Development – A Systems Analysis Perspective, A Global Perspective. Managing Constraints. Common innovation problems in large companies, Engineering Excellence and Team Productivity, Lean Product Development, Virtual teams through strategic alliances and sourcing to external and internal suppliers, core competency, core activities, leveraging resources.	5 + 1

5	<p>Managing New Product Development Teams: Overview, Constructing New Product Development teams, Team Size and Composition, Structure of the New Product Development team, Functional teams, Lightweight teams, Heavyweight teams, Autonomous teams. Team Leadership, Team Administration. Managing Virtual teams.</p> <p>Managing Product and Technology Portfolios for Shareholder Value: Factors affecting long term growth of shareholder value – RoA, RoE, RoI models, Product and Technology Portfolio Planning, A framework for Product Portfolio Planning, Steps in Product Portfolio Planning, Resource Distribution, Assessing Market and Business Opportunities.</p>	5 + 1
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Learning Resources:		
1	Text Books	Innovation, Product Development and Commercialization – Case Studies and Key Practices for Market Leadership, Dariush Rafinejad, Cengage Learning, India Edition. Strategic Management of Technological Innovation, Melissa A Schilling, TMGH, Special Indian Edition, 2nd Edition.
2	Reference Books	Strategic Management of Technology & Innovation, Robert A Burgelman, Modesto A Maidique, Steven C Wheelwright, MGH International Edition. Managing Technology and Innovation for Competitive Advantage, V K Narayanan, Pearson Education, 2009 Edition.
3	Supplementary Reading Material	Management of Technology and Innovation – Competing through Technological Excellence, P N Rastogi, Response Books, 2 nd Edition.
4	Websites	http://www.ifm.eng.cam.ac.uk/research/ctm/ http://hbswk.hbs.edu/ http://knowledge.wharton.upenn.edu/ http://www.technologymanagementchicago.org/
5	Journals	Cooper R. G. "Third Generation New Product Processes", <i>Journal of Product Innovation Management</i> , 11, 1994, 3-14. Griffin A., and Hauser J. R. 1993. "The Voice of the Customer", <i>Marketing Science</i> , 12 (1), pp. 1-27 Lynn G. S., J. G. Morone, and A. S. Paulson, "Marketing and Discontinuous Innovation: The Probe-and-Learn Process" <i>California Management Review</i> 38, Spring 1996, 8-37 Von Hippel E. "Creating Breakthroughs at 3M", <i>Harvard Business Review</i> , September-October 1999. "The Ultimate Creativity Machine: How BMW Turns Art into Profit" <i>Harvard Business Review</i> , Jan/Feb 2001

Semester	IV	Elective	Technology Management
Course Code	406TM	Type	Subject – Elective
Course Title	Strategies for Information Goods and Network Economies – II		

Course Objectives:

1	To describe alternative strategies for pricing in the context of information goods.
2	To describe role of platform based strategies in the context of network economy.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Strategies for Internet and Telecommunication Services: Price discrimination via multi-part tariffs, Pricing of future consumption.	5 + 1
2	Enterprise Technology Strategies: Subscription vs. per-use pricing, Technology Licensing, site licensing vs. employee pricing, software sharing , Timing of release and upgrades, product launch and versioning, damaged goods, managing buyer disbelief about product quality. Managing switching costs and lock-in.	5 + 1
3	Strategies for platform and network goods: Compatibility, product complements and network effects: Compatibility within own network, one-way and two-way compatibility, compatibility under competition and direct network effects. Product complementarities and compatibility.	5 + 1
4	Platform Competition, Control, Alliances: Network compatibility and alignment, Why Dominant Designs are Selected – Learning Effects, Network Externalities, Government Regulation, Winner-take-all markets. Are Winner-take-all markets good for consumers?	5 + 1
5	Standards: Standards Wars - Battle for standards, openness, control, Managing and analyzing alliances.	5 + 1

Learning Resources:

1	Text Books	Carl Shapiro and Hal R. Varian. Information rules: a strategic guide to the network economy. Boston, MA, USA: Harvard Business School Press, 1998 Economics of Information Technology: An Introduction , Hal R. Varian, Joseph Farrell, and Carl Shapiro. Cambridge University Press, 2005.
2	Reference Books	Competition, Regulation and Strategy: The Information Technology Industry, Morris Game Theory and Business Strategy , Oberholzer-Gee and Yao Hirshleifer, J. and J. Riley (1992). The Analytics of Uncertainty and Information (Cambridge Univ. Press).
3	Supplementary Reading Material	The Economics of Network Industries. Oz Shy , Cambridge University Press, 2002. "Freeing the Source: The Story of Mozilla" by Jim Hamerly and Tom Paquin with Susan Walton, in: Open Sources: Voices from the Open Source Revolution, O'Reilly, 1999
4	Websites	http://www.ifm.eng.cam.ac.uk/research/ctm/ http://hbswk.hbs.edu/ http://knowledge.wharton.upenn.edu/ http://www.technologymanagementchicago.org/
5	Journals	Katz, M. L. and Shapiro, C. (1994). Systems Competition and Network Effects. Journal of Economic Perspectives. 8(2): 93-115. Liebowitz, S. J. and Margolis, S. E. (1994). Network Externality: An Uncommon Tragedy. Journal of Economic Perspectives. 8(2): 133-150.

Semester	IV	Elective	Technology Management
Course Code	407TM	Type	Subject – Elective
Course Title	Technology Use and Assessment		

Course Objectives:

1	To describe linkages among society, environment, and technology.
2	To describe a framework for technology assessment.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Technology Assessment: Definitions and Purpose of Technology Assessment: Policy, Decision-making (Organizational and personal). Assessment Criteria - Stakeholder Interests, Authority, Sustainability: Social, Economic, & Environmental, Efficiency, Ethical Considerations, Costs, Benefits, and Tradeoffs. Scope of Technology Assessment - Personal and Organizational, Formal and Informal, Small- and Global-Scale.	5 + 1
2	Technology and its Influence: Technology and its influence on Society, Government & Politics, Energy, Health, Environment, Education.	5 + 1
3	Selected Technology Assessment Techniques: Risk and Impact Assessment, Environmental Impact Assessment, Health Technology Assessment, Critical Incident, Suturing, Brainstorming, Interpretive structural modeling, Trend extrapolation, Opinion measurement, Scenarios, Checklists, Relevance trees, Cross-effect matrices, Simulation models, Sensitivity analysis, Probabilistic techniques, Benefit-cost analysis, Export base models, Decision analysis - Decision Trees, Policy capture, Life cycle analysis, Force field analysis.	5 + 1
4	Technology Use: Definitions and Purpose of the study of Use. Usability: System & Product Acceptability Criteria, Usability Defined, Usability Attributes (e.g., learnability, efficiency, and satisfaction), Usability Engineering Lifecycle - Goal Setting & Design Criteria, User-centered design, Ergonomics and anthropometrics, Trade-Offs. Usability Research Methods - Observation, Usability Tests, User Surveys, Task Analysis.	5 + 1
5	Conducting Research on Technology Use: Planning - Human subjects protection, Standards for verifiability, validity, and reliability. Gathering data - Analyzing and Interpreting data, Reporting.	5 + 1

Learning Resources:

1	Text Books	Porter, A. L., Rossinni, F., Carpenter, S. R, Roper, A. T., Larson, R. W., and Tiller, J. S. (1980). A guidebook for technology assessment and impact analysis. New York: North Holland. R.C. Megantz (1996), <i>How to License Technology</i> , John Wiley & Sons. R.L. Parr & P.H. Sullivan (1996), <i>Technology Licensing, Corporate Strategies for Maximizing Value</i> , John Wiley & Sons. P.H. Sullivan (1998), <i>Profiting from Intellectual Capital: Extracting value from Innovation</i> , John Wiley & Sons.
2	Reference Books	Porter, A.L., Roper, A.T., Mason, T.W., Rossinni, F.A. & Banks, J. (1991). Forecasting and management of technology. John Wiley & Sons. Barnum, Carol. (2002). Usability testing and research. NY: Longman
3	Supplementary Reading Material	Rubin, Jeffrey. (1994). Handbook of usability testing: How to plan, design, and conduct effective tests. NY: Wiley Nielsen, Jakob. (1993). Usability engineering. San Diego, CA: Morgan Kaufman

4	Websites	Ely, A., Van Zwanenberg, P. & Stirling, A. (2011). New models of technology assessment for development. Working paper from the STEPS Centre. Retrieved from http://www.steps-centre.org/PDFs/Technology_Assessment.pdf Mohr, H. (1999). Technology assessment in theory and practice. Society for Philosophy of Technology, 4(4). http://scholar.lib.vt.edu/ejournals/SPT/v4n4/mohr.html
5	Journals	Deal, W. (2002). Making the connection: Technological literacy and technology assessment. The Technology Teacher, 61(7), 16-18. International Journal of Technology Management

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Semester	IV	Elective	Technology Management
Course Code	408TM	Type	Subject – Elective
Course Title	Product Strategy for High Technology Companies – II		

Course Objectives:

1	To propose vectors of differentiation as a framework for sustainable competitive advantage
2	To describe alternative product-market strategies for high technology product companies
3	To provide a fundamental understanding of global product strategies and framework for opportunities and risk assessment

Syllabus:

Unit Number	Contents	Number of Sessions
1	Achieving Sustained Differentiation through Vectors of Differentiation: Effects of Differentiation. Benefits of Vectors of Differentiation. Differentiation Strategies – Using Unique Features, Measurable Customer Benefits, Ease of Use, Improved Productivity, Protecting the Customer's Investment, Lower Cost of Product Failure, Higher-Performance products, Unique Fundamental Capabilities, Through Design, Based on Standards, Total Solutions, Total Cost of Ownership, Brand Name, Convenience. Risks of Differentiation, Sustainable Differentiation – Maintaining Technological Advantage, Using Patent Protection, Rapidly Advancing the Vector.	5 + 1
2	Product Pricing Strategy: Effects of Pricing Strategy, Offensive Pricing Strategies - Price Leadership, Penetration Pricing, Experience Curve Pricing, Price / Performance, Promotional Discounting. Defensive Pricing Strategies – Adapt prices to maintain Highest Competitive Price, Use Price to Segment the Market, Use Skim Pricing to Maximise Profit, Redirect Product line Sales by Bait-and-Switch Pricing. Internet Pricing Strategies, Risks of Offensive Pricing Strategies. Sources of Cost Advantage.	5 + 1
3	First-to-Market and Fast-Follower Strategies: Advantages of Being First to Market, Advantages of being the fastest, First-to-Market Strategies – First to Upgrade Products with New Technology, Respond Rapidly to Market Changes, Introduce Continual Product Innovation, Be a First to Create a New Market. Fast Follower Strategies – Wait Until a New Market is Clarified, Reverse Engineer Successful Competitor Brands. Risks of Timing Strategies – Entering the Market prematurely, Compressing Product Life cycles, Relying on Inferior Product Development Process.	5 + 1
4	Thinking Globally about Product Strategy: International Differences in Products – Certification Requirements, Standards, Language Differences, Differences in use, Demographic Differences, National Preferences and Protectionism, National Laws. Global Product Strategy Integration with Other Global Strategies – Global Market Strategy, Global Manufacturing Strategy, Global Product Development Process. Global product Strategies – Design and Develop Products Uniquely for Country Markets, Leverage a Country Specific Product through Reengineering, Customize a Global Product Platform to Meet the Needs of Different Regions, Develop a Universal Global Product. Risks of Global Strategies.	5 + 1
5	Opportunities and Risks of Cannibalization: Causes of Unfavourable Cannibalization, Offensive Cannibalization Strategies – Cannibalize the Market to Attach the Market Leader, Introduce New Technology First. Defensive Cannibalization Strategies – Cannibalize yourself before Competitors do it, Introduce Cannibalization to Continue as the Technology Leader, Manage the Rate of Cannibalization through Pricing, Restrict Cannibalization to Specific Market Segments. Risks of Cannibalization Strategies, Analytical Framework for Cannibalization.	5 + 1

Learning Resources:		
1	Text Books	Product Strategy for High Technology Companies, Michael McGrath, MGH, 2nd Edition. Butje, M.: Product Marketing for Technology Companies, Butterworth-Heinemann, Burlington, 2005 Cooper, R.G.: Product Leadership – Creating and Launching Superior New Products, Perseus Books, Cambridge, 2000
2	Reference Books	Marketing of High-Technology Products and Innovations by Jakki Mohr, Sanjit Sengupta, Stanley Slater, 2nd Edition Gorchels, L.: The Product Manager's Handbook: The Complete Product Management Resource, 3 rd edition, McGraw Hill, New York, 2005
3	Supplementary Reading Material	Marketing High Technology by William H. Davidow Product Marketing for Technology Companies by Mark Butje, Elsevier
4	Websites	http://www.ifm.eng.cam.ac.uk/research/ctm/ http://hbswk.hbs.edu/ http://knowledge.wharton.upenn.edu/ http://www.technologymanagementchicago.org/
5	Journals	Moore, J.F.: Predators and Prey: A New Ecology of Competition, Harvard Business Review May 1993

Semester	IV	Elective	Technology Management
Course Code	409TM	Course Type	Subject - Elective
Course Title	Systems & Technologies for Knowledge Management		

Course Objectives:

1	To familiarize the participants with systems & technologies used for knowledge capture, discovery, sharing & application.
2	To highlight role of artificial intelligence, knowledge based systems & data mining in knowledge Management.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Artificial Intelligence 1.1 Artificial Intelligence – Meaning, Knowledge Vs. Intelligence, Concept of Expertise, state space search methods comprising early AI Work, 1.2 Modern knowledge-based systems (KBS), Heuristic Search, Kinds of Knowledge in Knowledge Based Systems, Expert Systems, Advantages & Disadvantages of KBS 1.3 AI Based Reasoning - Model-based reasoning, Constraint-based reasoning, Diagramatic Reasoning, Fuzzy logic, Evolutionary algorithms	5 + 1
2	Knowledge Based Systems (KBS) 2.1 User's & Developer's Views of KBS, Components of KBS - Inference engine, The knowledge base The user interface, The fact base 2.2 Means of Representing Knowledge – Rules & Frames, Inference Chains, Attributes, Inheritance 2.3 Rule based reasoning, Frame based reasoning, Forward & Backward Chaining, Weaknesses of Rule based reasoning, Knowledge Engineering, Tools available for KBS 2.4 Case Based Reasoning (CBR), CBR Systems, Using CB Libraries, Advantages & Disadvantages	4 + 1
3	Knowledge Elicitation & Capture 3.1 Repertory Grid as Knowledge Elicitation Tool, Techniques to automate knowledge acquisition, 3.2 Knowledge Capture System –Techniques for Using & Organising Organisational Stories, 3.3 Concept Maps, Cmap Tools, Context Based Reasoning	4 + 1
4	Data Mining 4.1 Concept of Data Mining, Objectives of Data Mining, Data Mining Techniques – Predictive & Descriptive 3.3 Statistical pattern Recognition, Statistical Clustering, 3.4 Decision Trees, Induction Trees 3.5 Artificial Neural Networks, Basic feed forward neural networks with supervised learning, Unsupervised learning, Clustering techniques and the Kohonennetworks. CRISP DM Methodology	6 + 1

5	<p>Knowledge Sharing & Application Systems</p> <p>5.1 Organizational Memory</p> <p>5.2 Requirements & barriers to Knowledge Sharing Systems</p> <p>5.3 Types of Knowledge Sharing Systems, Repositories, Incident report databases, Alert systems, Best practices databases, Lessons-learned systems, Expertise locator systems</p> <p>5.4 Knowledge Application Systems, Design Considerations, Case Method Cycle, Technologies</p> <p>5.5 Types of Systems- Expert systems, decision support, advisor systems, fault diagnosis (troubleshooting) systems, help desk systems</p>	6 + 1
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Learning Resources:		
1	Text Books	Irma Becerra-Fernandez, Avelino Gonzalez, Rajiv Sabherwal (2004). Knowledge Management Challenges, Solutions, and Technologies . Prentice Hall. ISBN: 0-13-109931-0.
2	Reference Books	<p>Elias M. Awad, Hassan M. Ghaziri (2004). Knowledge Management. Prentice Hall. ISBN: 0-13-034820-1.</p> <p>Donald Hislop, Knowledge Management in Organizations, Oxford 2nd Edition.</p> <p>Amrit Tiwana (2002). The Knowledge Management Toolkit: Orchestrating IT, Strategy, and Knowledge Platforms (2nd Edition). Prentice Hall. ISBN: 013009224X.</p> <p>Stuart Russell, Peter Norvig (2003). Artificial Intelligence: A Modern Approach (2nd Edition). ISBN: 0-13-790395-2.</p> <p>Ian Watson (2002). Applying Knowledge Management: Techniques for Building Corporate Memories. Morgan Kaufmann. ISBN: 1558607609.</p> <p>Madanmohan Rao (2004). Knowledge Management Tools and Techniques: Practitioners and Experts Evaluate KM Solutions. Butterworth-Heinemann. ISBN: 0750678186.</p> <p>Stuart Barnes (Ed) (2002). Knowledge Management Systems Theory and Practice. Thomson Learning.</p> <p>Kimiz Dalkir, Knowledge Management in Theory and Practice, Elsevier, Butterworth-Heinemann.</p> <p>Shelda Debowski, Knowledge Management, Wiley India Edition.</p>
3	Supplementary Reading Material	<p>Chris Collison, Geoff Parcell (2001). Learning to Fly: Practical Lessons from one of the World's Leading Knowledge Companies. Capstone. ISBN: 1-84112-124-X.</p> <p>Helen N Rothberg and G Scott Erickson, From Knowledge to Intelligence – Creating Competitive Advantage in the Next Economy, Elsevier, Butterworth-Heinemann.</p> <p>Peter F. Drucker, David Garvin, Leonard Dorothy, Straus Susan, John Seely Brown (1998). Harvard Business Review on Knowledge Management. Harvard Business School Press. ISBN: 0875848818.</p> <p>Madanmohan Rao, Leading with Knowledge – Knowledge Management Practices in Global Infotech Companies, TMGH.</p>
4	Websites	<p>http://www.research.ibm.com/journal</p> <p>http://hbswk.hbs.edu/</p> <p>http://knowledge.wharton.upenn.edu/</p> <p>http://www.technologymanagementchicago.org/</p>

5	Journals	<p>Dueck, G. (2001) Views of knowledge are human views. IBM Systems Journal, 40(4), 885-888. http://www.research.ibm.com/journal/sj/404/du_eck.html.</p> <p>Lesser, E.L. & Storck, J. (2001) Communities of practice and organizational performance. IBM Systems Journal, 40(4), 831-841. http://www.research.ibm.com/journal/sj/404/le_sser.html.</p> <p>Avram, G (2006). "At the Crossroads of Knowledge Management and Social Software" The Electronic Journal of Knowledge Management 4 (1), 1-10. http://www.ejkm.com/volume-4/v4-1/Avram.pdf.</p> <p>Marwick, A.D. (2001) Knowledge management technology. IBM Systems Journal, 40(4), 814-830. http://www.research.ibm.com/journal/sj/404/marwick.html.</p>
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University of Pune

Semester	IV	Elective	Technology Management
Course Code	410TM	Course Type	Subject - Elective
Course Title	Strategic Management of Intellectual Property Rights		

Course Objectives:

1	To expose the participants to the concept of intellectual property & intellectual property rights
2	To describe procedures & agencies involved in issues related to IPR
3	To highlight strategic issues related to IPR & its management

Syllabus:

Unit Number	Contents	Number of Sessions
1	<p>Introduction</p> <p>1.1 Meaning of Intellectual Property & Intellectual Property Rights, Historical perspectives and need for the introduction of Intellectual Property Right regime, Ethical & Social Issues</p> <p>1.2 Types of IPRs - patents, copyrights, trademarks, trade secrets and traditional knowledge, industrial design, integrated circuits, plant protection and geographical indications, domain names</p> <p>1.3 Benefits of securing IPRs, Strategic Relevance of IPR,</p> <p>1.4 International conventions and treaties on IP, TRIPs and various provisions in TRIPs Agreement</p> <p>1.5 IP issues on the internet</p>	6+1
2	<p>Filing Patent Applications</p> <p>2.1 Indian Legislations for the protection of various types of Intellectual Properties</p> <p>2.2 Patent Filing procedure, Claim drafting, agencies involved, what can be patented & what can not be, Strategic Issues relating to the content of the application</p> <p>2.3 Traditional Knowledge & Geographical Indications</p> <p>2.4 Introduction to Global IP & Different form of IPRs, Global IP and Litigation, US Patent Statutes and Filing procedure</p> <p>2.5 Key strategic and policy issues.</p>	5+1
3	<p>IPRs and their strategic relevance</p> <p>3.1 Patents in various industries such as Pharmaceutical & Biotech, Agriculture , Engineering, Information Technology Industry etc., ownership and period of protection;</p> <p>3.2 Trademarks- Boundaries between trade-mark, trade-dress and industrial design</p> <p>3.4 Copyright: Strategic Issues Relating to Software and Artistic Works</p> <p>3.5 Securing and Commercializing IPRs</p>	4+1
4	<p>IPRs Licensing & Strategic Alliances</p> <p>4.1 IP appraisal, IP Valuation</p> <p>4.2 Technology transfer through licensing, strategic alliances and other types of contractual arrangements.</p> <p>4.3 Licensing of technologies, Material Transfer Agreements, Research Collaboration Agreement</p> <p>4.4 IPRs and Licensing Strategies – Strategic impact on licensors & licensees of technology,</p> <p>4.5 Key issues involved in the licensing process.</p>	5+1

5	Management of IPR : Inter & Intra Firm Alliances 5.1 Role of Inter-firm Networks and Strategic Alliances 5.2 Organizational Incentive Mechanisms & Intra-organizational arrangements , 5.3 Internal Assessment of Technology and Intellectual Property& strategies to protect it., search for similar or related innovations/inventions, Exploring databases 5.4 Issues Relating to Commercialization of IPRs, Evaluating the commercial viability of IPRs 5.5 Overseas IP Operations	5+1
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Learning Resources:

1	Text Books	Ganguli, P., 2001. intellectual Property Rights: Understanding Knowledge Economy. McGraw-Hill. David J. Teece, 2000. Managing Intellectual Capital: Organizational, Strategic, and Policy Dimensions, Oxford University Press
2	Reference Books	The Indian Acts – Patents Act, 1970 and amendments; Design Act, 2000; Trademarks Act, 1999; The Copyright Act, 1957 and amendments; Layout Design Act, 2000; PPV and FR Act 2001, and Rules 2003; National Biological Diversity Act, 2003. Saha, R. (Ed.). 2006, Intellectual Property Rights in NAM and Other Developing Countries: A Compendium on Law and Policies. Daya Publ. House. Watal, Jayashree, 2001. Intellectual Property Rights in the WTO and Developing Countries, Oxford University Press, Delhi Breeding Innovation and Intellectual Capital, Dr. Ajay Batra, SPD, 2nd Edition Intellectual Property-Copyrights, Trademarks and Patents, Richard Stim, Cengage Learning, India Edition Intellectual Property, A Power Tool for Economic Growth by Kamilldris, WIPO Pub. No. 888, January 2003.
3	Supplementary Reading Material	Erbisch, F.H. and Maredia, K., 1998, Intellectual Property Rights in Agricultural Biotechnology. CABI. Intellectual Property Rights: Key to New Wealth Generation. 2001. NRDC & Aesthetic Technologies. Patrick H. Sullivan, 2001. Profiting from Intellectual Capital : Extracting Value from Innovation, Wiley Robert P. Merges, Peter S. Menell, Mark A. Lemley, 2006. Intellectual Property in the Technological Age Alexander I. Poltorak, Paul J. Lerner, 2003. Essentials of Licensing Intellectual Property, Wiley Howard B. Rockman, 2004. Intellectual Property Law for Engineers and Scientists, IEEE Press, Wiley. (Textbook) H. Jackson Knight, 2002. Patent Strategy : For Researchers and Research Managers, Wiley.
4	Websites	http://www.managingip.com/ http://www.ifm.eng.cam.ac.uk/research/ctm/ http://hbswk.hbs.edu/ http://knowledge.wharton.upenn.edu/ http://www.technologymanagementchicago.org/
5	Journals	International Journal of Intellectual Property Management Journal of Intellectual Capital

Semester	IV	Elective	Technology Management
Course Code	411TM	Type	Subject – Elective
Course Title	Change , Creativity & Innovation		

Course Objectives:

1	To emphasize the key aspects of managing change and the drivers of innovation and creativity in organizations.
2	To deconstruct and demystify the processes of change, creativity and innovation in organizational context.

Syllabus:

Unit Number	Contents	Number of Sessions
1	The Process of Change, Creativity & Innovation: Organizational Change – Definition & Key Dimensions, Factors that Promote Change, Creativity & Innovation, Theories of Innovation, Levels & Types of Innovation, The age of Creativity, Creativity & National prosperity, Creative Industries & potential for growth.	5 + 1
2	The Individual – Promoting Critical Thinking: Cognitive factors - Implications for HRM, Personality Traits - Implications for HRM, Knowledge – Explicit & Implicit, Informal and Tacit, Knowledge for creativity - Implications for HRM, Motivation – Types of Motivation. The Group – Nurturing Team Work: Difference between groups and teams, Why do people join teams? Team Development process, Why do teams fail? Blind conformity, Group Think, Social loafing. Team Inputs - size, longevity, task, Knowledge, Skills and Abilities (KSAs), Resourcing of the team, Team composition. Team processes – Action processes. Brainstorming. Electronic Brainstorming. Nominal Group Technique (NGT). Trust – Conflict – Team cohesiveness. Moderators of Team Performance – Task Type, Task Leadership. Team outcomes.	5 + 1
3	The Leader – Promoting New Ideas at Work: Defining Leadership, Difference between Managers and Leaders, Ingredients of Leadership, Trait approaches to Leadership, Behavioural approaches to Leadership, Managerial Grid, Contingency theories – Fiedler model, Hersey Blanchard situational theory, Leader participation model, Push-Goal Theory. Transformational and transactional leadership. Charismatic and Visionary Leadership. Leading change, creativity & Innovation – Leadership and change, Ingredients of leadership for creativity & Innovation. Challenges in leading for creativity & Innovation.	5 + 1
4	The Internal Environment – Orchestrating Structure, Systems and Resources; The Balanced Score Card – Value Creation and Performance management. Organizational Structure – work specifications, departmentalization, chain of command, span of control, centralization and decentralization, Formalization. Situational factors – Corporate Strategy, Organizational Size, Environmental uncertainty. Structural forms – Traditional and contemporary forms. Organizing for change, creativity and innovation - Goal Setting and reward Systems. Evaluation. Resources – Sufficient resourcing. Systems of Communication.	5 + 1

5	<p>Culture – Enabling & Constraining Creative Processes at Work: Organizational culture, Different Perspectives of Organizational culture, Can we manage Organizational culture? Culture as an important ingredient of Organizational Creativity. Norms that promote Creativity and Innovation, Norms that promote Implementation. Principles of creativity and innovation. Do strong, cohesive cultures hinder innovation?</p> <p>The Organization – Managing Process of Change: Change and Organizations, Change Drivers, People and Change, The problem of resistance, Organizational Development approach to change, Situational Approach to Change Management, Political process approach to change management, Processual perspective for understanding change. Studying change over time.</p>	5 + 1
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Learning Resources:

1	Text Books	Managing Change, Creativity & Innovation, Constantine Andriopoulos and Patrick Dawson. Sage Publications.
2	Reference Books	Innovation Management , Allan Afuah, Oxford Indian Edition. Business Innovation in the 21 st Century, Praveen Gupta, S Chand. Innovation Management, ShlomoMaital and D V R Seshadri, Response Books, Sage Publications, New Delhi. Adair on Creativity and Innovation, Edited by Neil Thomas, Viva Books.
3	Supplementary Reading Material	Innovating at the Edge – How organizations Evolve and Embed Innovation Capability, Tim Jones, Butterworth-Hienemann, South Asian Edition. Managing Creativity & innovation, Harvard Business Essentials, Harvard Business School Press. The Innovator's ToolKit , Harvard Business Press. Fastrack to Success Innovation, Andy Bruce and David Birchall, Prentice Hall - Financial Times. Getting to Innovation, Arthur B Van Gundy, PHI – Eastern Economy Edition.
4	Websites	http://www.ifm.eng.cam.ac.uk/research/ctm/ http://hbswk.hbs.edu/ http://knowledge.wharton.upenn.edu/ http://www.technologymanagementchicago.org/
5	Journals	Cattani, G. & Simone Ferriani. 2008. A Core/Periphery Perspective on Individual Creative Performance, in Organization Science , 19(6): 824-844.

Semester	IV	Elective	Technology Management
Course Code	412TM	Type	Subject – Elective
Course Title	Seminar on Managing Emerging Technologies		

Course Objectives:	
1	To define the concept and scope of emerging technologies
2	To catalog and describe emerging technologies
3	To enable students to develop a systematic framework for analyzing emerging technologies
4	To discuss the possible managerial applications of these technologies

Students will work in groups of 2 or 3 each. They shall identify emerging technologies and explore applications of emerging technologies and document the same. The participants will determine the issues, questions, and areas that they would like to examine. The choice of technologies shall be shaped by the interests of the group participants as well as the relevance of specific technologies to managerial aspects in specific contexts.

Each group will prepare two presentations for class. Before, between, and after the presentations the group will post relevant articles, etc. for the rest of the class on the class website.

The idea is that each group will be working on their topic each week, but only present twice. However, the intervening work will be on the site for others to examine and discuss. This work on the site is each group's opportunity to try out ideas. It is also the opportunity for the other groups to pose questions that will help direct the group's research.

Towards the end the group will present their "findings" providing hard copies for every class member. As a class, students will brainstorm/explore the potential applications of the information, possibly around a theme.

The purpose is to examine critically the thinking and direction of other groups.

Learning Resources:		
1	Text Books	NA
2	Reference Books	NA
3	Supplementary Reading Material	NA
4	Websites	NA
5	Journals	NA

Semester	IV	Elective	Technology Management
Course Code	413TM	Type	Subject – Elective
Course Title	Marketing of High Technology Products		

Course Objectives:

1	To provide students with the concepts and tools necessary to effectively market a high technology product.
2	To help the students learn the marketing mix aspect of marketing high technology products.

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to High Technology: Common Characteristics of High Technology, Continuum of Innovations -Radical/Breakthrough Innovations - Incremental Innovations - Implications of Different Types of Innovations - Contingency Model for High-Tech Marketing - Does Marketing Need to Be Different for High-Technology Products and Innovations? - Framework for Making High-Technology Marketing Decisions.	5 + 1
2	Product Development and Management Issues in High-Tech Markets: Market Orientation, R&D–Marketing Interaction, High-Tech Marketing Research Tools - Concept Testing - Conjoint Analysis - Customer Visit Programs - Empathic Design - Lead Users - Quality Function Deployment - Prototype Testing - Beta Version Testing, Technology Development - The “What to Sell” Decision, Product Architecture: Modularity, Platforms and Derivatives, New Product Development Teams - Developing Services as Part of the High-Technology Product Strategy, Implications for High-Tech Marketing - Protection of Intellectual Property - Understanding Gray Markets - Black Markets, Piracy, and Restricted Exports - Managing Intellectual Property. Categories of Adopters - Crossing the Chasm. The Choice of Customer, Customer Strategies to Avoid Obsolescence, Customer Migration Decisions, Marketers’ Migration Options.	8 + 1
3	Pricing Considerations in High-Tech Markets: The High-Tech Pricing Environment, Customer Oriented Pricing- Steps and Implications. Pricing of After-Sales Service - The Technology Paradox- Solutions to the Technology (Pricing) Paradox - From Free to Fee. The Effect of the Internet on Pricing Decisions - Additional Pricing Considerations - Outright Sale of Know-How versus Licensing Agreements - Licensing Restrictions - Pay-Per-Use versus Subscription Pricing - Price Bundling – Leasing.	4 + 1
4	Distribution Channels in High-Tech Markets: Channel Considerations in High-Tech Markets - Blurring of Distinctions Between Members in the Supply Chain - Need for Indirect Channels to Provide Value for Manufacturers - Evolution of High-Tech Channels.	4 + 1
5	Advertising and Promotion in High-Tech Markets: Tools to Build and Maintain Customer Relationships: The Importance of Branding in High-Tech Markets, Developing a Strong Brand - Ingredient Branding - Branding for Small Business. New-Product Pre-announcements - Advantages and Objectives of Pre-announcements -Disadvantages of Pre-announcements - Tactical Considerations in the Pre-announcement Decision.	4 + 1

Learning Resources:		
1	Text Books	Marketing of High-Technology Products and Innovations by Jakki Mohr, SanjitSengupta, Stanley Slater, 2 nd Edition
2	Reference Books	Marketing High Technology by William H. Davidow Product Marketing for Technology Companies by Mark Butje
3	Supplementary Reading Material	Crossing the chasm: Marketing and Selling High Tech Products to Mainstream Customers by Geoffrey Moore Product Strategy for High Technology Companies by Michael E. McGrath. Next Generation Product Development : How to Increase Productivity, Cut Costs, and Reduce Cycle Times by Michael E. McGrath The Innovator's Dilemma by Clayton M. Christensen
4	Websites	http://marketinghightech.net/ http://www.ifm.eng.cam.ac.uk/research/ctm/ http://hbswk.hbs.edu/ http://knowledge.wharton.upenn.edu/
5	Journals	Drucker's Insights on Market Orientation and Innovation: Implications for Emerging Areas in High-technology Marketing by Mohr, Jakki J.; Sarin, Shikhar. Journal of the Academy of Marketing Science. Spring2009, Vol. 37 Issue 1, p85-96. High Technology Marketing: Conceptualization and Case Study by Yadav, Naveen; Swami, Sanjeev; Pal, Prosanto. Vikalpa: The Journal for Decision Makers. Apr-Jun2006, Vol. 31 Issue 2, p57-74. The Marketing of Innovations in High-technology Companies: A Network Approach by Borg, Erik A. European Journal of Marketing. 2009, Vol. 43 Issue 3/4, p364-370. Sales Forecasting in High-Technology Markets: A Utility-Based Approach by Decker, Reinhold; Gribba-Yukawa, Kumiko. Journal of Product Innovation Management, Jan2010, Vol. 27 Issue 1 Sales Forecasting of Products with Very Short Life Cycles by Pizzano, Rudolph. Journal of Business Forecasting, Summer2011, Vol. 30 Issue 2 Forecasting Organizational Adoption of High-technology Product Innovations separated by impact: Are traditional macro-level diffusion models appropriate? By McDade, Sean; Oliva, Terence A.; Thomas, Ellen. Industrial Marketing Management, Feb2010, Vol. 39 Issue 2, p298-307. What High-Tech Managers Need to Know About Brands by Ward, Scott; Light, Larry; Goldstine, Jonathan. Harvard Business Review. Jul/Aug1999, Vol. 77 Issue 4, p85-95. Innovation and the Management of Marketing in High Technology Small Firms by Oakley, Ray. Journal of Marketing Management. Oct91, Vol. 7 Issue 4, p343-356. Introduction to the Special Issue: Marketing Of High-Technology Products and Innovations by Mohr, Jakki J.; Shooshtari, Nader H. Journal of Marketing Theory & Practice. Summer2003, Vol. 11 Issue 3, p1-12. Success in High-Technology Markets: Is Marketing Capability Critical?byDutta, Shantanu; Narasimhan, Om; Rajiv, Surendra. Marketing Science. 1999, Vol. 18 Issue 4, p547-568. Sustaining Competitive Advantage in a High-Technology Environment: A Strategic Marketing Perspective by Rao, P. M. Advances in Competitiveness Research. 2005, Vol. 13 Issue 1, p33-47

Master of Business Administration (MBA) –Syllabus 2019 Pattern (revised)

2 year, 4 Semester Full time Programme Choice Based Credit System (CBCS) and Grading System Outcome Based Education Pattern

MBA I effective from AY 2022-23

MBA II effective from AY 2022-23

1.0 Preamble: The revised MBA Curriculum 2022 finetunes the MBA 2019 Pattern which was built upon the Choice Based Credit System (CBCS) and Grading System and the Outcome Based Education. The MBA Curriculum 2022 also incorporates several aspects of NEP.

2.0 Definitions:

2.1 Outcome Based Education:

2.1.1 Outcome Based Education (OBE) Approach: Outcomes are about performance, and this implies:

- There must be a performer – the student (learner), not only the teacher
- There must be something performable (thus demonstrable or assessable) to perform
- The focus is on the performance, not the activity or task to be performed

2.1.2 Programme Educational Objectives (PEOs): Programme Educational Objectives are a set of **broad future-focused student performance outcomes** that explicitly identify what students will be **able to do with what they have learned**, and **what they will be like** after they leave school and are **living full and productive lives**. Thus PEOs are what the programme is preparing graduates for in their **career and professional life** (to attain within a **few years** after graduation¹).

2.1.3 Graduate Attributes (GAs): Graduate Attributes (GAs) are the **qualities, knowledge and capabilities** that students are encouraged to take responsibility for developing throughout their studies and are the **defining characteristics** of the students passing out of the MBA program. These attributes include, but go **beyond, the disciplinary expertise or technical knowledge**.

2.1.4 Programme Outcomes (POs): Programme Outcomes are a set of **narrow statements** that describes what students (learners) **of the programme** are expected to know and be able to perform or attain **by the time of graduation**.

2.1.5 Programme Specific Outcomes (PSOs): Programme Outcomes are a set of **narrow statements** that describes what students (learners) **of a particular specialization of the programme** are expected to know and be able to perform or attain **by the time of graduation**. PSOs are also a function of the various course combinations offered by the Institute.

2.1.6 Learning Outcomes: A learning outcome is what a student CAN DO as a result of a learning experience. It describes a **specific task** that he/she is able to perform at a **given level of competence under a certain situation**. The three broad types of learning outcomes are:

- Disciplinary knowledge and skills
- Generic skills
- Attitudes and values

2.1.7 Course Outcomes (COs): A set of specific statements that describes the **complex performances** a student should be capable of as a result of **learning experiences within a course**.

2.1.8 Teaching and Learning Activities (TLAs): The set of **pedagogical tools and techniques** or the teaching and learning activities that aim to **help students to attain** the intended learning outcomes and engage them in these learning activities through the teaching process.

2.1.9 Assessment: It is the process of collecting, recording, scoring, describing and interpreting information about learning

2.1.10 Outcome Based Assessment (OBA): An assessment system that asks course teachers to first identify what it is that we expect students to be able to do once they have completed a course or program. It then asks course teachers to provide evidence that they are able to do so. In other words, how will each learning outcome be assessed? What **evidence of student learning** is most **relevant for each learning outcome** and **what standard or criteria** will be used to evaluate that evidence? Assessment is therefore a key part of outcome-based education and used to determine whether or not a qualification has been achieved.

2.1.11 Rubric (Assessment Rubric): A rubric for assessment, also called a scoring guide, is a tool used to interpret and grade students on any kind of work against criteria and standards.

2.2 Academic credit: An academic credit is a unit by which the course work (theory/ practical/ training) is measured. Each course may be allotted credits in proportion to the time expected to be devoted by the student for that course. Thus, it determines the number of hours of instructions required per week

¹ Graduation refers to passing out of the MBA programme. Graduation does NOT refer to 10+2+3/4 degree e.g. BA, BE, etc.

2.2.1 Credit: *In terms of credits, for a period of one semester of 15 weeks:*

- a) *every ONE hour session per week of L amounts to 1 credit per semester*
- b) *every TWO hour tutorial per week of L amounts to 1 credit per semester*
- c) *a minimum of TWO hours per week of P amounts to 1 credit per semester,*

Each credit is a combination of 3 components viz. Lecture (L) + Tutorials (T) + Practice (Practical / Project Work / Self Study) (P) i.e. LTP Pattern. Indicative LTP, for each course, is documented in the syllabus.

The course teacher may modify the LTP of the course in view of the course requirements, nature of the course, the level of learners and the type of pedagogy and assessment tools proposed. The modified LTP shall have to be approved by the Director / Head of the Department / Designated academic authority of the Institute.

2.2.2 Session: Each teaching-learning, evaluation session shall be of 60 minutes. However, institutes shall have the flexibility to define their time slots in a manner as to use their faculty and infrastructure resources in the best possible way and ensure effective learning.

2.2.3 Course Announcement: The institute shall announce the elective courses and specializations it proposes to offer the students out of the wider course basket. It is not mandatory to offer all the specializations and all the electives. The decision of the Director shall be final in this case. However, in the spirit of Choice Based Credit System, institutes should offer choices to the students for the elective courses and not offer only the minimum number of electives.

2.2.4 Course Registration: It is mandatory for every student, to register every semester, for the courses opted for that semester. Each student, on admission shall be assigned to a Faculty Advisor who shall advise her/him about the academic programs and counsel on the choice of courses considering the student's profile, career goals and courses taken in the earlier semesters. With the advice and consent of the Faculty Advisor, the student shall register for a set of courses he/she plans to take up for the Semester. Students shall have to register for the courses for the semester within first week of Semester I and immediately after conclusion of the preceding term for subsequent Semesters II, III and IV.

3.0 MBA Programme Focus:

3.1 Programme Educational Objectives (PEOs):

1. **PEO1:** Graduates of the MBA program will *successfully integrate core, cross-functional and inter-disciplinary aspects of management theories, models and frameworks with the real world practices and the sector specific nuances to provide solutions to real world business, policy and social issues in a dynamic and complex world.*
2. **PEO2:** Graduates of the MBA program will possess excellent *communication skills, excel in cross-functional, multi-disciplinary, multi-cultural teams,* and have an appreciation for *local, domestic and global contexts* so as to manage *continuity, change, risk, ambiguity and complexity.*
3. **PEO3:** Graduates of the MBA program will be appreciative of the significance of *Indian ethos and values in managerial decision making* and *exhibit value centered leadership.*
4. **PEO4:** Graduates of the MBA program will be ready to *engage in successful career pursuits* covering a broad spectrum of areas in *corporate, non-profit organizations, public policy, entrepreneurial ventures* and engage in *life-long learning.*
5. **PEO5:** Graduates of the MBA program will be recognized in their chosen fields for their *managerial competence, creativity & innovation, integrity & sensitivity* to local and global issues of social relevance and earn the *trust & respect* of others as *inspiring, effective and ethical leaders, managers, entrepreneurs, intrapreneurs* and change agents.

3.2 Programme Outcomes (POs): At the end of the MBA programme the learner will possess the

1. **Generic and Domain Knowledge** - Ability to articulate, illustrate, analyze, synthesize and apply the knowledge of principles and frameworks of management and allied domains to the solutions of real-world complex business issues
2. **Problem Solving & Innovation** - Ability to Identify, formulate and provide innovative solution frameworks to real world complex business and social problems by systematically applying modern quantitative and qualitative problem solving tools and techniques.
3. **Critical Thinking** - Ability to conduct investigation of multidimensional business problems using research based knowledge and research methods to arrive at data driven decisions
4. **Effective Communication** - Ability to effectively communicate in cross-cultural settings, in technology mediated environments, especially in the business context and with society at large
5. **Leadership and Team Work** - Ability to collaborate in an organizational context and across organizational boundaries and lead themselves and others in the achievement of organizational goals and optimize outcomes for all stakeholders.
6. **Global Orientation and Cross-Cultural Appreciation:** Ability to approach any relevant business issues from a global perspective and exhibit an appreciation of Cross Cultural aspects of business and management.
7. **Entrepreneurship** - Ability to identify entrepreneurial opportunities and leverage managerial & leadership skills for founding, leading & managing startups as well as professionalizing and growing family businesses.
8. **Environment and Sustainability** - Ability to demonstrate knowledge of and need for sustainable development and assess the impact of managerial decisions and business priorities on the societal, economic and environmental aspects.
9. **Social Responsiveness and Ethics** - Ability to exhibit a broad appreciation of the ethical and value underpinnings of managerial choices in a political, cross-cultural, globalized, digitized, socio-economic environment and distinguish between ethical and unethical behaviors & act with integrity.
10. **LifeLong Learning** – Ability to operate independently in new environment, acquire new knowledge and skills and assimilate them into the internalized knowledge and skills.

3.3 Programme Specific Outcomes (PSOs): It is expected that Institutes define the PSOs for each specialization / major-minor combination. PSOs shall also vary based upon the customized combination of Generic Core, Generic Elective, Subject Core, Subject Elective, Foundation, Enrichment & Alternative Study Credit Courses that they offer.

3.4 Graduate Attributes (GAs): At the end of the MBA programme the learner shall exhibit:

GA1: Managerial competence

GA2: Proficiency in Communication, Collaboration, Teamwork and Leadership

GA3: Competence in Creativity & Innovation

GA4: Research Aptitude, Scholarship & Enquiry

GA5: Global Orientation

GA6: Proficiency in ICT & Digital Literacy

GA7: Entrepreneurship & Intrapreneurship Orientation

GA8: Cross-functional & Inter-disciplinary Orientation

GA9: Results Orientation

GA10: Professionalism, Ethical, Values Oriented & Socially Responsible behaviour

GA11: Life-Long Learning Orientation

4.0 MBA Programme Course Types & Evaluation Pattern:

Sr.No.	Course Type	Credits	Nature	Formative Assessment (FA) Marks	Summative Evaluation (SE) Marks	Total Marks
BASIC COURSE TYPES						
1	Generic Core (GC)	3	Compulsory	50	50	100
2	Subject Core (SC)	3	Compulsory (Specialization specific)	50	50	100
3	Generic Elective (GE - UL)	2	Elective	0	50	50
4	Generic Elective (GE - IL)	2	Elective	50	0	50
5	Subject Elective (SE - IL)	2	Elective (Specialization specific)	50	0	50
6	Summer Internship Project (SIP)	6	Project (Compulsory)	50	50	100
ADDITIONAL COURSE TYPES						

1	Enrichment Courses (ENR)	1	Elective	25	0	25
2	Foundation Courses (FOU)	1	Elective	25	0	25
3	Alternative Study Credit Courses (ASCC)	2	Elective	50	0	50
4	Open Electives (OE)	3 or 2	Subject Core / Subject Elective	As per Subject Core / Subject Elective Pattern		

4.1 Course Types

- 4.1.1 **Foundation Course:** These courses focus on developing the basic abilities that support the understanding of other courses.
- 4.1.2 **Core courses** are the compulsory courses for all the students. Core courses are of two types: Generic Core & Subject Core.
- 4.1.3 **Generic Core:** This is the course which should compulsorily be studied by a candidate as a core requirement to complete the requirement of a degree in a said discipline of study. Therefore, Generic Core courses are mandatory and fundamental in nature. These courses cannot be substituted by any other courses. Such courses are also known as Hard Core Courses.
- 4.1.4 **Subject Core:** A Core course may be a Subject Core if there is a choice or an option for the candidate to choose from a broad category (grouping) of subjects (specializations / electives). These are also known as Soft Core Courses.
- 4.1.5 **Elective Course:** Elective course is a course which can be chosen from a pool of courses. It may be:
- Very Specialized or advanced course focusing on a specific aspect
 - Supportive to the discipline of study
 - Providing an extended scope
 - Enabling an exposure to some other discipline/domain
 - Nurturing candidate's proficiency/skills.
- 4.1.6 **Generic Elective:** An elective course which is common across disciplines / subjects is called a generic elective. 'Generic Elective' courses develop generic proficiencies amongst the students.
- 4.1.7 **Generic Elective – University Level:** These elective courses are supportive to the discipline of study and focus on the knowledge aspect of competence building. The course outcomes for such courses can be better assessed through traditional End Semester Evaluation (Summative Evaluation).
- 4.1.8 **Generic Elective – Institute Level:** These elective courses are aimed to develop inter-personal, technical and other skills aspect of competence building. The course outcomes for such courses can be better assessed through Comprehensive Concurrent Evaluation.
- 4.1.9 **Subject Elective:** A 'Discipline (specialization) centric' elective is called 'Subject Elective.' Subject Elective courses, in the Semester II, III and IV are focused on a specialization.
- 4.1.10 **Open Elective:** A subject elective course chosen generally from another Discipline / specialization / subject, with an intention to seek cross-functional exposure is called an Open Elective. A Subject Elective offered in one specialization area may be treated as an Open Elective by another specialization area and vice-a-versa.
- 4.1.11 **Enrichment Course:** This is a course generally offered to bright learners / fast learners for advanced inputs beyond the curriculum. Enrichment / Add-on Course shall be a 1 Credit Course. The course is of the nature of Course of Independent Study (CIS) and is designed for learners who have the ability and inclination to work independently with limited guidance, supervision and interaction with the faculty member(s).
- 4.1.12 **Alternative Study Credit Courses:** These courses prepare the learners for a VUCA (Volatile Uncertain, Complex and Ambiguous) world by going beyond the boundaries of their campus. Apart from core and elective courses, these courses engage students in discussion, debate and solution of real world challenges.
- 4.1.13 **Massive Open Online Courses (MOOCs)²:** Massive Open Online Courses (MOOCs) are such online courses which are developed as per the pedagogy stated in the AICTE regulation (2016) or equivalent; following the four quadrant approach and made available on the SWAYAM platform of Government of India.

² AICTE (Credit Framework for online learning course through SWAYAM) Regulations, 2016

4.2 MBA Programme Structure: The Basic Programme Structure shall be as depicted below

	Course#	Semester I		Semester II		Semester III		Semester IV		Credits	FA Marks	SE Marks
COMPULSORY CORE COURSES (GENERIC (GC) + SUBJECT (SC) + Summer Internship Project SIP)												
A	1	GC - 1	1	GC - 7	1	GC - 11	1	GC - 14	66 Credits	1050	1050	
	2	GC - 2	2	GC - 8	2	GC - 12	2	GC - 15				
	3	GC - 3	3	GC - 9	3	GC -13 (SIP)	3	SC - 5				
	4	GC - 4	4	GC - 10	4	SC - 3	4	SC - 6				
	5	GC - 5	5	SC - 1	5	SC - 4						
	6	GC - 6	6	SC - 2								
GENERIC ELECTIVE COURSES (UNIVERSITY LEVEL) – GE - UL												
B	7	GE UL - 1	7	GE UL - 4	6	GE UL – 7	5	GE UL - 10	22 Credits	0	550	
	8	GE UL - 2	8	GE UL - 5	7	GE UL – 8	6	GE UL - 11				
	9	GE UL - 3	9	GE UL - 6	8	GE UL – 9						
GENERIC / SUBJECT ELECTIVE COURSES (INSTITUTE LEVEL) - GE – IL / SE - IL												
C	10	GE IL - 1	10	GE IL - 4	9	SE IL -3	7	SE IL -6	22 Credits	550	0	
	11	GE IL - 2	11	SE IL -1	10	SE IL -4	8	SE IL -7				
	12	GE IL - 3	12	SE IL -2	11	SE IL -5						
										110	1600	1600
										43	Credits	FA SE
FOUNDATION COURSES (OPTIONAL)												
D	FOUNDATION 1		FOUNDATION 7						0 to 10 Credits			
	FOUNDATION 2		FOUNDATION 8									
	FOUNDATION 3		FOUNDATION 9									
	FOUNDATION 4		FOUNDATION 10									
	FOUNDATION 5											
	FOUNDATION 6											
ENRICHMENT COURSES (OPTIONAL)												
E	ENRICHMENT 1		ENRICHMENT 7		ENRICHMENT 11		ENRICHMENT 13		0 to 14 Credits			
	ENRICHMENT 2		ENRICHMENT 8		ENRICHMENT 12		ENRICHMENT 14					
	ENRICHMENT 3		ENRICHMENT 9									
	ENRICHMENT 4		ENRICHMENT 10									
	ENRICHMENT 5											
	ENRICHMENT 6											
ALTERNATIVE STUDY CREDIT COURSES (OPTIONAL)												
F	ASCC 1		ASCC 4		ASCC 7		ASCC 10		0 to 22 Credits			
	ASCC 2		ASCC 5		ASCC 8		ASCC 11					
	ASCC 3		ASCC 6		ASCC 9							

Note:

1. The basic programme structure comprises of Block A, B & C above.
2. Variations to the basic programme structure shall be defined at the institute level using any permissible combination of A,B,C,D,E and F blocks depicted above, taking into consideration institutional vision-mission-focus areas, industry demand, student learning capabilities, faculty competencies, availability of learning resources, etc. PSOs shall be appropriately defined by the institute.

LEGEND:

#	Block	FA - SA(Credits per course)	Course Type	Credits	Courses	Nature
1.1	A1	50-50 (3 Credits)	GENERIC CORE (GC)	42	14	COMPULSORY
1.2	A2	50-50 (3 Credits)	SUBJECT CORE (SC)	18	6	COMPULSORY
1.3	A3	50-50 (3 Credits)	PROJECT	6	1	COMPULSORY
2	B	0 - 50 (2 Credits)	GENERIC ELECTIVE (UNIVERSITY LEVEL) GE – UL	22	11	ELECTIVES
3.1	C1	50-0 (2 Credits)	GENERIC ELECTIVE (INSTITUTE LEVEL) GE – IL	8	4	ELECTIVES
3.4	C2	50-0 (2 Credits)	SUBJECT ELECTIVE (INSTITUTE LEVEL) SE - IL	14	7	ELECTIVES
			TOTAL	110	43	
OPTIONAL COURSES (In Lieu of C1 / C2 ONLY)						
4.1	D	25 - 0 (1 Credit)	FOUNDATION COURSES	0 -10	0 - 10	ELECTIVES
4.2	E	25 - 0 (1 Credit)	ENRICHMENT COURSES	0- 14	0 - 14	ELECTIVES
4.3	F	50 - 0 (2 Credits)	ALTERNATIVE STUDY CREDIT COURSES	0 -22	0 -11	ELECTIVES

5.0 Specializations offered: The following specializations shall be offered as MAJOR / MINOR:

1. Marketing Management (MKT)
2. Financial Management (FIN)
3. Human Resources Management (HRM)
4. Operations & Supply Chain Management (OSCM)
5. Business Analytics (BA)

The following specializations shall be offered ONLY as MINOR Specializations:

1. Rural & Agribusiness Management (RABM)
2. Pharma & Healthcare Management (PHM)
3. Tourism & Hospitality Management (THM)
4. International Business Management (IB)

Note:

1. Institutes may offer ONLY SELECT specializations based on industry needs, faculty strength & competencies, student demands, employability potential, etc.
2. Institutes MAY NOT offer a specialization if a **minimum of 20% of students** are not registered for that specialization.
3. The Institute MAY NOT offer an elective course if a **minimum of 20% of students** are not registered for that elective course.

5.1 Open Elective(s):

1. Learners who intend to learn specific courses from other specialization(s) can opt for Subject Elective (SE - IL) courses from other specializations in lieu of the Subject Elective (SE - IL) courses from their native specialization.
2. These open electives MAY BE from two different specializations.
3. Open Electives can be opted for only in Sem III and Sem IV.
4. Students can opt for maximum 1 Subject Elective (SE - IL) course in Sem III and Sem IV each. i.e. Students can opt for maximum 2 Open Electives (total 4 credits).

5.2 Major Specialization + Minor Specialization Combination:

1. For a **Major + Minor Specialization combination** the learner shall **complete**
 - a) Major Specialization – Courses: Total 9 (4 Subject Core courses and 5 Subject Elective courses)
 - b) Minor Specialization – Courses: Total 4 (2 Subject Core courses and 2 Subject Elective courses)
2. For a **Major + Minor Specialization combination** the learner shall **earn**
 - a) Major Specialization – Credits: Total 22 (12 Credits from Subject Core + Minimum 10 Credits from Subject Electives)
 - b) Minor Specialization – Credits: Total 10 (6 Credits from Subject Core + Minimum 4 Credits from Subject Electives)
3. The 10 credits of the MINOR specialization shall be from a single specialization, out of which 6 credits shall be mandatorily earned through the Subject Core Courses.
4. The Major + Minor specialization combination is OPTIONAL.
5. Students shall be permitted to opt for **ANY Major + ANY Minor** specialization combination, subject to institutional norms and guidelines, issued from time to time.

6. A student opting for Major + Minor specialization combination shall opt for Foundation Courses / Enrichment Courses / Alternative Study Credit Courses **ONLY in lieu of Generic Elective (GE - IL) Courses.**
7. Institutes may stipulate additional criteria of minimum SGPA / CGPA, number of backlogs, expectations about specific graduation discipline for students who wish to take up a specific specialization / specific major minor combination. Such criteria may also involve the potential employability criteria for a particular specialization / Major + Minor specialization combination.

5.3 Options & Guidelines for Choice of Specialization:

1. Students can opt for a single specialization (i.e. Major Only – 5 choices)
2. Students can opt for a two specializations (i.e. Major + Minor Combination – 1(Major) + 8(Minor) choices)
3. Specializations which are offered **ONLY** as MINOR shall be offered in **SECOND YEAR ONLY**. (4 choices)
8. Courses for the Minor specialization shall be taken up in the second year **ONLY** (in either Sem III or Sem IV or in a combination of Sem III and IV). **Courses Listed in a specific semester shall be available only in that semester. i.e. Courses listed in Semester III cannot be taken up in Semester IV or Semester II and like wise.**
4. The Major specialization of a student shall be determined by the Subject Core (SC) courses and the Subject Elective (SE - IL) courses chosen in Sem II.
5. All courses (Subject Core (SC) courses and the Subject Elective (SE - IL) courses) chosen in Sem II shall belong to the same specialization.
6. The learners shall generally complete 6 Subject Core courses (2 each in semester II, III, IV) and 7 Subject Elective courses (2, 3, 2 each in semester II, III, IV respectively). In this case he /she shall be awarded MBA (Functional Area Specialization) degree, e.g. MBA (Marketing), MBA (Finance), etc.
7. The learners shall complete 4 Subject Core courses and 5 Subject Elective courses of Major specialization and 2 Subject Core courses and 2 Subject Elective courses of Minor specialization. In this case he /she shall be awarded MBA (Functional Area Specialization Major + Functional Area Specialization Minor) degree, e.g. MBA (Marketing + Finance), etc.

5.4 Foundation Courses:

1. All the Foundation Courses shall be of 1 credit each.
2. Maximum credits for Foundation Courses **shall not exceed 10 (Ten) Credits.**
3. Foundation Courses can be opted for **ONLY IN LIEU** of Generic Elective (GE - IL) and / or Subject Elective (SE - IL) courses.³
4. This choice can be exercised in Semester I (minimum zero Credits – maximum six credits) or Semester II (minimum zero Credits – maximum four credits) **ONLY**.
5. Foundation Courses **CANNOT** be opted for in Sem III and in Sem IV.
6. It is **NOT MANDATORY** for a learner to opt for Foundation Courses. However, Faculty members may advise a student to enroll for Foundation Course(s) after a methodical assessment of the relevant competencies of the student.
7. Foundation Courses shall be offered **ONLY** to those students who lack the basic competencies in the specific course. The institute shall conduct a methodical assessment of the relevant competencies of the student. to identify the learners who need to take up foundation courses. Records of the evaluation shall be preserved.
8. Institutes may stipulate additional criteria for students desirous to take up Foundation Courses.
9. Foundation Courses shall be taught by the course teacher in workshop mode / project mode.
10. The course teacher shall oversee the progress of the learner as well as evaluate the learner for 25 marks / 1 credit.
11. Pre- and post-test: A test or other assessment activity shall be administered to the students both at the beginning of the foundation course and at the end of the foundation course, with the intention of demonstrating improved skills upon completion. The tests shall be essentially **SKILL** based.
12. Best of the two assessments shall be treated as the final evaluation.
13. The list of Foundation Courses is mentioned in Annexure I.

5.5 Enrichment Courses:

1. All the Enrichment Courses shall be of 1 credit each.
2. Maximum credits for Enrichment Courses **shall not exceed 14 (Fourteen) Credits.**
3. Enrichment Courses can be opted for, **ONLY IN LIEU** of Generic Elective (GE - IL) and / or Subject Elective (SE - IL) courses⁴.
4. This choice can be exercised in Semester I (minimum zero Credits – maximum six credits) or Semester II (minimum zero Credits – maximum four credits) or Semester III (minimum zero Credits – maximum two credits) or Semester IV (minimum zero Credits – maximum two credits).

³ Except for a learner who opts for Major + Minor Specialization combination

⁴ Except for a learner who opts for Major + Minor Specialization combination

5. It is NOT MANDATORY for a learner to opt for Enrichment Courses. However, Faculty members may advise a student to enroll for Enrichment Course(s) after a methodical assessment of the relevant competencies of the student.
6. Institutes may stipulate additional criteria for students desirous to take up Enrichment Courses.
7. Enrichment Courses shall be executed as **Course of Independent Study (CIS)** in guided self study mode.
8. A faculty guide shall be assigned for such courses. The learner shall select the Enrichment Course that he/she desires to opt for and submit an outline of the proposed study relevant to the course. The faculty guide shall approve the proposal after considering the nature of the work, learning effort required, desired outcomes and comprehensive coverage of the topic.
9. Since enrichment course is a guided self study course, 40 - 45 hours of work shall be equivalent to one credit. The faculty shall oversee the progress of the learner as well as evaluate the learner for 25 marks / 1 credit.
10. The learners shall document and submit details such as questionnaires, interview schedules, interview transcripts, observation sheets, photographs, testimonials from the organizations / persons interacted with, permission letters, acceptance letters, field work sampling plans, etc.
11. Enrichment Courses can be carried out in the campus library / in the campus IT lab / in a local community setting / in a start-up / in a government undertaking / in a NGO / in a cooperative / in a corporate entity.
12. The Enrichment Courses are organized in different Proficiency Tracks. Learners shall normally opt for enrichment courses from **NOT MORE THAN 3 Proficiency Tracks**.
13. **Enrichment Courses are of the following types:**
 - a) **Seminar** - Involves Desk Research of distributed learning material and information resources and submission and presentation of an analytical report. Maximum credits for Enrichment Courses of Seminar type shall not exceed 10 (Ten) Credits.
 - b) **Review** – Involves Desk Research of a small set of specific published reports/ databases and submission and presentation of an analytical report. Maximum credits for **Enrichment Courses of Seminar type** shall not exceed 10 (Ten) Credits.
 - c) **Case Study Development and Presentation** – Involves desk research and field work leading to the development, presenting and publishing of a case study. Maximum credits for **Enrichment Courses of Case Study Development and Presentation type** shall not exceed 10 (Ten) Credits.
 - d) **Project** – Involves field work leading to presentation of a comprehensive report based on the experiential learning. Maximum credits for **Enrichment Courses of Project type** shall not exceed 10 (Ten) Credits.
 - e) **Lab / Workshop** - Involves experiential learning through focused skill building activity. Maximum credits for **Enrichment Courses of Lab / Workshop type** shall not exceed 10 (Ten) Credits.
 - f) **Clinic / Fest** – Involves experiential learning through organizing an event / campaign. Maximum credits for **Enrichment Courses of Clinic / Fest type** shall not exceed 4 (Four) Credits.
 - g) **Personal Interest Course** - Involves experiential learning through club activities at the Institute Level. Maximum credits for **Enrichment Courses of Personal Interest Course type** shall not exceed 4 (Four) Credits.
14. A well documented and comprehensive spiral bound report / publication, with appropriate referencing, is essential for all the enrichment courses. Relevant Audio, Video Material, should be included as a part of the report.
15. The Evaluation for the Enrichment Courses shall be as follows –
 - a) Proposal and Scope of Work – 5 Marks
 - b) Report – 10 Marks
 - c) Presentation – 5 Marks
 - d) Viva Voce – 5 Marks
16. The presentation shall be similar to an open defence. The Viva Voce shall be carried out by minimum two faculty members including the guide.
17. The sum total of the number of Foundation Courses and the number of Enrichment Courses opted by a student in a particular semester should generally be an even number.
18. The list of Enrichment Courses is provided in Annexure I.

5.6 Alternative Study Credit Courses:

1. All the ASCC shall be of 2 credits each.
2. Maximum credits for ASCC **shall not exceed 22 (Twenty two) Credits**.
3. Alternative Study Credit Courses (ASCC) can be opted for, ONLY IN LIEU of Generic Elective (GE - IL) and / or Subject Elective (SE - IL) courses⁵.
4. This choice can be exercised in Semester I (minimum zero Credits – maximum six credits) or Semester II (minimum zero Credits – maximum six credits) or Semester III (minimum zero Credits – maximum six credits) or Semester IV (minimum zero Credits – maximum four credits). i.e. a learner may skip Generic Elective (GE - IL) courses all together and earn the required 22 credits entirely through ASCC.

⁵ Except for a learner who opts for Major + Minor Specialization combination

5. It is NOT MANDATORY for a learner to opt for Alternative Study Credit Courses. However, Faculty members may advise a student to enroll for Alternative Study Credit Course(s) after a methodical assessment of the relevant competencies of the student.
6. Institutes may stipulate additional criteria for students desirous to take up Alternative Study Credit Courses.
7. **A MINIMUM of 60% of the total credits earned by a learner through ASCC shall either be from MOOCs or from Professional Certification Programmes.**
8. Thus a learner may skip all Generic Elective (GE - IL) courses and skip all Subject Elective (SE - IL) courses and earn the required 22 credits entirely through ASCC.
9. The same TYPE of ASCC can be opted for multiple number of times. Norms for the same are prescribed in the relevant section later in this syllabus document. For e.g. A student may undertake 11 "Professional Certification Programs" and earn 22 credits or complete 11 MOOCs and earn 22 Credits.
10. ASCC shall be executed in online study mode / field work or project mode / certification mode.
11. A faculty guide shall be assigned for such courses. The faculty shall oversee the progress of the learner as well as evaluate the learner for 50 marks / 2 credits.
12. The learner shall select the ASCC that he/she desires to opt for and submit an outline of the proposed study relevant to the course. The faculty guide shall approve the proposal after considering the nature of the work, learning effort required, desired outcomes and comprehensive coverage of the topic.
13. There is no defined syllabus for the ASCC courses. Institutes shall define the syllabus and announce the same on the website.
14. Since ASCC is a guided self study course 40 - 45 hours of work shall be equivalent to one credit. The faculty shall oversee the progress of the learner as well as evaluate the learner for 50 marks / 2 credits.
15. The start date of the ASCC such as Professional Certifications shall be after the admission date for the MBA programme and the end date of the ASCC shall be within 6 months of the start date of the ASCC, but before the completion of Sem IV.
16. The list of ASCC is provided in Annexure I.

5.7 Combination of Options: A learner may opt for any combination of earning the 22 credits assigned to Generic Elective (GE - IL) courses and Subject Elective (SE - IL) courses through

- e) Generic Elective (GE - IL) courses
- f) Subject Elective (SE - IL) courses
- g) Open Elective Courses
- h) Major + Minor specialization combination
- i) Foundation Courses
- j) Enrichment Courses
- k) Alternative Study Credit Courses

SUBJECT TO THE minimum and maximum limits of credits prescribed and, subject to institutional norms and guidelines, issued from time to time.

6.0 Summer Internship Project: At the end of Second Semester each student shall undertake a Summer Internship Project (SIP) for a **minimum of 8 weeks**. For SIP, 1 credit is equivalent to minimum 40-45 hours of effective work. SIP shall have 6 credits. It is mandatory for the student to seek advance written approval from the faculty guide and the Director of the Institute about the topic and organization before commencing the SIP.

The SIP may or may not have a Functional Focus, i.e. the student may take up a SIP in his/her intended area of specialization or in any other functional area of management. **Ideally the SIP should exhibit a cross-functional orientation.**

SIP can be carried out in a

1. Corporate Entity
2. NGO
3. SME
4. Government Undertaking
5. Cooperative Sector.

SIP may be

1. a research project – based on primary / secondary data
2. may be an operational assignment involving working by the student on a given task/assignment/project/ etc. in an organization / industry.

It is expected that the SIP shall sensitize the students to the demands of the workplace and apply conceptual knowledge in practice..

Each student shall maintain a SIP Progress Diary detailing the work carried out and the progress achieved on a daily basis. The student shall submit a written structured SIP report based on work done during this period. The student shall submit the SIP Progress Diary along with the SIP Report.

Students shall also seek a formal evaluation of their SIP from the company guide. The formal evaluation by the company guide shall comment on the nature and quantum of work undertaken by the student, the effectiveness and overall professionalism. The learning outcomes of the SIP and utility of the SIP to the host organization must be specifically highlighted in the formal evaluation by the company guide. The SIP evaluation sheet duly signed and stamped by the industry guide shall be included in the final SIP report.

The SIP report must reflect 8 weeks of work and justify the same. The SIP report should be well documented and supported by –

1. Institute's Certificate
2. Certificate by the Company
3. Formal feedback from the company guide
4. Executive Summary
5. Organization profile
6. Outline of the problem/task undertaken
7. Research methodology & data analysis (in case of research projects only)
8. Relevant activity charts, tables, graphs, diagrams, AV material, etc.
9. Learning of the student through the project
10. Contribution to the host organization
11. References in appropriate referencing styles. (APA, MLA, Harvard, Chicago Style etc.)

The completion of the SIP shall be certified by the respective Faculty Guide & approved by the Director of the Institute. The external organization (Corporate / NGO/ SME/ Government Entity/ Cooperative/ etc.) shall also certify the SIP work.

The students shall submit a spiral bound copy of the SIP report by 15th September. The Institute shall conduct an internal viva-voce for evaluation of the SIP for 50 marks between 15th September to 30th September. The Panel shall comprise of two evaluators appointed by the Director of the Institute / Head of Department (for MBA departments in engineering colleges). Institutes are encouraged to involve senior alumni, industry experts, recruiters to conduct the internal viva-voce. The internal viva-voce panel shall provide a detailed assessment of the SIP report and suggest changes required, if any.

After the internal viva-voce, the student shall finalize the SIP report by incorporating all the suggestions and recommendations of the internal viva-voce panel. The internal guide shall then issue the Institute's Certificate to the student.

The student shall submit TWO hard copies & one soft copy (CD) of the project report before 30th October in Sem III. One hard copy of the SIP report is to be returned to the student by the Institute after the External Viva-Voce. In the interest of environmental considerations, students are encouraged to print their project reports on both faces of the paper. Spiral bound copies may be accepted.

There shall be an external viva-voce for the SIP for 50 marks. The external viva-voce shall be conducted after the theory exam of Semester III.

The Internal & the External viva-voce shall evaluate the SIP based on:

1. **Clear and concise objectives**
2. **Clear methodology, articulated using technical terms indicating all steps and tools**
3. **Citation of substantial current and good quality literature**
4. **Application of concepts learned in Sem I and II**
5. **Understanding of the organization and business environment**
6. **Benchmarks used / Assumptions made**
7. **Technical Writing & Documentation Skills**
8. **Interpretation of results and justification thereof and validity of the results presented**
9. **Utility of the project to the organization**
10. **Comprehensiveness and stakeholder relevance of the learning experience**

Copies of SIP report and records of evaluation shall be maintained by the Institute for a period of 3 academic years.

7.0 Formative Assessment (FA) / Concurrent Assessment (CA):

1. The course teacher shall prepare the scheme of Formative Assessment before commencement of the term. The scheme of Formative Assessment shall explicitly state the linkages of each Formative Assessment Item with the Course Outcomes and define the targeted attainment levels for each CO.
2. The Director / Head of the Department / designated academic authority shall approve the scheme of Formative Assessment with or without modifications.
3. The course teacher shall display, on the notice board, the approved Formative Assessment scheme of the course and the same shall also be hosted on the website, not later than the first week of the term.
4. Each Formative Assessment item shall be of minimum 25 marks.
5. For a 3 Credit Course there shall be a MINIMUM of three Formative Assessment items. The final scores shall be converted to 50, using an average or best two out of three formula.
6. For 2 Credit Course there shall be a MINIMUM of two Formative Assessment items. The final scores shall be converted to 50.
7. For a 1 Credit Course there shall be a MINIMUM of one Formative Assessment item.
8. Formative Assessment shall be spread through the duration of course and shall be conceptualized, executed, assessed and documented by the course teacher along with student-wise and class-wise attainment levels of the COs and the attainment levels of the course.
9. The assessment outcome of each Formative Assessment shall be duly signed by the course teacher, programme coordinator / academic head and the Director / Head of the Department / designated academic authority of the Institute.
10. A copy of the duly signed Formative Assessment *outcome* shall be displayed on the notice boards, within a week of the assessment and course teachers shall guide the students on a need basis.
11. Institute may conduct additional make up / remedial Formative Assessment items at its discretion.
12. At the end of the term aggregate Formative Assessment scores / grades shall be calculated and the CO attainment levels shall be calculated by the course teacher. The same shall be displayed on the notice board

7.1 Formative Assessment Methods: Student assessment should be as comprehensive as possible and provide meaningful and constructive feedback to faculty and student about the teaching-learning process. Over-use of question-answers may be discouraged for formative assessments. Course teachers shall opt for a combination of one or more FORMATIVE ASSESSMENT methods listed below.

Group A (Individual Assessment) – Not more than 1 per course

1. MCQs with multiple correct answers
2. Class Test
3. Open Book Test
4. Written Home Assignment
5. In-depth Viva-Voce

Group B (Individual Assessment) – Atleast 1 per course

6. Case Study
7. Caselet
8. Situation Analysis
9. Presentations

Group C (Group Assessment) – Not more than 1 per course

10. Field Visit / Study tour and report of the same
11. Small Group Project & Internal Viva-Voce
12. Model Development
13. Role Play
14. Story Telling
15. Fish Bowls

Group D (Creative - Individual Assessment) – Not more than 1 per course

16. Learning Diary
17. Scrap Book / Story of the week / Story of the month
18. Creating a Quiz
19. Designing comic strips / Cartoon strips
20. Drama scripts
21. Creating Brochures / Bumper Stickers / Fliers
22. Creating Crossword Puzzles
23. Creating and Presenting Posters
24. Writing an Advice Column
25. Library Magazines based assessment
26. Peer assessment

27. Autobiography/Biography
28. Writing a Memo
29. Work Portfolio

Group E (Use of Literature / Research Publications- Individual Assessment) – Not more than 1 per course

30. Book Review
31. Drafting a Policy Brief
32. Drafting an Executive Summary
33. Literature Review
34. Term Paper
35. Thematic Presentation
36. Publishing a Research Paper
37. Annotated Bibliography
38. Creating Taxonomy
39. Creating Concept maps

Group F (Use of Technology - Individual Assessment) – Not more than 1 per course

40. E-portfolios
41. Digital stories
42. eNewsletter, eMagazine
43. Recorded interviews of stakeholders posted on You Tube
44. Simulation Exercises
45. Gamification Exercises
46. Presentation based on Google Alerts
47. Webinar based assessment
48. Creating Webpage / Website / Blog
49. Creating infographics / infomercial
50. Creating podcasts / Newscast
51. Discussion Boards

Rubrics: The course teacher shall design Rubrics for each Formative Assessment. Rubrics are scoring tools that define performance expectations for learners. The course teacher shall seek approval for the rubrics from the Director / Head of the Department / other designated competent academic authority of the institute. The course teacher shall share the approved Rubrics with the students at the start of the course. The rubric shall detail the following:

1. Linkages of the Formative Assessment to COs.
2. A description of the assessment - brief concept note
3. Criteria that will be assessed - the expected learning outcomes.
4. Descriptions of what is expected for each assessment component - the expectations from the student.
5. Substantive description of the expected performance levels indicating mastering of various components - the assessment criteria.
6. The team composition, if applicable.
7. The format and mode of submission, submission timelines
8. Any other relevant details.

7.3 Safeguards for Credibility of Formative Assessment: The following practices are encouraged to enhance transparency and authenticity of concurrent evaluation:

1. Involving faculty members from other management institutes.
2. Setting multiple question paper sets and choosing the final question paper in a random manner.
3. One of the internal faculty members (other than the course teacher) acting as jury during activity based evaluations.
4. Involvement of Industry personnel in evaluating projects / field based assignments.
5. Involvement of alumni in evaluating presentations, role plays, etc.
6. 100% moderation of answer sheets, in exceptional cases.

7.4 Retention of Formative Assessment Documents: Records of FORMATIVE ASSESSMENT shall be retained for 3 years from the completion of the Academic Year. i.e. **Current Academic Year (CAY) + 3 years**. Likewise records of assessments to decide the learning needs of students for opting for **Foundation Courses / capabilities for Enrichment Courses/ ASCC/ start-up option** etc. shall be retained for 3 years from the completion of the Academic Year.

8.0 Summative Evaluation (End Semester Evaluation):

1. The Summative Evaluation for the Generic Core (GC), Subject Core (SC) and the Generic Elective (GE - UL) course shall be conducted by the Savitribai Phule Pune University.
2. The SE shall have 5 questions each of 10 marks.
3. All questions shall be compulsory with internal choice within the questions.
4. The broad structure of the SE question paper shall be as follows:

Question Number	COGNITIVE ABILITIES EVALUATED	Nature
Q.1	REMEMBERING	Answer any 5 out of 8 (2 marks each)
Q.2	UNDERSTANDING	Answer any 2 out of 3 (5 marks each)
Q.3	APPLYING	Answer 3 (a) or 3 (b) (10 marks)
Q.4	ANALYSING	Answer 4 (a) or 4 (b) (10 marks)
Q.5	EVALUATING	Answer 5 (a) or 5 (b) (10 marks)
	CREATING	

Either Question 4 or Question 5 shall involve a case study in the Summative Evaluation. i.e. Both 4 (a) or 4 (b) shall be a Case Study based question OR Both Question 5 (a) or 5 (b) shall be a case study based question.

9.0 Programme Flexibility:

9.1 Average Credits per semester, Fast & Slow Learners:

1. It is expected that a student registers for 30 credits in Semester I, II, III each and balance 20 credits in Semester IV.
2. **Fast learners** (under accelerated plan), may be permitted to register for upto 6 additional credits per semester, subject to fulfilling the pre-requisites defined for a course, if any. However the degree shall be awarded not earlier than the end of the 2 academic years since the first admission to the MBA programme.
3. **Slow learners**, may be permitted to register for less than the normal credits defined for a semester but shall have to complete the programme within the stipulated maximum duration of 4 academic years since the first admission to the MBA programme.

9.2 Dropping an Elective Course:

1. Students who opt for an elective course and fail to earn the credits for the elective course (generic / subject / open) are permitted to opt for another elective course (generic / subject / open) in case they feel to do so.
2. In such a case they shall be said to have dropped the original course and opted for a new one.
3. Generic Core (GC), Subject Core (SC) CANNOT be dropped.
4. Generic Elective (GE - UL), Generic Elective (GE - IL) & Subject Elective (SE - IL) can be dropped and replaced with equivalent alternative courses
5. Not more than four courses can be dropped and replaced with equivalent alternative courses during the entire MBA programme.

9.3 Horizontal or Lateral Credit Transfer:

1. When a learner successfully completes the courses included in an academic program at a certain level, he/she is allowed to transfer his/her credits in some of these courses to another same-level academic program having these courses in common. This is referred to as 'Horizontal or Lateral Credit Transfer'.
2. Horizontal or Lateral Credit Transfer shall be permitted **between the MBA and the MCA programme of SPPU** for the equivalent number of credits provided the courses are related to the MBA programme's PEOs and POs and are opted by the students during the period of his enrolment for the MBA programme.
3. The list of such courses eligible for Horizontal or Lateral Credit Transfer **between the MBA and the MCA programme of SPPU** shall be announced by the BOS/Faculty.
4. The upper limit for Horizontal or Lateral Credit Transfer shall be 6 credits.
5. Such transfer shall be permitted for Generic Elective (GE - IL) & Subject Elective (SE - IL) only.

9.4 Block Credit Transfer:

1. Block credit transfer refers to a group of courses, such as a completed certificate or diploma program that are accepted for transfer of credit into a degree program.
2. Block credit transfer shall be permitted for all **national and international professional certifications** achieved by the learner provided the **courses learning outcomes (CLOs)** are related to the **MBA programme's PEOs and POs** and are opted by the students **during the period of his enrolment for the MBA programme**. The institute shall verify the linkages between the CLOs and the MBA PEOs and POs.
3. Such transfer shall be permitted for Generic Elective (GE - IL) & Subject Elective (SE - IL) courses ONLY.

9.5 Credit Transfer for MOOCs:

1. Learners are encouraged to opt for MOOCs (Massive Online Open Courses) through **SWAYAM, NPTEL, EdX, Coursera, Udemy** as a part of ASCC.
2. Priority shall be given to the SWAYAM platform. If a course is not available of SWAYAM, other online platforms may be used.
3. Not more than 20% of the total credits (22 Credits) shall be earned through the MOOCs.
4. Not more than 20% of the credits per semester (6 credits) per semester shall be earned through the MOOCs.
5. Since MOOC is a guided self study course 40 - 45 hours of work shall be equivalent to one credit. The faculty shall oversee the progress of the learner as well as evaluate the learner for 50 marks / 2 credits.
6. Students shall apply to the Director / Head of the Department / other designated competent academic authority of the institute in advance and seek permission for seeking credit transfer for the proposed MOOCs, he/she wishes to pursue.
7. Online courses of SWAYAM or equivalent platform shall be allowed if:
 - a) There is non-availability of suitable teaching staff for running a course in the Institution or
 - b) The facilities for offering the elective papers (courses), sought for by the students are not on offer in the Institution, but are available on the SWAYAM or equivalent platform.
8. Evaluation of MOOCs through SWAYAM:
 - 8.1 In case of SWAYAM, the students shall be evaluated as a part of the MOOC itself by the host institution (i.e. institution who has launched the MOOC through SWAYAM).
 - 8.2 The evaluation should be based on predefined norms and parameter and shall be based on a concurrent comprehensive evaluation throughout the length and breadth of course based on specified instruments like discussions, forms, quizzes, assignments, sessional examinations and final examination.
 - 8.3 After conduct of the examination and completion of the evaluation, the host institution shall award marks/grade as per the evaluation scheme announced and communicate the marks/grade to the students as well the parent institution of the student, within 4 weeks from the date of completion of the final examination.
 - 8.4 The parent institution shall, incorporate the marks/grade obtained by the student, as communicated by the Host Institution of the SWAYAM course in the marks sheet of the student that counts for final award of the degree/diploma by the University with the proviso that the programs in which Lab/Practical Component is involved, the parent institution will evaluate the students for the practical/Lab component and accordingly incorporate these marks/grade in the overall marks/grade.
 - 8.5 A certificate regarding successful completion of the MOOCs course shall be signed by the PI and issued through the Host Institution and sent to the Parent Institution.
9. Evaluation of MOOCs through EdX, Coursera, Udemy:
 - 9.1 The concurrent comprehensive evaluation conducted by EdX, Coursera, Udemy may be adopted by the institute and the institute may accordingly incorporate these marks/grade in the overall marks/grade for the course.
 - 9.2 Alternatively, the institute may carry out a concurrent comprehensive evaluation of such students who undertake MOOCs through the EdX, Coursera, Udemy platform.

9.6 Professional Certification Programmes:

1. Learners may opt for Professional Certification Programmes as a part of ASCC. These Professional Certification Programmes shall be offered by National, International organizations, Apex bodies, Chambers of Commerce, Professional certifying bodies, E-learning companies of repute.
2. Not more than 20% of the total credits (22 Credits) shall be earned through the Professional Certification Programmes.
3. Not more than 20% of the credits per semester (6 credits) per semester shall be earned through the Professional Certification Programmes.
4. Students shall apply to the Director / Head of the Department / other designated competent academic authority of the institute in advance and seek permission for seeking credit transfer for the proposed Professional Certification Programmes, he/she wishes to pursue.
5. For Professional Certification Programmes, 40 - 45 hours of work shall be equivalent to one credit. The faculty shall oversee the progress of the learner as well as evaluate the learner for 50 marks / 2 credits.
6. A valid certificate regarding successful completion of the Professional Certification Programmes shall be submitted by the learner to the institute for claiming the 2 credits.
7. Indicative list is provided below -
 - i. Business English Certificate (Cambridge) / IELTS / TOEFL Certification
 - ii. Foreign Language Certification Equivalent to A1/A2 or above
 - iii. Google / MicroSoft / Oracle / Sun Certification
 - iv. NSE / BSE / NISM Certification

- v. SAP Financial Accounting (FI) / Controlling (CO) / Sales and Distribution (SD) / Production Planning (PP) / Materials Management (MM) / Quality Management (QM) / Human Capital Management (HCM) / CRM Certification
- vi. Six Sigma Certification
- vii. ISO Certification (as an auditor)
- viii. Tally ERP Certification
- ix. NLP Certification

9.7 Start-up: Launching and Sustaining' program⁶: AICTE has launched the 'Start-up: Launching and Sustaining' program to promote entrepreneurship.

Learners opting for the 'Start-up: Launching and Sustaining' program shall earn the credits for the Generic Core (GC), Subject Core (SC) & Generic Elective (GE - UL); with the minimum desired CGPA.

However, these learners shall skip the Generic Elective (GE - IL) & Subject Elective (SE - IL) courses and instead opt for the Milestone based concurrent comprehensive evaluation for 'Start-up: Launching and Sustaining' Programme as per the AICTE Policy laid down in this regard.

Such students shall have to fulfill two out of the five measurable outcomes as below:

- a) **Funding:** Student Start-up should acquire at least 1-5 Lakhs INR of start-up funding as capital/convertible equity or other similar equity instruments used in start-up investments.
- b) **Employment Created:** At least 5 additional jobs, (other than student founders) with a minimum of 15,000 CTC/employee/per month, paid for one full year, should be created by the student start-up.
- c) **Revenues Generated:** At least 5 Lakhs INR of Cumulative revenues should be generated by the student start-up as per Audited Profit and Loss Statements.
- d) **Surplus Generated:** At least 5 Lakhs INR of Cumulative surpluses should be generated by the student start-up as per Audited Profit and Loss Statements.
- e) **Patent Application or Granted:** The student start-up should have applied for registration of One Indian or International Patent OR such patent should be granted to the start-up

Other modalities and guidelines as per the AICTE policy shall be adhered to.

Students opting for the 'Start-up: Launching and Sustaining' program have the flexibility to create 'graduation outcomes' within 4 years of registering under the 'Start-up: Launching and Sustaining' program.

It would be mentioned in the Academic Transcript that the student has graduated through the 'Start-up: Launching and Sustaining' Graduation Programme.

Students who join only the 'Start-up: Launching and Sustaining' stream and are either unable to meet the requisite graduation outcomes or unable to continue for any reason can opt to fall back into the academic stream through the regular registration of the University Semesters.

SPPU may suitably verify the details of fulfilment of the two out of the five measurable outcomes listed above.

9.8 Additional Specialization:

- 1. A student who has earned the MBA with a MAJOR Specialization may enroll for additional specialization after passing out the regular MBA programme.
- 2. Additional specialization can be pursued in the MAJOR Specialization ONLY. i.e. Additional specialization cannot be pursued in the Specializations which are listed as MINOR ONLY.
- 3. Such students will be exempted from appearing for all the generic core and generic elective courses.
- 4. Such students shall have to appear for the subject core and subject elective courses of the additional specialization that they have opted for.
- 5. Students opting for MAJOR + MINOR specialization combination are NOT eligible to enroll for additional specialization.

10.0 Passing Standards:

- 1. A student shall be said to have earned the credits for a course if he/she earns minimum 40% marks.
- 2. Formative Assessment and Summative Evaluation shall be separate heads of passing.

10.1 Grading System: The Indirect and Absolute Grading System shall be used, i.e. the assessment of individual Courses in the concerned examinations will be on the basis of marks. However the marks shall later be converted into

⁶ As per AICTE Policy approved by the Executive Committee in its 100th meeting held on June 28, 2016

Grades by a defined mechanism wherein the overall performance of the learners can be reflected after considering the Credit Points for any given course. The overall evaluation shall be designated in terms of Grade. The 10 point standard scale mandated by UGC shall be used.

The performance of a student will be evaluated in terms of two indices, viz.

- (a) Semester Grade Point Average (SGPA) which is the Grade Point Average for a semester
- (b) Cumulative Grade Point Average (CGPA) which is the Grade Point Average for all the completed semesters at any point in time

10.2 Scaling Down of Formative Assessment Scores: The marks obtained by the student for the FORMATIVE ASSESSMENT shall be scaled down, to the required extent, if percentage of the marks of FORMATIVE ASSESSMENT exceeds the percentage of marks scored in the SE (End Semester University Examination) by 25% for the respective course.

10.3 Degree Requirements: The degree requirements for the MBA programme are completion of minimum 110 credits.

10.4 Maximum Attempts per Course:

1. A student shall earn the credits for a given course in maximum FOUR attempts.
2. Dropping a course and opting for another equivalent course can be done ONLY in the case of Generic Elective (GE - UL) , Generic Elective (GE - IL) and Subject Elective (SE - IL).
3. If a student drops a course and opts for another course in lieu of the dropped course the attempts utilized for the dropped course shall be included in the maximum 4 attempts available to earn the credits for a course.
4. The facility of dropping a course and opting for a new course in lieu of the dropped course shall be availed by the student only once per course during these four attempts available to him.
5. A student may drop at the most 4 courses (GE – UL / GE – IL / SE – IL).

10.5 Maximum Duration for completion of the Programme: The candidates shall complete the MBA Programme within 4 years from the date of admission.

10.6 Grade Improvement:

1. A Candidate who has secured any grade other than F (i.e. passed the MBA programme) and desires to avail the Grade Improvement option, may apply under Grade Improvement Scheme within five years from passing that Examination.
2. He/she can avail not more than three attempts, according to the syllabus in existence, for grade improvement.
3. He /she shall appear for University Evaluation of **at least 1/3rd** of the Generic Core / Subject Core Courses (except SIP) for the purpose of Grade Improvement.
4. Generic Elective (GE - UL), Generic Elective (GE - IL) & Subject Elective (SE - IL) cannot be selected for Grade Improvement.

11. Miscellaneous

11.1 Attendance: The student must meet the requirement of **75% attendance per semester per course** for grant of the term. The institute may condone the shortage in attendance in exceptional circumstances, up to a maximum of 10%. The institute shall have the right to withhold the student from appearing for examination of a specific course if the above requirement is not fulfilled.

11.2 Medium of Instruction: The medium of Instruction & Evaluation shall be English.

11.3 LTP indicated in the syllabus is indicative.

11.4 Numbers indicated against each unit indicate L+T. These are indicative in nature. Course teachers may modify based on teaching & assessment, evaluation methods adopted.

11.5 Text Books and Reference Books refer to latest edition.

12. Detailed Course List for each category of courses is provided in Annexure I.

13. Detailed syllabus of each course is provided in Annexure II.

ANNEXURE I

GENERIC CORE (GC) COURSES – 3 Credits Each			
50 Marks FORMATIVE ASSESSMENT, 50 Marks SUMMATIVE EVALUATION			
Course No.	Course Code	Course	Semester
101	GC – 01	Managerial Accounting	I
102	GC – 02	Organizational Behaviour	I
103	GC – 03	Economic Analysis for Business Decisions	I
104	GC – 04	Business Research Methods	I
105	GC – 05	Basics of Marketing	I
106	GC – 06	Digital Business	I
201	GC – 07	Marketing Management	II
202	GC – 08	Financial Management	II
203	GC – 09	Human Resources Management	II
204	GC – 10	Operations & Supply Chain Management	II
301	GC – 11	Strategic Management	III
302	GC – 12	Decision Science	III
303	GC – 13	Summer Internship Project*	III
401	GC – 14	Enterprise Performance Management	IV
402	GC – 15	Indian Ethos & Business Ethics	IV

* Six Credits

GENERIC ELECTIVES UNIVERSITY LEVEL (GE – UL) COURSES – 2 Credits Each			
00 Marks FORMATIVE ASSESSMENT , 50 Marks SUMMATIVE EVALUATION			
Course #	Course Code	Course	Semester
Any 3 courses to be selected from the following list in Semester I			
107	GE - UL - 01	Management Fundamentals	I
108	GE - UL - 02	Indian Economy	I
109	GE - UL - 03	Entrepreneurship Development	I
110	GE - UL - 04	Essentials of Psychology for Managers	I
111	GE - UL - 05	Legal Aspects of Business	I
112	GE - UL - 06	Demand Analysis & Forecasting	I
Any 3 courses to be selected from the following list in Semester II			
207	GE - UL - 07	Contemporary Frameworks in Management	II
208	GE - UL - 08	Geopolitics & World Economic Systems	II
209	GE - UL - 09	Start Up and New Venture Management	II
210	GE - UL - 10	Qualitative Research Methods	II
211	GE - UL - 11	Business, Government & Society	II
212	GE - UL - 12	Business Process Re-engineering	II
Any 3 courses to be selected from the following list in Semester III			
306	GE - UL - 13	International Business Economics	III
307	GE - UL - 14	International Business Environment	III
308	GE - UL - 15	Project Management	III
309	GE - UL - 16	Knowledge Management	III
310	GE - UL - 17	Corporate Governance	III
311	GE - UL - 18	Management of Non-profit organizations	III
Any 2 courses to be selected from the following list in Semester IV			
405	GE - UL - 19	Global Strategic Management	IV
406	GE - UL - 20	Technology Competition and Strategy	IV
407	GE - UL - 21	Cyber Laws	IV
408	GE - UL - 22	Corporate Social Responsibility & Sustainability	IV

GENERIC ELECTIVES INSTITUTE LEVEL (GE – IL) COURSES – 2 Credits Each			
50 Marks FORMATIVE ASSESSMENT , 00 Marks SUMMATIVE EVALUATION			
Course No.	Course Code	Course	Semester
Maximum 3 courses to be selected from the following list in Semester I			
113	GE - IL - 01	Verbal Communication Lab	I
114	GE - IL - 02	Enterprise Analysis & Desk Research	I
115	GE - IL - 03	Selling & Negotiation Skills Lab	I
116	GE - IL - 04	MS Excel	I
117	GE - IL - 05	Business Systems & Procedures	I
118	GE – IL- 06	Managing Innovation	I
119	GE – IL- 07	Foreign Language – I	I
Maximum 1 course to be selected from the following list in Semester II			
213	GE – IL - 08	Written Analysis and Communication Lab	II
214	GE – IL - 09	Industry Analysis & Desk Research	II
215	GE – IL - 10	Entrepreneurship Lab	II
216	GE – IL - 11	SPSS	II
217	GE – IL - 12	Foreign Language – II	II

SUBJECT CORE (SC) COURSES: Specialization – Marketing Management (MKT)			
3 Credits Each, 50 Marks FORMATIVE ASSESSMENT, 50 Marks SUMMATIVE EVALUATION			
Course No.	Course Code	Course	Semester
205 MKT	SC – MKT- 01	Marketing Research	II
206 MKT	SC – MKT- 02	Consumer Behaviour	II
304 MKT	SC – MKT- 03	Services Marketing	III
305 MKT	SC – MKT- 04	Sales & Distribution Management	III
403 MKT	SC – MKT- 05	Marketing 4.0	IV
404 MKT	SC – MKT- 06	Marketing Strategy	IV

SUBJECT ELECTIVE (SE - IL) COURSES: Specialization – Marketing Management (MKT)			
2 Credits Each, 50 Marks FORMATIVE ASSESSMENT, 00 Marks SUMMATIVE EVALUATION			
Course No.	Course Code	Course	Semester
Maximum 2 courses to be selected from the following list in Semester II			
217 MKT	SE – IL - MKT- 01	Integrated Marketing Communications	II
218 MKT	SE – IL - MKT- 02	Product & Brand Management	II
219 MKT	SE – IL - MKT- 03	Personal Selling Lab	II
220 MKT	SE – IL - MKT- 04	Digital Marketing - I	II
221 MKT	SE – IL - MKT- 05	Marketing of Financial Services - I	II
222 MKT	SE – IL - MKT- 06	Marketing of Luxury Products	II
Maximum 3 courses to be selected from the following list in Semester III			
312 MKT	SE – IL - MKT- 07	Business to Business Marketing	III
313 MKT	SE – IL - MKT- 08	International Marketing	III
314 MKT	SE – IL - MKT- 09	Digital Marketing - II	III
315 MKT	SE – IL - MKT- 10	Marketing of Financial Services - II	III
316 MKT	SE – IL - MKT- 11	Marketing Analytics	III
317 MKT	SE – IL - MKT- 12	Marketing of High Technology Products	III
Maximum 2 courses to be selected from the following list in Semester IV			
409 MKT	SE – IL - MKT- 13	Customer Relationship Management	IV
410 MKT	SE – IL - MKT- 14	Rural & Agriculture Marketing	IV
411 MKT	SE – IL - MKT- 15	Tourism & Hospitality Marketing	IV
412 MKT	SE – IL - MKT- 16	Retail Marketing	IV
413 MKT	SE – IL - MKT- 17	Retailing Analytics	IV
414 MKT	SE – IL - MKT- 18	Marketing to Emerging Markets & Bottom of the Pyramid	IV

SUBJECT CORE (SC) COURSES: Specialization – Financial Management (FIN)			
3 Credits Each, 50 Marks FORMATIVE ASSESSMENT, 50 Marks SUMMATIVE EVALUATION			
Course No.	Course Code	Course	Semester
205 FIN	SC – FIN - 01	Financial Markets and Banking Operations	II
206 FIN	SC – FIN - 02	Personal Financial Planning	II
304 FIN	SC – FIN - 03	Advanced Financial Management	III
305 FIN	SC – FIN - 04	International Finance	III
403 FIN	SC – FIN - 05	Financial Laws	IV
404 FIN	SC – FIN - 06	Current Trends & Cases in Finance	IV

SUBJECT ELECTIVE (SE - IL) COURSES: Specialization – Financial Management (FIN)			
2 Credits Each, 50 Marks FORMATIVE ASSESSMENT, 00 Marks SUMMATIVE EVALUATION			
Course No.	Course Code	Course	Semester
Maximum 2 courses to be selected from the following list in Semester II			
217 FIN	SE – IL - FIN - 01	Securities Analysis & Portfolio Management	II
218 FIN	SE – IL - FIN - 02	Futures and Options	II
219 FIN	SE – IL - FIN - 03	Direct Taxation	II
220 FIN	SE – IL - FIN - 04	Financial Reporting	II
221 FIN	SE – IL - FIN - 05	Retail Credit Management- Lending & Recovery	II
222 FIN	SE – IL - FIN - 06	Banking Laws & Regulations	II
223 FIN	SE – IL - FIN - 07	Fundamentals of Life Insurance – Products and Underwriting	II
224 FIN	SE – IL - FIN - 08	General Insurance - Health and Vehicle	II
Maximum 3 courses to be selected from the following list in Semester III			
312 FIN	SE – IL - FIN - 09	Behavioural Finance	III
313 FIN	SE – IL - FIN - 10	Technical Analysis of Financial Markets	III
314 FIN	SE – IL - FIN - 11	Commodities Markets	III
315 FIN	SE – IL - FIN – 12	Indirect Taxation	III
316 FIN	SE – IL - FIN – 13	Corporate Financial Restructuring	III
317 FIN	SE – IL - FIN - 14	Financial Modeling	III
318 FIN	SE – IL - FIN – 15	Digital Banking	III
319 FIN	SE – IL - FIN – 16	Treasury Management	III
320 FIN	SE – IL - FIN – 17	Project Finance and Trade Finance	III
321 FIN	SE – IL - FIN – 18	Insurance Laws & Regulations	III
322 FIN	SE – IL - FIN – 19	Marine Insurance	III
323 FIN	SE – IL - FIN – 20	Fire Insurance	III
Maximum 2 courses to be selected from the following list in Semester IV			
409 FIN	SE – IL - FIN – 21	Fixed Income Securities	IV
410 FIN	SE – IL - FIN – 22	Business Valuation	IV
411 FIN	SE – IL - FIN – 23	Risk Management	IV
412 FIN	SE – IL - FIN – 24	Strategic Cost Management	IV
413 FIN	SE – IL - FIN – 25	Rural and Micro Finance	IV
414 FIN	SE – IL - FIN - 26	Reinsurance	IV
415 FIN	SE – IL - FIN – 27	Agricultural Insurance	IV

SUBJECT CORE (SC) COURSES: Specialization – Human Resource Management (HRM)			
3 Credits Each, 50 Marks FORMATIVE ASSESSMENT, 50 Marks SUMMATIVE EVALUATION			
Course No.	Course Code	Course	Semester
205 HR	SC – HRM – 01	Competency Based Human Resource Management	II

206 HR	SC – HRM – 02	Employee Relations & Labour Legislation	II
304 HR	SC – HRM - 03	Strategic Human Resource Management	III
305 HR	SC – HRM - 04	HR Operations	III
403 HR	SC – HRM - 05	Organizational Diagnosis & Development	IV
404 HR	SC – HRM - 06	Current Trends & Cases in Human Resource Management	IV

SUBJECT ELECTIVE (SE - IL) COURSES: Specialization – Human Resource Management (HRM)			
2 Credits Each, 50 Marks FORMATIVE ASSESSMENT, 00 Marks SUMMATIVE EVALUATION			
Course No.	Course Code	Course	Semester
Maximum 2 courses to be selected from the following list in Semester II			
217 HRM	SE – IL - HRM - 01	Labour Welfare	II
218 HRM	SE – IL - HRM - 02	Lab in Recruitment and Selection	II
219 HRM	SE – IL - HRM - 03	Learning and Development	II
220 HRM	SE – IL - HRM - 04	Public Relations & Corporate Communications	II
221 HRM	SE – IL - HRM - 05	HR Analytics	II
222 HRM	SE – IL - HRM - 06	Conflict and Negotiation Management	II
Maximum 3 courses to be selected from the following list in Semester III			
312 HR	SE – IL - HRM - 07	Talent Management	III
313 HR	SE – IL - HRM - 08	Psychometric Testing and Assessment	III
314 HR	SE – IL - HRM - 09	HR perspective in Mergers and Acquisition	III
315 HR	SE – IL - HRM - 10	International HR	III
316 HR	SE – IL - HRM - 11	Mentoring and Coaching	III
317 HR	SE – IL - HRM - 12	Compensation and Reward management	III
318 HR	SE – IL - HRM - 13	Performance Management System	III
319 HR	SE – IL - HRM - 14	Change Management & New Technologies in HRM	III
Maximum 2 courses to be selected from the following list in Semester IV			
409 HR	SE – IL - HRM - 15	Labour Legislation	IV
410 HR	SE – IL - HRM - 16	Designing HR Policies	IV
411 HR	SE – IL - HRM - 17	Labour Economics and Costing	IV
412 HR	SE – IL - HRM - 18	Best Practices in HRM	IV
413 HR	SE – IL - HRM - 19	Employee Engagement and Ownership	IV
414 HR	SE – IL - HRM – 20	Leadership and Succession Planning	IV
415 HR	SE – IL - HRM - 21	E - HRM	IV

SUBJECT CORE (SC) COURSES: Specialization – Operations & Supply Chain Management (OSCM)			
3 Credits Each, 50 Marks FORMATIVE ASSESSMENT, 50 Marks SUMMATIVE EVALUATION			
Course No.	Course Code	Course	Semester
205 OSCM	SC – OSCM - 01	Services Operations Management - I	II
206 OSCM	SC – OSCM - 02	Supply Chain Management	II
304 OSCM	SC – OSCM - 03	Services Operations Management - II	III
305 OSCM	SC – OSCM - 04	Logistics Management	III
403 OSCM	SC – OSCM - 05	E Supply Chains & Logistics	IV
404 OSCM	SC – OSCM - 06	Industry 4.0	IV

SUBJECT ELECTIVE (SE - IL) COURSES : Specialization – Operations & Supply Chain Management (OSCM)			
2 Credits Each, 50 Marks FORMATIVE ASSESSMENT, 00 Marks SUMMATIVE EVALUATION			
Course No.	Course Code	Course	Semester
Maximum 2 courses to be selected from the following list in Semester II			
217 OSCM	SE – IL - OSCM - 01	Planning & Control of Operations	II
218 OSCM	SE – IL - OSCM - 02	Productivity Management	II
219 OSCM	SE – IL - OSCM - 03	Inventory Management	II
220 OSCM	SE – IL - OSCM - 04	Theory of Constraints	II
221 OSCM	SE – IL - OSCM - 05	Quality Management Standards	II
222 OSCM	SE – IL - OSCM - 06	Service Value Chain Management	II
Maximum 3 courses to be selected from the following list in Semester III			
312 OSCM	SE – IL - OSCM – 07	Manufacturing Resource Planning	III
313 OSCM	SE – IL - OSCM – 08	Sustainable Supply Chains	III
314 OSCM	SE – IL - OSCM – 09	Business Excellence	III
315 OSCM	SE – IL - OSCM – 10	Toyota Production System	III
316 OSCM	SE – IL - OSCM – 11	Operations and Services Strategy	III
317 OSCM	SE – IL - OSCM – 12	Six Sigma for Operations	III
Maximum 2 courses to be selected from the following list in Semester IV			
409 OSCM	SE – IL - OSCM – 14	Enterprise Resource Planning	IV
410 OSCM	SE – IL - OSCM – 15	World Class Manufacturing	IV
411 OSCM	SE – IL - OSCM – 16	Supply Chain Strategy	IV
412 OSCM	SE – IL – OSCM – 17	Financial Perspectives in Operations Management	IV
413 OSCM	SE – IL - OSCM – 18	Facilities Planning	IV
414 OSCM	SE – IL - OSCM – 19	Purchasing and Supplier Relationship Management	IV
415 OSCM	SE – IL - OSCM - 20	Strategic Supply Chain Management	IV

SUBJECT CORE (SC) COURSES: Specialization – Business Analytics (BA)			
3 Credits Each, 50 Marks FORMATIVE ASSESSMENT, 50 Marks SUMMATIVE EVALUATION			
Course No.	Course Code	Course	Semester
205 BA	SC – BA - 01	Basic Business Analytics using R	II
206 BA	SC – BA - 02	Data Mining	II
304 BA	SC – BA - 03	Advanced Statistical Methods using R	III
305 BA	SC – BA - 04	Machine Learning & Cognitive intelligence using Python	III
403 BA	SC – BA - 05	Economics of Network Industries	IV
404 BA	SC – BA - 06	Artificial Intelligence in Business Applications	IV

SUBJECT ELECTIVE (SE - IL) COURSES: Specialization – Business Analytics (BA)			
2 Credits Each, 50 Marks FORMATIVE ASSESSMENT, 00 Marks SUMMATIVE EVALUATION			
Course No.	Course Code	Course	Semester
Maximum 2 courses to be selected from the following list in Semester II			
217 BA	SE – IL - BA - 01	Marketing Analytics	II
218 BA	SE – IL - BA - 02	Retailing Analytics	II
219 BA	SE – IL - BA - 03	Workforce Analytics	II
220 BA	SE – IL - BA - 04	Tableau	II
221 BA	SE – IL - BA - 05	Data Warehousing Project Life Cycle Management	II
Maximum 3 courses to be selected from the following list in Semester III			
312 BA	SE – IL - BA – 06	Social Media, Web & Text Analytics	III
313 BA	SE – IL - BA – 07	Industrial Internet of Things	III
314 BA	SE – IL - BA – 08	Supply Chain Analytics	III
315 BA	SE – IL - BA – 09	Cognos Analytics	III
316 BA	SE – IL - BA – 10	Predictive Modelling using SPSS Modeler	III
317 BA	SE – IL - BA – 11	E commerce Analytics - I	III
Maximum 2 courses to be selected from the following list in Semester IV			
409 BA	SE – IL - BA - 13	E Commerce Analytics - II	IV
410 BA	SE – IL - BA - 14	Healthcare Analytics	IV
411 BA	SE – IL - BA – 15	Watson	IV
412 BA	SE – IL - BA – 16	Scala and Spark	IV

[D] FOUNDATION (FOU) COURSES (ELECTIVES) – 1 Credit Each			
25 Marks FORMATIVE ASSESSMENT, 00 Marks SUMMATIVE EVALUATION			
Between ZERO to SIX courses to be selected from the following list in Semester I and / or Between ZERO to FOUR courses to be selected from the following list in Semester II			
Course No.	Course Code	Course	Semester
1	FOU - 001	Elementary English	I
2	FOU - 002	Elementary Mathematics & Statistics	I
3	FOU - 003	Elementary Economics	I
4	FOU - 004	Elementary Accounting	I
5	FOU - 005	Elementary Information Technology	I
6	FOU - 006	Elementary Business Etiquette	I
7	FOU - 007	Elementary MS WORD	II
8	FOU - 008	Elementary MS POWERPOINT	II
9	FOU - 009	Elementary Data Interpretation & Logical Reasoning	II
10	FOU - 010	Elementary Verbal and Reading Comprehension	II
11	FOU - 011	Elementary Quantitative Ability	II

[E] ENRICHMENT (ENR) COURSES (ELECTIVES) – 1 Credit Each				
25 Marks FORMATIVE ASSESSMENT, 00 Marks SUMMATIVE EVALUATION				
Between ZERO to SIX courses to be selected from the following list in Semester I and / or Between ZERO to FOUR courses to be selected from the following list in Semester II and / or Between ZERO to TWO courses to be selected from the following list in Semester III and / or Between ZERO to FOUR courses to be selected from the following list in Semester IV				
Course No	Course Code	Proficiency Track	Course	Semester
1	ENR - 1	Entrepreneurship	Entrepreneurship in The Online Economy – Seminar	Any
2	ENR - 2	Entrepreneurship	Management Skills for MSMEs – Seminar	Any
3	ENR - 3	Entrepreneurship	Business Plan for Small Business - Case Study Development and Presentation	Any
4	ENR - 4	Entrepreneurship	The Elevator Pitch - Case Study Development and Presentation	Any
5	ENR - 5	Entrepreneurship	Private Equity – Seminar	Any
6	ENR - 6	Entrepreneurship	Launching & Sustaining Start-Ups- Case Study Development and Presentation	Any
7	ENR - 7	Entrepreneurship	Start-Up Fest	Any
8	ENR - 8	Entrepreneurship	Marketing on a shoe string budget for Small Business - Case Study Development and Presentation	Any
9	ENR - 9	Entrepreneurship	Growing business through Franchising - Case Study Development and Presentation	Any
10	ENR - 10	Entrepreneurship	Finance and Accounting aspects of Small Businesses - Case Study Development and Presentation	Any
11	ENR - 11	Entrepreneurship	Planning, Structuring, and Financing Small Businesses - Case Study Development and Presentation	Any
12	ENR - 12	Entrepreneurship	Digital Marketing for MSMEs- Case Study Development and Presentation	Any
13	ENR - 13	Entrepreneurship	Legal Compliances for MSMEs – Seminar	Any
14	ENR - 14	Entrepreneurship	Contemporary Indian Models in Entrepreneurship - Case Study Development and Presentation	Any
15	ENR - 15	Entrepreneurship	Women Entrepreneurs in Contemporary India - Case Study Development and Presentation	Any
16	ENR - 16	Desk Research	Review of National Databases & Reports	Any
17	ENR - 17	Desk Research	Review of Industry Databases	Any
18	ENR - 18	Desk Research	Review of Industry Best Practice Surveys	Any
19	ENR - 19	Desk Research	Review of Global Best Practice Surveys	Any
20	ENR - 20	Desk Research	Review of TED Talks	Any
21	ENR - 21	Desk Research	Book Reviews	Any
22	ENR - 22	Desk Research	Emerging Trends in Business - Seminar	Any
23	ENR - 23	Desk Research	Best Business Practices - Case Study Development and Presentation	Any
24	ENR - 24	Desk Research	Disruptive Business Practices - Case Study Development and Presentation	Any

25	ENR - 25	Desk Research	Business Houses & Business Families in India - Case Study Development and Presentation	Any
26	ENR - 26	Desk Research	Industry Specific Governance & Compliances - Seminar	Any
27	ENR - 27	Desk Research	Business Excellence Awards & Awardees - Case Study Development and Presentation	Any
28	ENR - 28	Managerial Effectiveness	Design Thinking Workshop	Any
29	ENR - 29	Managerial Effectiveness	Problem Solving Tools & Techniques Workshop	Any
30	ENR - 30	Managerial Effectiveness	Theory of Constraints Workshop	Any
31	ENR - 31	Managerial Effectiveness	Six Sigma Applications in Business Workshop	Any
32	ENR - 32	Managerial Effectiveness	Budgeting Workshop	Any
33	ENR - 33	Managerial Effectiveness	i-Lab Design Thinking Projects Workshop	Any
34	ENR - 34	Managerial Effectiveness	Public Relations Workshop	Any
35	ENR - 35	Managerial Effectiveness	Cross Cultural Relationship Marketing Workshop	Any
36	ENR - 36	Managerial Effectiveness	Digital Productivity Tools Workshop	Any
37	ENR - 37	Managerial Effectiveness	Effective Meetings Management Workshop	Any
38	ENR - 38	Managerial Effectiveness	Balanced Score Card - Case Study Development and Presentation	Any
39	ENR - 39	Perspectives on Management	Management Thinkers & Contributions - Seminar	Any
40	ENR - 40	Perspectives on Management	Enduring Management Principles & Thoughts - Seminar	Any
41	ENR - 41	Perspectives on Management	Mysteries in Management - Seminar	Any
42	ENR - 42	Perspectives on Management	Management - The Future Frontiers - Seminar	Any
43	ENR - 43	Perspectives on Management	Leaderships Lessons from Non-business leaders – Seminar	Any
44	ENR - 44	Perspectives on Management	Leadership Lessons from Antiquity - Seminar	Any
45	ENR - 45	Perspectives on Management	Leading in the 21st Century - Case Study Development and Presentation	Any
46	ENR - 46	Perspectives on Management	Strategy in a VUCA world - Case Study Development and Presentation	Any
47	ENR - 47	Economy & Polity	The Economics & Politics of NGOs - Case Study Development and Presentation	Any
48	ENR - 48	Economy & Polity	Politics & Governance - Seminar	Any
49	ENR - 49	Economy & Polity	Climate Change Politics & Policy - Seminar	Any
50	ENR - 50	Economy & Polity	Energy Economics - Seminar	Any
51	ENR - 51	Economy & Polity	Civil Society, New Social Movements & Public Policy - Case Study Development and Presentation	Any
52	ENR - 52	Economy & Polity	Corporations, NGOs & Civil societies - Seminar	Any
53	ENR - 53	Economy & Polity	Environment & Development - Seminar	Any
54	ENR - 54	Economy & Polity	Globalization & Localization - Seminar	Any
55	ENR - 55	Economy & Polity	Strategic Transformation and Change in the Indian Economy - Case Study Development and Presentation	Any
56	ENR - 56	Communication	Verbal Communication & Presentation Skills Workshop	Any

57	ENR - 57	Communication	Visual Communication Workshop	Any
58	ENR - 58	Communication	Communication Through Theatre Techniques Workshop	Any
59	ENR - 59	Communication	Technical Writing Workshop	Any
60	ENR - 60	Communication	Walk the Talk - Leader / Entrepreneur Interviews Lab	Any
61	ENR - 61	Communication	Creative Writing Workshop	Any
62	ENR - 62	Communication	Blog Writing Workshop	Any
63	ENR - 63	Behavioural & Interpersonal Skills	Transactional Analysis Lab	Any
64	ENR - 64	Behavioural & Interpersonal Skills	Emotional Intelligence & Managerial Effectiveness Lab	Any
65	ENR - 65	Behavioural & Interpersonal Skills	Influence & Persuasion Lab	Any
66	ENR - 66	Behavioural & Interpersonal Skills	Negotiation Skills Lab	Any
67	ENR - 67	Behavioural & Interpersonal Skills	Team Selling Lab	Any
68	ENR - 68	Technology	Technology Clinic	Any
69	ENR - 69	Technology	Digital Innovation and Transformation – Seminar	Any
70	ENR - 70	Technology	Social Impact of Technology - Case Study Development and Presentation	Any
71	ENR - 71	Technology	Technology Commercialization – Seminar	Any
72	ENR - 72	Technology	Intellectual Property Rights – Seminar	Any
73	ENR - 73	Technology	Strategy and Technology – Seminar	Any
74	ENR - 74	Technology	Internet of Things – Seminar	Any
75	ENR - 75	Technology	Cyber Security – Seminar	Any
76	ENR - 76	Technology	Gamification Workshop	Any
77	ENR - 77	Understanding India	Skill-India - Case Study Development and Presentation	Any
78	ENR - 78	Understanding India	Smart-Cities - Case Study Development and Presentation	Any
79	ENR - 79	Understanding India	Swachh Bharat - Case Study Development and Presentation	Any
80	ENR - 80	Understanding India	Make-in-India - Case Study Development and Presentation	Any
81	ENR - 81	Understanding India	Constitution of India – Seminar	Any
82	ENR - 82	Understanding India	Indian Social Structure - Case Study Development and Presentation	Any
83	ENR - 83	Understanding India	Methodological Foundations of Indian Scientific Tradition – Seminar	Any
84	ENR - 84	Understanding India	Some Scientific Concepts from Sanskrit Texts – Seminar	Any
85	ENR - 85	Understanding India	Film Appreciation - Case Study Development and Presentation	Any
86	ENR - 86	Understanding India	Culture, Diversity & Society – Seminar	Any
87	ENR - 87	Understanding India	Contemporary Debates in Business & Society – Seminar	Any
88	ENR - 88	Understanding India	Consumerism and Sociology of the Family – Seminar	Any
89	ENR - 89	Understanding India	Culture and Media – Seminar	Any
90	ENR - 90	Understanding India	Business History – Seminar	Any
91	ENR - 91	Unconventional Sectors	Educational Institutions Management - Case Study Development and Presentation	Any
92	ENR - 92	Unconventional Sectors	The Business of Bollywood - Case Study Development and Presentation	Any

93	ENR - 93	Unconventional Sectors	Contemporary Sports: A Business Perspective - Case Study Development and Presentation	Any
94	ENR - 94	Unconventional Sectors	Managing Public Festivals , Exhibitions & Fairs - Case Study Development and Presentation	Any
95	ENR - 95	Unconventional Sectors	Agro Tourism- Case Study Development and Presentation	Any
96	ENR - 96	Ethics & Social Responsibility	Rural Immersion Project	Any
97	ENR - 97	Ethics & Social Responsibility	Managing for bottom of the Pyramid Business – Seminar	Any
98	ENR - 98	Ethics & Social Responsibility	Digital Technologies For Social Inclusion - Case Study Development and Presentation	Any
99	ENR - 99	Ethics & Social Responsibility	Social Impact Analysis for Local Community Projects - Case Study Development and Presentation	Any
100	ENR - 100	Ethics & Social Responsibility	Social & Ethical Aspects of Healthcare – Seminar	Any
101	ENR - 101	Ethics & Social Responsibility	Spirituality for Managers – Seminar	Any
102	ENR – 102	Personal Interest Course	Yoga	Any
103	ENR – 103	Personal Interest Course	Vedic Maths	Any
104	ENR – 104	Personal Interest Course	Graphology	Any
105	ENR – 105	Personal Interest Course	Caligraphy	Any
106	ENR – 106	Personal Interest Course	Music	Any
107	ENR – 107	Personal Interest Course	Dance	Any
108	ENR – 108	Personal Interest Course	Adventure Sports	Any
109	ENR – 109	Personal Interest Course	Hackathon	Any
110	ENR - 110	Personal Interest Course	Local Community Development Project	Any
111	ENR - 111	Personal Interest Course	Videography	Any
112	ENR - 112	Personal Interest Course	Fine Arts	Any

[F] ALTERNATIVE STUDY CREDIT COURSES (ASCC) (ELECTIVES) – 2 Credit Each			
50 Marks FORMATIVE ASSESSMENT, 00 Marks SUMMATIVE EVALUATION			
Between ZERO to THREE courses to be selected from the following list in Semester I# and / or Between ZERO to THREE courses to be selected from the following list in Semester II# and / or Between ZERO to THREE courses to be selected from the following list in Semester III# and / or Between ZERO to TWO courses to be selected from the following list in Semester IV#			
Course No.	Course Code	Course	Semester
1	ASCC - 001	MOOCs	Any
2	ASCC - 002	Professional Certification Programs	Any
3	ASCC - 003	CSR Project	Any
4	ASCC - 004	Innovation Projects	Any
5	ASCC - 005	Industry or Academic Internships	Any
6	ASCC - 006	Field/Live Projects	Any

Same type of course can be selected multiple number of times.

MINOR ONLY SPECIALIZATIONS

Specialization – Rural & Agri -Business Management (RABM)			
Course No.	Course Code	Course	Semester
2 CORE courses as per the following list – in Semester III or Semester IV			
1	SC – RABM – 01	Agriculture and Indian Economy	III
2	SC – RABM – 02	ICT for Agriculture Management	IV
Any 2 ELECTIVE courses to be selected from the following list – either in Semester III or Semester IV			
1	SE – RABM – 03	Rural Credit and Finance	III
2	SE – RABM – 04	Rural Marketing - I	III
3	SE – RABM – 05	Agri – Entrepreneurship	IV
4	SE – RABM – 06	Rural Marketing II	IV
Specialization – Pharma & Health Care Management (PHCM)			
Course No.	Course Code	Course	Semester
2 CORE courses as per the following list – in Semester III or Semester IV			
1	SC – PHCM- 01	Fundamentals of Pharma and Healthcare Management	III
2	SC – PHCM- 02	Pharma and healthcare regulatory environment in India	IV
Any 2 ELECTIVE courses to be selected from the following list – either in Semester III or Semester IV			
1	SE – PHCM- 03	Strategic Planning & Healthcare Management	III
2	SE – PHCM- 04	Information Technology in Pharma and Healthcare	III
3	SE – PHCM- 05	Pharmaceutical Import and Export	IV
4	SE – PHCM- 06	Entrepreneurship in Pharma and Healthcare	IV
Specialization – Tourism & Hospitality Management (THM)			
Course No.	Course Code	Course	Semester
2 CORE courses as per the following list – in Semester III & Semester IV			
1	SC – THM – 01	Fundamentals of Hospitality Management	III
2	SC – THM - 02	Tourism & Travel Management	IV
Any 2 ELECTIVE courses to be selected from the following list – either in Semester III or Semester IV			
1	SE – THM - 03	Event Management	III
2	SE – THM - 04	Tourism Planning & Development	III
3	SE – THM - 05	Strategic Hospitality Management	IV
4	SE – THM - 06	Revenue Management	IV
Specialization – International Business Management (IB)			
Course No.	Course Code	Course	Semester
2 CORE courses as per the following list – in Semester III & Semester IV			
1	SC – IB – 01	Import Export Documentation and Procedures	III
2	SC – IB - 02	Global Trade and Logistics Management	IV
Any 2 ELECTIVE courses to be selected from the following list – either in Semester III or Semester IV			
1	SE – IB - 03	Cross Cultural Management and Global Leadership	III
2	SE – IB - 04	International Business and Employment Laws	III
3	SE – IB- 05	Global Competitiveness, Value Chains and Alliances	IV
4	SE – IB- 06	International Banking and Foreign Exchange Management	IV

ANNEXURE II – COURSE WISE DETAILED SYLLABUS

Generic Core Courses (Compulsory) – Semester I & II		
Semester I		101 – Managerial Accounting
3 Credits	LTP: 2:1:1	Compulsory Generic Core Course

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO101.1	REMEMBERING	DESCRIBE the basic concepts related to Accounting, Financial Statements, Cost Accounting, Marginal Costing, Budgetary Control and Standard Costing
CO101.2	UNDERSTANDING	EXPLAIN in detail, all the theoretical concepts taught through the syllabus.
CO101.3	APPLYING	PERFORM all the necessary calculations through the relevant numerical problems.
CO101.4	ANALYSING	ANALYSE the situation and decide the key financial as well as non-financial elements involved in the situation.
CO101.5	EVALUATING	EVALUATE the financial impact of the decision.
CO101.6	CREATING	CREATE the Financial Statement of Sole Proprietor, Cost Sheet and Budgets

- 1. Basic Concepts:** Forms of Business Organization. Meaning and Importance of Accounting in Business Organization, Basic concepts and terms used in accounting, Capital & Revenue Expenditure, Capital & Revenue Receipts, Users of Accounting Information. Accounting Concepts and Conventions, Fundamental Accounting Equation, Journal, Ledger and Trial Balance. **(4+2)**
- 2. Financial Statements:** Meaning of Financial Statements, Importance and Objectives of Financial Statements. Preparation of Final Accounts of sole proprietary firm. **(7 + 2)**
- 3. Cost Accounting:** Basic Concepts of Cost Accounting, Objectives, Importance and Advantages of Cost Accounting, Cost Centre, Cost Unit, Elements of Cost, Classification and Analysis of Costs, Relevant and Irrelevant Costs, Differential Costs, Sunk Cost, Opportunity Cost, Preparation of Cost Sheet. **(8 + 2)**
- 4. Short Term Business Decision Techniques – Marginal Costing:** Meaning, Principles, Advantages and Limitations, Contribution, P/V Ratio, Break-Even Point (BEP), Cost Volume Profit (CVP) Analysis, Short Term Business Decisions–Product Mix Decisions, Make or Buy (Outsourcing) Decisions, Accept or Reject Special Order Decisions, Shutting Down Decisions. **(8 + 2)**
- 5. Exercising Control – Budgetary Control & Standard Costing: Budgetary Control:** Meaning of Budget and Budgeting, Importance, Advantages and Disadvantages, Cash Budget and Flexible Budget, Functional Budgets (overview). Standard Costing: Meaning, Importance, Advantages and Disadvantages, Cost Variance Analysis. Material Variances– Material Cost Variance, Material Rate Variance, Material Usage Variance, Material Mix Variance and Material Yield Variance. Labour Variances –Labour Cost Variance, Labour Rate Variance, Labour Efficiency Variance, Labour Mix Variance, Labour Idle Time Variance and Labour Yield Variance. **(8 + 2)**

Note: Numerical Problems will be asked on the following –

- Final Accounts of Sole Proprietary Firm
- Preparation of Cost Sheet
- Marginal Costing and Short-Term Business Decisions
- Raw Material Purchase & Procurement Budget, Cash Budget, Flexible Budget
- Material Variances and Labour Variances

Suggested Text Books:

- Management Accounting, Khan and Jain, Tata McGraw Hill
- Fundamentals of Management Accounting, H. V.Jhamb
- Managerial Accounting, Dr. Mahesh Abale and Dr. Shriprakash Soni
- Management Accounting, Dr. Mahesh Kulkarni

Suggested Reference Books:

- Financial Cost and Management Accounting, P.Periasamy
- Financial Accounting for Management, Shankarnarayanan Ramanath, CENGAGE Learning
- Accounting For Management, S. N. Maheshwari
- Management Accounting, MadhuVij
- Fundamentals of Management Accounting, H. V.Jhamb
- Cost and Management Accounting, M. N. Arora
- Financial Accounting for Managers, Sanjay Dhmiya, Pearson Publications
- Management Accounting, Mr. Anthony Atkinson, Robert Kaplan, Pearson

9. Accounting For Management, Jawarhar Lal
10. Accounting, Shukla Grewal
11. Management Accounting, Ravi Kishore
12. Accounting for Managers, Dearden and Bhattacharya

Semester I		102 - Organizational Behaviour
3 Credits	LTP: 2:1:1	Compulsory Generic Core Course

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO102.1	REMEMBERING	Describe complexities of individual and group behavior in the organizations.
CO102.2	UNDERSTANDING	Explain the implications of organizational behavior from the perspectives of employees, managers, leaders and the organization.
CO102.3	APPLYING	APPLY Theories, Models, Principles and Frameworks of organizational behavior in specific organizational settings
CO102.4	ANALYSING	ANALYZE human behavioural problems like conflict, low motivational levels, politics, attitudinal issues etc. and develop solutions to these problems.
CO102.5	EVALUATING	FORMULATE approaches to reorient individual, team, managerial and leadership behavior in order to achieve organizational goals.
CO102.6	CREATING	DEVELOP strategies for challenges faced during shaping organizational behavior, organizational culture and organizational change.

- 1. Fundamentals of OB:** Evolution of management thought , five functions of management, Definition, scope and importance of OB, Relationship between OB and the individual, Evolution of OB, Models of OB (Autocratic, Custodial, Supportive, Collegial & SOBC), Limitations of OB. **Values, Attitudes and Emotions:** Introduction, Values, Attitudes, Definition and Concept of Emotions, Emotional Intelligence - Fundamentals of Emotional Intelligence, The Emotional Competence Framework, Benefits of Emotional Intelligence , difference between EQ and IQ. **Personality & Attitude:** Definition Personality, importance of personality in Performance, The Myers-Briggs Type Indicator and The Big Five personality model, Johari Window , Transaction Analysis , Definition Attitude Importance of attitude in an organization, Right Attitude, Components of attitude, Relationship between behavior and attitude. Relevant case studies for Attitude and personality **(7+2)**
- 2. Perception:** Meaning and concept of perception, Factors influencing perception, Selective perception, Attribution theory, Perceptual process, Social perception (stereotyping and halo effect). **Motivation:** Definition & Concept of Motive & Motivation, The Content Theories of Motivation (Maslow's Need Hierarchy & Herzberg's Two Factor model Theory), The Process Theories (Vroom's expectancy Theory & Porter Lawler model), Contemporary Theories- Equity Theory of Work Motivation. Relevant case studies on Perception and Motivation **(8+2)**
- 3. Group and Team Dynamics :** The Meaning of Group & Group behavior & Group Dynamics, Types of Groups, The Five -Stage Model of Group Development Team Effectiveness & Team Building. **Leadership:** Introduction, Managers V/s Leaders. Overview of Leadership- Traits and Types, Theories of Leadership.- Trait and Behavioral Theories. Relevant case studies on Group dynamics and Leadership **(8+2)**
- 4. Conflict Management –** Definition and Meaning, Sources of Conflict, Types of Conflict, Conflict Management Approaches. **Organizational Culture:** Meaning and Nature of Organization Culture - Origin of Organization Culture, Functions of Organization Culture, Types of Culture, Creating and Maintaining Organization Culture, Managing Cultural Diversity. Relevant case studies on Conflict management and organization culture. **(7+2)**
- 5. Stress at workplace:** Work Stressors – Prevention and Management of stress – Balancing work and Life, workplace spirituality. **Organizational Change:** Meaning, definition & Nature of Organizational Change, Types of Organizational change, Forces that acts as stimulants to change. Kurt Lewin's- Three step model, How to overcome the Resistance to Change, Methods of Implementing Organizational Change, Developing a Learning Organization. Relevant case studies on stress management and organizational change **(5+2)**

Note: Evolution of Management thought to OB and functions of management to be covered in brief as a background interface to the subject only

Suggested Text Books:

1. Organizational Behaviour, Robins
2. Organizational Behaviour, Nelson & Quick
3. Organizational Behaviour, Fred Luthans
4. Organizational Behaviour, Stephen Robins, Timothy Judge, Neharika Vohra
5. Organizational Behaviour, M N Mishra

6. Organizational Behaviour, K Ashwathappa

Suggested Reference Books

1. Understanding OB, Uday Pareek
2. Change & Knowledge Management, Janakiram, Ravindra and Shubha Murlidhar
3. Human Resource Management, Nkomo, CENGAGE Learning

Semester I		103 – Economic Analysis for Business Decisions
3 Credits	LTP: 2:1:1	Compulsory Generic Core Course

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO103.1	REMEMBERING	DEFINE the key terms.
CO103.2	UNDERSTANDING	EXPLAIN the key concepts in economics, from a managerial perspective.
CO103.3	APPLYING	IDENTIFY the various issues in an economics context and HIGHLIGHT their significance from the perspective of business decision making.
CO103.4	ANALYSING	EXAMINE the inter-relationships between various facets of micro-economics from the perspective of a consumer, firm, industry, market, competition and business cycles.
CO103.5	EVALUATING	EVALUATE critical thinking based on principles of micro-economics for informed business decision making.
CO103.6	CREATING	ELABORATE how other firms in an industry and consumers will respond to economic decisions made by a business, and how to incorporate these responses into their own decisions.

1. **Managerial Economics:** Concept of Economy, Economics, Microeconomics, Macroeconomics. Nature and Scope of Managerial Economics, Managerial Economics and decision-making. Concept of Firm, Market, Objectives of Firm: Profit Maximization Model, Economist Theory of the Firm. **(6+1)**
2. **Utility & Demand Analysis:** Utility – Meaning, Utility analysis, Measurement of utility, Law of diminishing marginal utility, Indifference curve, Consumer’s equilibrium - Budget line and Consumer surplus. Demand - Concept of Demand, Types of Demand, Determinants of Demand, Law of Demand, Elasticity of Demand, Exceptions to Law of Demand. Uses of the concept of elasticity. Forecasting: Introduction, Meaning and Forecasting, Level of Demand Forecasting, Criteria for Good Demand Forecasting, Methods of Demand Forecasting, Survey Methods, Statistical Methods, Qualitative Methods, Demand Forecasting for a New Products. (Demand Forecasting methods - Conceptual treatment only numerals not expected) **(8+1)**
3. **Supply & Market Equilibrium:** Introduction, Meaning of Supply and Law of Supply, Exceptions to the Law of Supply, Changes or Shifts in Supply. Elasticity of supply, Factors Determining Elasticity of Supply, Practical Importance, Market Equilibrium and Changes in Market Equilibrium. Production Analysis: Introduction, Meaning of Production and Production Function, Cost of Production. Cost Analysis: Private costs and Social Costs, Accounting Costs and Economic costs, Short run and Long Run costs, Economies of scale, Cost-Output Relationship - Cost Function, Cost-Output Relationships in the Short Run, and Cost-Output Relationships in the Long Run. **(8+1)**
4. **Revenue Analysis and Pricing Policies:** Introduction, Revenue: Meaning and Types, Relationship between Revenues and Price Elasticity of Demand, Pricing Policies, Objectives of Pricing Policies, Cost plus pricing. Marginal cost pricing. Cyclical pricing. Penetration Pricing. Price Leadership, Price Skimming. Transfer pricing. Price Determination under Perfect Competition- Introduction, Market and Market Structure, Perfect Competition, Price-Output Determination under Perfect Competition, Short-run Industry Equilibrium under Perfect Competition, Short-run Firm Equilibrium under Perfect Competition, Long-run Industry Equilibrium under Perfect Competition, Long-run Firm Equilibrium under Perfect Competition. Pricing Under Imperfect Competition- Introduction, Monopoly, Price Discrimination under Monopoly, Bilateral Monopoly, Monopolistic Competition, Oligopoly, Collusive Oligopoly and Price Leadership, Pricing Power, Duopoly, Industry Analysis, Need for Government Intervention in Markets, Preventions and Control of Monopolies. **(11+1)**
5. **Consumption Function and Investment Function:** Introduction, Consumption Function, Investment Function, Marginal efficiency of capital and business expectations, Multiplier, Accelerator. Business Cycle: Introduction, Meaning and Features, Phases of Business Cycles, Measures to Control Business Cycles, Business Cycles and Business Decisions. **(7+1)**

Suggested Text Books:

1. Managerial Economics, Peterson, Lewis, Sudhir Jain, Pearson, Prentice Hall
2. Managerial Economics, D. Salvatore, McGraw Hill, New Delhi.
3. Managerial Economics, Pearson and Lewis, Prentice Hall, New Delhi
4. Managerial Economics, G.S. Gupta, T M H, New Delhi.

5. Managerial Economics, Mote, Paul and Gupta, T M H, New Delhi.

Suggested Reference Books:

1. Managerial Economics, Homas and Maurice, Tata McGraw Hill
2. Managerial Economics - Analysis, Problems and Cases, P.L. Mehta, Sultan Chand Sons, New Delhi.
3. Managerial Economics, Varshney and Maheshwari, Sultan Chand and Sons, New Delhi.
4. Managerial Economics, D.M.Mithani
5. Managerial Economics, Joel Dean, Prentice Hall, USA.
6. Managerial Economics by H L Ahuja, S Chand & Co. New Delhi.

Semester I		104 - Business Research Methods
3 Credits	LTP: 2:1:1	Compulsory Generic Core Course

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO104.1	REMEMBERING	DEFINE various concepts & terms associated with scientific business research.
CO104.2	UNDERSTANDING	EXPLAIN the terms and concepts used in all aspects of scientific business research.
CO104.3	APPLYING	MAKE USE OF scientific principles of research to SOLVE contemporary business research problems.
CO104.4	ANALYSING	EXAMINE the various facets of a research problem and ILLUSTRATE the relevant aspects of the research process from a data driven decision perspective.
CO104.5	EVALUATING	JUDGE the suitability of alternative research designs, sampling designs, data collection instruments and data analysis options in the context of a given real-life business research problem from a data driven decision perspective.
CO104.6	CREATING	FORMULATE alternative research designs, sampling designs, data collection instruments, testable hypotheses, data analysis strategies and research reports to address real-life business research problems.

1. Foundations of Research: Definition of Research, Need of business research, Characteristics of scientific research method, Typical Research applications in business and management. **Questions in Research:** Formulation of Research Problem – Management Question – Research Question – Investigation Question. **The process of business research:** Literature review - Concepts and theories - Research questions - Sampling - Data collection - Data analysis - Writing up - The iterative nature of business research process, Elements of a Research Proposal. **Practical considerations:** Values – researcher & organization. Ethical principles - Harm to participants, Lack of informed consent, Invasion of privacy, Deception, Reciprocity and trust, Affiliation and conflicts of interest. Legal considerations - Data management, Copyright. **(6+1)**

2. Research Design: Concept, Features of a robust research design. Exploratory, Descriptive, Quasi Experimental, Experimental research designs, Concept of Cause and Effect, Difference between Correlation and causation. Types of Variables – Independent, Dependent, concomitant, mediating, moderating, extraneous variables, Basic knowledge of Treatment & Control group, Case study design. Cross-sectional and Longitudinal designs, Qualitative and Quantitative research approaches, Pros and Cons of various designs, choice of a research design. **Hypothesis:** Definition, research Hypothesis, Statistical hypothesis, Null hypothesis, Alternative Hypothesis, Directional Hypothesis, Non-directional hypothesis. Qualities of a good Hypothesis, Framing Null Hypothesis & Alternative Hypothesis. Concept of Hypothesis Testing - Logic & Importance. **(7+1)**

3. Data & Measurement: Meaning of data, Need for data. **Secondary Data:** Definition, Sources, Characteristics, Advantages and disadvantages over primary data, Quality of secondary data - Sufficiency, adequacy, reliability and consistency. **Primary Data:** Definition, Advantages and disadvantages over secondary data. **Measurement:** Concept of measurement, What is measured? Problems in measurement in management research - Validity and Reliability, Levels of measurement - Nominal, Ordinal, Interval, Ratio. **Attitude Scaling Techniques:** Concept of Scale – Rating Scales viz. Likert Scales, Semantic Differential Scales, Constant Sum Scales, Graphic Rating Scales – Ranking Scales – Paired Comparison & Forced Ranking - Concept and Application. **Questionnaire:** Questionnaire Construction - Personal Interviews, Telephonic survey Interviewing, Online questionnaire tools. **(8+1)**

4. Sampling: Basic Concepts: Defining the Universe, Concepts of Statistical Population, Sample, Characteristics of a good sample. Sampling Frame, determining the sample frame, Sampling errors, Non Sampling errors, Methods to reduce the errors, Sample Size constraints, Non Response. **Probability Sample:** Simple Random Sample, Systematic Sample, Stratified Random Sample, Area Sampling & Cluster Sampling. **Non Probability Sample:** Judgment Sampling, Convenience Sampling, Purposive Sampling, Quota Sampling & Snowballing Sampling methods. **Determining size of**

the sample: Practical considerations in sampling and sample size, (sample size determination formulae and numericals not expected) **(9+1)**

5. Data Analysis & Report Writing: Data Analysis: Cleaning of Data, Editing, Coding, Tabular representation of data, frequency tables, Univariate analysis - Interpretation of Mean, Median Mode; Standard deviation, Coefficient of Variation. **Graphical Representation of Data:** Appropriate Usage of Bar charts, Pie charts, Line charts, Histograms. **Bivariate Analysis:** Cross tabulations, Bivariate Correlation Analysis - meaning & types of correlation, Karl Person's coefficient of correlation and spearman's rank correlation. Chi-square test including testing hypothesis of association, association of attributes. **Linear Regression Analysis:** Meaning of regression, Purpose and use, Linear regression; Interpretation of regression co-efficient, Applications in business scenarios. **Test of Significance:** Small sample tests: t (Mean, proportion) and F tests, Z test. Non-parametric tests: Binomial test of proportion, Randomness test. Analysis of Variance: One way and two-way Classifications. **Research Reports:** Structure of Research report, Report writing and Presentation. **(10+1)**

Note:

1. It is desirable to use MS Excel / SPSS / Systat for delivery of unit 5.
2. For unit 5, Formulae and calculations are not expected. Interpretation of the given data/test outcomes is expected for appropriate managerial decisions / inferences.

Suggested Text Books:

1. Business Research Methods, Donald Cooper & Pamela Schindler, TMGH.
2. Business Research Methods, Alan Bryman & Emma Bell, Oxford University Press
3. Research Methods for Social Work, Allen, Earl R. Babbie, Cengage
4. Research Methods in Business Studies: A Practical Guide, Pervez Ghauri, Dr Kjell Gronhaug, FT Prentice Hall

Suggested Reference Books:

1. Business Research Methods, William G. Zikmund, Barry J. Babin, Jon C. Carr, Mitch Griffin, Cengage Learning
2. Approaches to social research, Royce Singleton, Bruce C. Straits, Margaret Miller Straits, Oxford University Press
3. Research Methods: The Basics, Nicholas S. R. Walliman, Nicholas Walliman, Routledge,
4. Research Methodology In Management, Dr.V.P.Michael

Semester I		105 – Basics of Marketing
3 Credits	LTP: 2:1:1	Compulsory Generic Core Course

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO105.1	REMEMBERING	REPRODUCE the key marketing concepts, components and principles of marketing environment, segmenting, targeting, positioning, consumer behaviour, marketing mix, and product life cycle.
CO105.2	UNDERSTANDING	INTERPRET the basic concepts, principles and frameworks of marketing in the context of diverse business situations for explaining the relevant issues with regard to marketing environment, segmenting, targeting, positioning, consumer behaviour, marketing mix, and product life cycle.
CO105.3	APPLYING	APPLY the contemporary marketing theories, frameworks and tools to inform problem solving with respect to marketing environment, segmenting, targeting, positioning, consumer behaviour, marketing mix, and product life cycle.
CO105.4	ANALYSING	EXAMINE the critical marketing issues for drawing inferences about the underlying causes and relationships concerning marketing environment, segmenting, targeting, positioning, consumer behaviour, marketing mix, and product life cycle.
CO105.5	EVALUATING	EVALUATE the alternative courses of actions to make judgments with regard to the solution for problems involving marketing environment, segmenting, targeting, positioning, consumer behaviour, marketing mix, and product life cycle.
CO105.6	CREATING	GENERATE alternative approaches to the emerging business challenges in the context of marketing environment, segmenting, targeting, positioning, consumer behaviour, marketing mix, and product life cycle.

1. Introduction to Marketing: Definition & Functions of Marketing- Scope of Marketing, Evolution of Marketing. Core Concepts of Marketing – Need, Want, Demand, Customer Value, Exchange, Customer Satisfaction, Customer Delight, Customer loyalty. Concepts of Marketers and Prospects, Key customer Markets, Marketplaces, Marketspaces, Meta markets. Digital Markets, Brick & Click Model. Impact of Globalization, Technology and Social Responsibility on Marketing. New Consumer Capabilities, New Company Capabilities. Functions of Marketing Manager. Linkage of Marketing Function with All Functions in the Organization. Company Orientation Toward the Marketplace - Production, Product, Selling, Marketing, Holistic Marketing Orientation. Selling versus Marketing. Concept of Marketing Myopia. Marketing Process, Understanding Marketing as Creating, Communicating, and Delivering Value. **(7+2)**

2. Marketing Environment: Concept of Environment, Macro Environment & Micro Environment – Components and Characteristics, Needs & Trends, Major Forces Impacting the Macro Environment & Micro Environment, Need for Analyzing the Marketing Environment. Analyzing the Demographic, Economic, Sociocultural, Natural, Technological, and Political-Legal Environment. **(7+2)**

3. Segmentation, Market Targeting & Positioning: Segmentation: Concept, Need & Benefits. Bases for Segmenting Consumer Markets - Geographic, Demographic, Psychographic, Behavioural. Bases for Segmentation for Business Markets. Levels of Segmentation, Criteria for Effective Segmentation. Market Potential & Market Share. Market Targeting - Concept of Target Markets Market Targeting and Criteria for Selection, Evaluating and Selecting the Market Segments – Full Market Coverage, Multiple Segment Specialization, Single-Segment Concentration, Individual Marketing, Long Tail Marketing. Positioning - Concept of Differentiation & Positioning, Value Proposition & Unique Selling Proposition. **(7+2)**

4. Consumer Behavior: Meaning & Importance of Consumer Behavior, Comparison between Organizational Buying Behavior and Consumer Buying Behavior, Buying Roles, Five-Stage Model of Buying Decision Process – Problem Recognition, Information Search, Evaluation of Alternatives, Purchase Decision, Post Purchase Behavior. Moment of Truth, Zero Moment of Truth, ZMOT. Moderating Effects on Consumer Decision Making. **(7+2)**

5. Marketing Mix: Origin & Concept of Marketing Mix, 7P's - Product, Price, Place, Promotion, People, Process, Physical Evidence. Product Life Cycle: Concept & Characteristics of Product Life Cycle (PLC), Relevance of PLC, Types of PLC and Strategies Across Stages of the PLC. **(7+2)**

Note: Real world examples / cases are expected to be analyzed in the class as well as included in the examination.

Suggested Text Books:

1. Marketing Management, Philip Kotler, Kevin Lane Keller, Abraham Koshy, Mithileshwar Jha, Pearson, 14th Edition
2. Marketing Management, Rajan Saxena, TMGH
3. Marketing, Lamb, Hair, Sharma, McDaniel, Cengage Learning

Suggested Reference Books:

1. Principles of Marketing, Philip Kotler, Gary Armstrong, Prafulla Agnihotri, Ehasan Haque, Pearson, 13th Edition
2. Marketing Management- Text and Cases, Tapan K Panda, Excel Books
3. Marketing Management, Ramaswamy & Namakumari, Macmillan.
4. Marketing Whitebook

Semester I		106 – Digital Business
3 Credits	LTP: 2:1:1	Compulsory Generic Core Course

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO106.1	REMEMBERING	DESCRIBE the conceptual framework of e commerce, mobile commerce and social commerce.
CO106.2	UNDERSTANDING	SUMMARIZE the impact of information, mobile, social, digital, IOT and related technologies on society, markets & commerce.
CO106.3	APPLYING	ILLUSTRATE value creation & competitive advantage in a digital Business environment.
CO106.4	ANALYSING	EXAMINE the changing role of intermediaries, changing nature of supply chain and payment systems in the online and offline world.
CO106.5	EVALUATING	ELABORATE upon the various types of digital business models and OUTLINE their benefits and limitations.
CO106.6	CREATING	DISCUSS the various applications of Digital Business in the present day world.

1. **Electronic Commerce:** The Digital Revolution and Society, The Digital and Social Worlds - The Digital Economy, The Digital Enterprise, Virtual Communities, Online Communities, Defining Electronic Commerce, Emerging

E-Commerce Platforms. E-Business, Electronic Markets and Networks; The Content and Framework of E-Commerce, Classification of E-Commerce by the Nature of the Transactions and the Relationships Among Participants, E-Commerce Business Models, Integrating the Marketplace with the Marketplace, Web 2.0. Drivers, Benefits and Limitations of E-Commerce, Impact of E-Commerce on business, government, customers, citizens and society. **(7+2)**

2. **Mobile Commerce, Social Commerce and IoT:** Mobile Commerce, Attributes Applications and Benefits of M-Commerce, Mobile Marketing - Shopping and Advertising. **Social Commerce:** Social Commerce, Social Business (Enterprise), Social Business Networks and Social Enterprise, Social Media – Platforms and its comparison, marketing/Enterprise 2.0, Improved Business Models. Entrepreneur Networks, Enterprise Social Networks, The Benefits and Limitations of Social Commerce, Benefits to Customers, Retailers, Employees, players in the ecosystem. Social Collaboration (Collaboration 2.0) - Essentials of Social Collaboration, Consumer-to-Consumer Electronic Commerce (C2C), Person-to-Person models. **Internet of Things:** Concept of IoT, Smart Homes and Appliances, Smart Cities, Smart Cars, Wearable Computing and Smart Gadgets. **(7+2)**

3. **Digital Business Ecosystem:** Electronic Commerce Mechanisms, Online Purchasing Process, E-Marketplaces - Types, Components and Participants, Disintermediation and Reintermediation; Customer Shopping Mechanisms - Webstores, Malls, and Portals, Webstores, Electronic Malls , Web (Information) Portals. **Intermediaries:** Roles of Intermediaries in E-Marketplaces, Merchant Solutions: Electronic Catalogs, Search Engines, and Shopping Carts, Electronic Catalogs, E-Commerce Search Activities, Auctions - Traditional Auctions Versus E-Auctions, Dynamic Pricing. **Changing Supply Chains:** Structure of the Supply Chain, EC Order Fulfillment Process, Speeding Up Deliveries, Partnering Efforts and Outsourcing Logistics, Order Fulfillment in Make-to- Order (MTO) and Mass Customization. **Digital Payments:** Smart Cards, Stored-Value Cards, EC Micropayments, Payment Gateways, Mobile Payments, Digital and Virtual Currencies, Security, Ethical, Legal, Privacy, and Technology Issues. **(7+2)**

4. **Digital Business Applications - I: Electronic Retailing:** B2C Electronic Retailing, Characteristics, Advantages, Limitations, E-Tailing Business Models, Classification of Models by Distribution Channel, Referring Directories, Malls with Shared Services. Social Shopping – Concept, Benefits and Drivers, Social Shopping Aids – Recommendations, Reviews, Ratings, and Marketplaces, Real-Time Online Shopping. The Online Versus Off-Line Competition, Click-and-Brick models, Product and Service Customization and Personalization. **Fintech:** E-Banking, Mobile Banking, Pure Virtual Banks, Insurance, and Stock Trading, Other Mobile Finance Applications. **Digital Government:** Government-to-Citizens, Government-to-Business, Government-to-Government, Government-to-Employees Models, Internal Efficiency and Effectiveness, E-Government and Social Networking, M-Government. **E-Learning, E-Training, and E-Books:** Basics of E-Learning, Characteristics, Advantages, Limitations, Distance Learning and Online Universities, Online Corporate Training, Social Networks and E-Learning, E-Learning Management Systems, Electronic Books. **(7+2)**

5. **Digital Business Applications - II: Online Travel and Tourism Services:** Characteristics of Online Travel, Benefits, Limitations, and Competition in Online Travel Services. **E-Employment:** Online Job Market, Social Networks Based Job Markets, Social Recruiting, Virtual Job Fairs and Recruiting Events, Benefits and Limitations of the Electronic Job Market. **E-Health:** Definition, Electronic Medical Record Systems (EMR), Doctors’ System, Patients Services, Medical Devices and Patients Surveillance. **Entertainment, Media & Gaming:** Service Industry Consumer Applications. Digital Products, Internet TV and Internet Radio, Social Television (TV) Mobile Entertainment, Mobile Marketing, Mobile Streaming Music and Video Providers, Entertainment in Cars; Gaming - Mobile Games, Social Games and Gamification, Business of Social Games, Educational Social Games; Mobile Gambling, Mobility and Sports; Social Entertainment. **(7+2)**

Note: The focus of the entire course should be on business issues and not merely on technology.

Suggested Text Books:

1. Introduction to E Commerce & Social Commerce, Turban E , Whiteside J , King D, Outland J Springer
2. E-Business and E-Commerce Management- Strategy, Implementation and Practice, Dave Chaffey, Pearson Education.
3. Electronic Commerce – A Managerial Perspective, Efraim Turban, David King, Dennis Viehland, Jae Lee, Pearson Education.

Semester II		201 – Marketing Management
3 Credits	LTP: 2:1:1	Compulsory Generic Core Course

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO201.1	REMEMBERING	DESCRIBE the key terms associated with the 4 Ps of marketing for a real world marketing offering.
CO201.2	UNDERSTANDING	DEMONSTRATE the relevance of marketing mix concepts and frameworks for a real world marketing offering (commodities, goods, services, e-products/ e-services.)
CO201.3	APPLYING	APPLY marketing Mix decisions for a real world marketing offering (commodities, goods, services, e-products/ e- Services.)

CO201.4	ANALYSING	EXAMINE marketing issues pertaining to Marketing Mix and Marketing Plan in the context of real world marketing offering (commodities, goods, services, e-products/ e-services)
CO201.5	EVALUATING	EXPLAIN the interrelationships between various elements of Marketing mix in the context of real world marketing offering (commodities, goods, services, e-products/ e-services)
CO201.6	CREATING	DESIGN a marketing plan for a real world marketing offering (commodities, goods, services, e-products/ e-services.)

- Product:** Meaning, The Role of Product as a market offering, Goods & Services Continuum Classification of consumer products- convenience, shopping, shopping, unsought goods. Classification of industrial products- materials and parts, capital items, supplies and services. The Product Hierarchy, Product Systems and Mixes, Product Line Analysis, Product Line Length, the Customer Value Hierarchy. New Product Development - Need, Booz Allen & Hamilton Classification Scheme for New Products, New Product Development Process - Idea Generation to commercialization. Branding: Concept, Definition and Commodity vs. Brand, Product Vs Brand, and Concept of Brand equity. (7 + 2)
- Pricing:** Meaning, The Role of Pricing, Importance and Factors influencing pricing decisions. Setting the Price: Setting pricing objectives, Determining demand, Estimating costs, Analyzing competitors' pricing, Selecting pricing method, selecting final price. Adapting the Price: Geographical pricing, Price discounts & allowances, Promotional pricing, Differentiated pricing, concept of transfer pricing, Dynamic pricing (surge pricing, auction pricing), Pricing in online marketing (free, premium, freemium). Price Change: Initiating & responding to price changes. (7 + 2)
- Place:** Meaning, The Role of Marketing Channels, Channel functions & flows, Channel Levels, Channel Design Decisions - Analyzing customers' desired service output levels, establishing objectives & constraints, Identifying & evaluating major channel alternatives. Channel Options - Introduction to Wholesaling, Retailing, Franchising, Direct marketing, Introduction to Omni channel & hybrid channel options. Market Logistics Decisions - Order processing, Warehousing, Inventory, and Logistics. (7 + 2)
- Promotion:** Meaning, The role of marketing communications in marketing effort. Communication Mix Elements, Introduction to Advertising, Sales Promotion, Personal Selling, Public Relations, Direct Marketing. Concept of Integrated Marketing Communications (IMC), Developing Effective Communication - Communication Process, Steps in Developing effective marketing communication - identifying target audience, determining communication objectives, designing a message, Choosing media, Selecting message source, Collecting feedback. Shaping the overall promotion mix: promotional mix strategy, push-pull strategies. (7 + 2)
- Product Level Planning:** Preparation & evaluation of a product level marketing plan, Nature & contents of Marketing Plans - Executive Summary, Situation Analysis, Marketing Strategy, Financials, Control. Marketing Evaluation & Control - Concept, Process & types of control - Annual Plan Control, Profitability Control, Efficiency Control, Strategic Control, Marketing audit. (7 + 2)

Note: Real world examples / cases are expected to be analyzed in the class as well as included in the examination.

Suggested Text Books:

- Marketing Management, Philip Kotler, Kevin Lane Keller, Abraham Koshy, Mithileshwar Jha, Pearson
- Marketing Management, Rajan Saxena, TMGH
- Marketing, Lamb Hair Sharma, Mc Daniel, Cengage Learning

Suggested Reference Books:

- Principles of Marketing, Philip Kotler, Gary Armstrong, Prafulla Agnihotri, Ehasan Haque, Pearson
- Marketing Management- Text and Cases, Tapan K Panda, Excel Books
- Marketing Management, Ramaswamy & Namakumari, Macmillan.
- Marketing Whitebook

Semester II		202 – Financial Management
3 Credits	LTP: 2:1:1	Compulsory Generic Core Course

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO202.1	REMEMBERING	DESCRIBE the basic concepts related to Financial Management, Various techniques of Financial Statement Analysis, Working Capital, Capital Structure, Leverages and Capital Budgeting.
CO202.2	UNDERSTANDING	EXPLAIN in detail all theoretical concepts throughout the syllabus

CO202.3	APPLYING	PERFORM all the required calculations through relevant numerical problems.
CO202.4	ANALYSING	ANALYZE the situation and <ul style="list-style-type: none"> • comment on financial position of the firm • estimate working capital required • decide ideal capital structure • evaluate various project proposals
CO202.5	EVALUATING	EVALUATE impact of business decisions on Financial Statements, Working Capital, Capital Structure and Capital Budgeting of the firm
CO202.6	CREATING	CREATE Common Size Comparative Statements, Comparative Financial Statements using Ratio Analysis (Year-wise, Industry – wise), Comparative Proposals using Capital Budgeting Techniques

- 1. Business Finance:** Introduction to Business Finance, Meaning and Definition of Financial Management, Objectives of Financial Management- (Profit Maximization and Wealth Maximization), Modern Approach to Financial Management- (Investment Decision, Financing Decision, Dividend Policy Decision), Finance and its relation with other disciplines, Functions of Finance Manager **(3+2)**
- 2. Techniques of Financial Statement Analysis:** Introduction, Objectives of financial statement analysis, various techniques of analysis viz Common Size Statements, Comparative Statements, Trend Analysis, Ratio Analysis, Funds Flow Statement & Cash Flow Statement **(10 + 2)**
- 3. Working Capital Management:** Meaning of Working Capital, its components & types, Operating Cycle, Factors affecting working capital, Estimation of working capital requirement. (Total Cost Method & Cash Cost Method) **(8 + 2)**
- 4. Capital Structure:** Meaning and Factors affecting Capital Structure, Different sources of finance. Concept and measurement of Cost of Capital (measurement of Specific Cost and WACC), Trading on Equity, Concept of Leverages and its types. **(6 + 2)**
- 5. Capital Budgeting:** Meaning, Definition of Capital Budgeting, Time value of money. Tools of evaluation of the project based on traditional techniques and modern techniques - ARR, Payback Period, Discounted Payback Period, NPV, PI & IRR **(6+2)**

Note: Numerical Problems will be asked on following topics only—

1. Common Size Statements
2. Comparative Statements
3. Trend Analysis
4. Ratio Analysis (Calculation of ratios plus its interpretation)
5. Estimation of working capital requirement (Total Cost Method & Cash Cost Method)
6. Operating Cycle
7. Measurement of Specific Cost (Cost of Equity, Preference, Retained Earnings and Debt) and WACC
8. Capital Structure
9. Leverages
10. Capital Budgeting (ARR, Payback Period, Discounted Payback Period, NPV, PI & IRR)

Suggested Text Books:

1. Financial Management, Shashi K. Gupta and R.K. Sharma (Kalyani Publication)
2. Basics of Financial Management, V.K. Saxena and C.D.Vashist (Sultan Chand & Sons)
3. Financial Management, A Contemporary Approach, Rajesh Kothari (SAGE)
4. Financial Management, Dr. Mahesh Abale & Dr. Shriprakash Soni (Himalaya Publishing House Pvt. Ltd.)
5. Working Capital Management, Theory and Practice, Dr. P. Periasamy (Himalaya Publishing House)
6. Financial Management, I M Pandey (Vikas Publishing House Pvt. Ltd)
7. Fundamentals of Financial Management, A.P.Rao (Everest Publishing House)
8. Advanced Financial management, N.M. Vechalekar

Suggested Reference Books:

1. Financial Management, Rajiv Srivastava and Anil Misra (OXFORD University Press)
2. Financial Management, Ravi Kishore (Taxmann)
3. Financial management, V.K. Bhalla (S. Chand)
4. Financial Management, Jonathan Berk, Peter DeMarzo and Ashok Thampy (Pearson Publication)

Semester II		203 – Human Resource Management
3 Credits	LTP: 2:1:1	Compulsory Generic Core Course

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO203.1	REMEMBERING	DESCRIBE the role of Human Resource Function in an Organization.
CO203.2	UNDERSTANDING	DISCUSS the emerging trends and practices in HRM.
CO203.3	APPLYING	ILLUSTRATE the different methods of HR Acquisition and retention.
CO203.4	ANALYSING	IDENTIFY the use of different appraisal and training methods in an organization.
CO203.5	EVALUATING	INTERPRET the sample job descriptions and job specifications for contemporary entry level roles in real world organizations.
CO203.6	CREATING	DESIGN the HR manual and compensation policy of the organization.

- Human Resource Management: Concept and Challenges** - Introduction, Objectives, Scope, Features of HRM, Role of HRM, Importance of HRM, Policies and Practices of HRM, Functions of HRM, Challenges of HRM. Introduction to SHRM: Define SHRM, importance and nature. HRM Models: Harvard Model, SHRM "matching model". **(5+2)**
- HR Acquisition & Retention:** Human Resource Planning: Definition, Objective, Need and Importance, HRP Process, Barriers to HRP. Job Analysis Process – Contents of Job Description & Job Specification, Job description Vs job specification, Job design, Factors affecting Job design, Job enrichment Vs job enlargement. Recruitment Introduction & Sources of Recruitment, Difference between recruitment and selection-Recruitment, Selection Process, Induction and Orientation. Career Planning-Process of career planning and development Succession Planning Process, Transfer and Promotion. Retention of Employees: Importance of retention, strategies of retention. **(8+2)**
- Managing Employee Performance and Training:** Performance Appraisal & Performance Management – Definition, Objective, Importance, Appraisal Process and Appraisal Methods. Why to measure performance and its purpose. Performance Appraisal Vs Performance Management, Potential Management. Training and Development - Definition – Scope – Conceptual framework of Training and development of Employees, Role of Training in Organizations, Objectives, The Training and Development Process, Training Need Assessment, Types of training, Difference between training and development, E-Learning. Benefits of training, Evaluation of Training Effectiveness: Kirkpatrick model. **(8+2)**
- Compensation Management:** Concept, Objectives, Importance of Compensation Management, Process, Current Trends in Compensation. Factors in compensation plan. Wage/ Salary differentials, Components of salary. Incentives and Benefits – Financial & Nonfinancial Incentive, Fringe Benefits. Employees Separation - Retirement, Termination, VRS, Golden Handshake, Suspension, Concepts & Methods, Grievance Procedure in Indian Industry. **(8+2)**
- Emerging Trends in HRM:** HRIS- Need, Advantages & Uses of HRIS. HR Accounting- Concepts, Objective, Advantage, Limitation & Method. HR Audit- Concept, Objective, Scope & Process. HR Shared Services- Concept, Objective, Benefits, Issues creating HR Shared Services. **(6+2)**

Suggested Text Books:

- Human Resource Management, Dr. S.S. Khanka, Sultan Chanda, Delhi
- Human Resource Management, Deepak Bhattacharya, Sage Publishing Ltd.
- Human Resource Management, Arun Monppa, Tata McGraw Hill Publishing Company
- Human Resource Management, Mirza & Zaiyaddin
- Human Resource Management, Dr. P.C.Pardeshi, Niramli Publication
- Human Resource Management, R.S.Dwiwedi, Vikas Publishing House.
- Human Resource Management, C.B.Mamoria, Himalaya Publishing House
- Human Resource Management, Gary Dessler Dorling Kindersley Pvt Ltd.
- Human Resource Management: Text and Cases, K Aswathappa, Tata McGraw Hill Publishing Company.
- Performance Appraisal and Management, Himalaya Publishing House.

Suggested Reference Books:

- Human Resource Management in Organizations, Izabela Robinson, Jaico Publishing House.
- Armstrong's Essential Human Resource Management Practice - A guide to people management, Michael Armstrong, Koganpage.
- Applied Psychology in Human Resource Management, Cascio & Aguins, PHI.

Semester II		204 – Operations & Supply Chain Management
3 Credits	LTP: 2:1:1	Compulsory Generic Core Course

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO204.1	REMEMBERING	DEFINE basic terms and concepts related to Production, Operations, Services, Supply Chain and Quality Management.

CO204.2	UNDERSTANDING	EXPLAIN the process characteristics and their linkages with process-product matrix in a real world context.
CO204.3	APPLYING	DESCRIBE the various dimensions of production planning and control and their inter-linkages with forecasting.
CO204.4	ANALYSING	CALCULATE inventory levels and order quantities and MAKE USE OF various inventory classification methods.
CO204.5	EVALUATING	OUTLINE a typical Supply Chain Model for a product / service and ILLUSTRATE the linkages with Customer Issues, Logistic and Business Issues in a real world context.
CO204.6	CREATING	ELABORATE upon different operational issues in manufacturing and services organisations where the decision-making element is emphasized.

1. Introduction to Operations and Supply Chain Management: Definition, Concept, Significance and Functions of Operations and SCM. Evolution from manufacturing to operations management, Physical distribution to Logistics to SCM, Physical Goods and Services Perspectives. **Quality:** Definitions from various Perspectives, Customers view and Manufacturer's view, Concept of Internal Customer, Overview of TQM and LEAN Management, Impact of Global Competition, Technological Change, Ethical and Environmental Issues on Operations and Supply Chain functions. **(7+2)**

2. Operations Processes: Process Characteristics in Operations: Volume Variety and Flow. Types of Processes and Operations Systems - Continuous Flow system and intermittent flow systems. **Process Product Matrix:** Job Production, Batch Production, Assembly line and Continuous Flow, Process and Product Layout. **Service System Design Matrix:** Design of Service Systems, Service Blueprinting. **(6+2)**

3. Production Planning & Control (PPC): Role and Functions of PPC **Demand Forecasting:** Forecasting as a Planning Tool, Forecasting Time Horizon, Sources of Data for forecasting, Accuracy of Forecast, Capacity Planning. **Production Planning:** Aggregate production Planning, Alternatives for Managing Demand and Supply, Master Production Schedule, Capacity Planning - Overview of MRP, CRP, DRP, MRP II. **Production Control:** Scheduling, Loading, Scheduling of Job Shops and Floor Shops, Gantt Charts. **(8+2)**

4. Inventory Planning and Control: Continuous and intermittent demand system, concept of inventory, need for inventory, types of inventory - seasonal, decoupling, and cyclic, pipeline, safety - Implications for Inventory Control Methods. Inventory Costs - Concept and behavior of ordering cost, carrying cost, and shortage cost. **EOQ** – definition, basic EOQ Model, EOQ with discounts. Inventory control - Classification of material - ABC Analysis -VED, HML, FSN, GOLF, SOS. (Numericals expected on Basic EOQ, EOQ with discounts & ABC), Inventory turns ratios, Fixed Order quantity Model - Periodic Review and Re-order Point. **(8+2)**

5. Supply Chain Management: Supply chain concept, Generalized Supply Chain Management Model - Key Issues in SCM – Collaboration, Enterprise Extension, responsiveness, Cash-to-Cash Conversion. **Customer Service:** Supply Chain Management and customer service linkages, Availability service reliability perfect order, customer satisfaction. Enablers of SCM - Facilities, Inventory, Transportation, Information, sourcing, Pricing. **(6+2)**

Suggested Text Books:

1. Operations Management Theory & Practice, B.Mahadevan, Pearson.
2. Operations Now - Supply Chain Profitability & Performance, Byron J. Finch, McGraw Hill.
3. Production and Operations Management, R B Khanna, PHI, New Delhi..
4. Production & Operations Management, S N Chary, McGraw Hill.
5. Supply Chain Management - Strategy, Planning & Operation, Sunil Chopra, Peter Meindl, D. V. Kalra, Pearson Education.

Suggested Reference Books:

1. Supply Chain Logistics Management, Donald Bowersox, David Closs, M Bixby Cooper, Tata McGraw Hill.
2. Operations Management, William J. Stevenson, TMGH.
3. Operations Management, Lee Krajewski, Larry Ritzman, Manoj Malhotra, Pearson Education.
4. Introduction to Materials Management, J.R. Tony Arnold, Stephen Chapman, Ramakrishnan, Pearson.

Generic Courses (Electives) – University Level – Semester I & II

Semester I		107 – Management Fundamentals
2 Credits	LTP: 2:0:0	Generic Elective – University Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO107.1	REMEMBERING	ENUMERATE various managerial competencies and approaches to management.
CO107.2	UNDERSTANDING	EXPLAIN the role and need of Planning, Organizing, Decision Making and Controlling.
CO107.3	APPLYING	MAKE USE OF the principles of goal setting and planning for simple as well as complex tasks and small projects.
CO107.4	ANALYSING	COMPARE and CONTRAST various organizational structures of variety of business and not-for-profit entities in a real world context.
CO107.5	EVALUATING	BUILD a list of the decision making criteria used by practicing managers, leaders and entrepreneurs in routine and non-routine decision making situations and EVALUATE and EXPLAIN the same.
CO107.6	CREATING	FORMULATE and DISCUSS a basic controlling model in a real life business, start-up and not-for-profit organizational context.

1. **Basic Concepts:** Manager, Managing, Workplace, Organization, Management Functions, Mintzberg's Managerial Roles, The Universality of Management, Approaches to Management - Early Management, Classical Approach, Behavioral Approach, Quantitative Approach, Contemporary Approaches. Managerial Competencies: Communication, team work, planning and administrative, strategic and global competencies; Managerial Skills; How Is the Manager's Job Changing?, Importance of Customers to the Manager's Job, Importance of Innovation to the Manager's Job, Importance of Sustainability to the Manager's Job. **(5)**

2. **Planning:** Concept, need, nature, Management By Objectives (MBO) - Process of MBO - Benefits of MBO, Planning and Performance, Goals and Plans, Types of Goals, Types of Plans, Setting Goals and Developing Plans, Approaches to Setting Goals, Developing Plans, Approaches to Planning, Planning Effectively in Dynamic Environments. **(6)**

3. **Organizing:** Organization, Organizing, Organizational Structures, Principles of Work Specialization , Departmentalization, Chain of Command, Span of Control, Centralization and Decentralization, Formalization. Mechanistic and Organic Structures, Factors Affecting Structural Choice - Strategy, Size, Technology, Environmental Uncertainty. Traditional Organizational Designs - Simple Structure, Functional Structure, Divisional Structure, Matrix Structure, Team Structures, Project Structure, Adaptive Organizations – Boundary less Organization, Virtual Organizations, Learning Organization, Flexi Work, Tele-working, Global Organizations. **(7)**

4. **Decision Making:** The Decision-Making Process - Identifying a Problem - Identifying Decision Criteria - Allocating Weights to the Criteria - Developing Alternatives - Analyzing Alternatives - Selecting an Alternative - Implementing the Alternative - Evaluating Decision Effectiveness. Making Decisions: Rationality, Bounded Rationality, The Role of Intuition, The Role of Evidence-Based Management. Types of Decisions & Decision-Making Conditions. Decision-Making approaches - Quantitative approach, Environmental Approach, System Approach, Ethical Approach, Intuitive Approach, Case Study Approach Decision-Making Styles - Linear–Nonlinear Thinking Style Profile, Decision-Making Biases and Errors. Effective Decision Making in Today's World - Correctness of decision, Decision environment, Timing of decision, Effective communication of Decision, Participation in decision Making-Implementation of decision. **(7)**

5. **Controlling:** Controlling, Definition, need and Importance, The Control Process, Managerial Decisions in Controlling, Feed-forward / Concurrent / Feedback Controls. Financial Controls, Information Controls, Benchmarking of Best Practices. **(5)**

Suggested Text Books:

1. Fundamentals of Management by Robbins, S.P. and Decenzo, D.A., Pearson Education Asia, New Delhi.
2. Management, Koontz and Wehrich, TMGH
3. Management, Stoner, et. al., Prentice Hall of India, New Delhi.

Suggested Reference Books:

1. Management, Hellregel, Thomson Learning, Bombay
2. Management, Robbins & Coulter, Prentice Hall of Hall of India, New Delhi.
3. Management - Text & Cases, Satya Raju, PHI, New Delhi.
4. Management, Richard L. Draft, Thomson South-Western

Semester I		108 – Indian Economy
2 Credits	LTP: 2:0:0	Generic Elective – University Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO108.1	REMEMBERING	DESCRIBE the present state of Indian Economy and LIST major economic policy issues in the current context.
CO108.2	UNDERSTANDING	EXPLAIN the economic development strategy since Independence and DISCUSS the priorities in the current context.
CO108.3	APPLYING	ILLUSTRATE the economic impact of Monetary policy and Fiscal Policy, Economic Reforms, Demographic Transition in India, Changing profile of GDP, Growth and Inequality and Trade Policy in the Indian context.
CO108.4	ANALYSING	EXAMINE the changing profile of human capital, employment, productivity and ILLUSTRATE the linkages with Soft Infrastructure, growth of Start-ups, GDP composition of India.
CO108.5	EVALUATING	DETERMINE the key priority areas, across various dimensions, for the Indian Economy in the context of current economic environment.
CO108.6	CREATING	BUILD a case for co-existence of MNCs, Indian Public Sector, Indian Private Sector, SMEs, MSMEs and Start Ups in the Indian Economy.

1. Perspective of Indian Economy: Indian Economy as a Developing Economy, Basic Characteristics Overview of Economic Planning, Role of Monetary policy and Fiscal Policy, Budget terminology, Economic Growth, GDP and GDP Trends, Money Supply & Inflation, Inflation trends, RBI – overview of role and functions, Capital Markets – overview of role and functions, Concept of Poverty, Estimates of Poverty, Poverty Line, Economic Reforms and Reduction of Poverty, Concept of Inclusion, Need of inclusive growth, Financial inclusion. Concept of Hard & Soft Infrastructure. Hard Infrastructure - Transport Infrastructure, Energy Infrastructure, Water management infrastructure, Communication Infrastructure, Solid waste management, Earth monitoring and measuring networks. Soft Infrastructure - Governance Infrastructure, Economic infrastructure, Social infrastructure, Critical Infrastructure, Urban infrastructure, Green infrastructure, Education Infrastructure, Health Infrastructure. **(6)**

2. Human Resources and Economic Development : The Theory of Demographic Transition, Size and Growth Rate of Population in India, Quantitative Population Growth Differentials in Different Countries, The Sex Composition of Population, Age Composition of Population, Density of Population, Urbanization and Economic Growth in India, The Quality of Population, Population Projections (2001-2026), Demographic Dividend. **Human Development in India** - The Concept and Measures of Human Development, Human development Index for Various States in India, National Human Development Report, Changing profile of GDP and employment in India, GDP, Employment and Productivity per Worker in India, Relative Shift in the Shares of NSDP and Employment in Agriculture, Industry and Services in Different States. **(6)**

3. Sectoral composition of Indian Economy: Primary, Secondary, Tertiary Sectors, Issues in Agriculture sector in India ,land reforms, Green Revolution and agriculture policies of India , Industrial development , small scale and cottage industries, Industrial Policy, Public sector in India, Services sector in India. Areas of Market Failure and Need for State Intervention, Redefining the Role of the State, Liberalization, Privatization and Globalization (LPG) Model of Development, Planning commission v/s NITI Aayog, Public Versus Private Sector Debate, Unorganised Sector and India's Informal Economy. **(6)**

4. Inequality and Economic Power in India: FDI, Angel Investors and Start-ups, Unicorns, M&A, Investment Models, Role of State, PPP (Public-Private Partnership), Savings and Investment Trends. Growth of Large Industrial Houses Since Independence, Growth of Monopolies and Concentration of Economic Power in India, Competition Policy and Competition Law, Growth and Inequality, India as an Economic Superpower, Growth of the Indian Middle Class, Indian MNCs : Mergers and Acquisitions, Outsourcing, Nationalism and Globalization, Small-scale and Cottage Enterprises, The Role of Small-scale Industries in Indian Economy, Poverty, Vulnerability and Unorganized Sector Employment-The High Degree of Correlation, Estimate of Organized and Unorganized Workers. **(6)**

5. The Foreign Trade of India: Importance of Foreign Trade for a Developing Economy, Overview of Foreign Trade Since Independence, Composition of India's Foreign Trade, Direction of India's Foreign Trade, India's Balance of Payments on Current Account, Balance of Payments Crisis, Balance of Payments Since the New Economic Reforms of 1991, India's Trade Policy, India's Foreign Trade Policy, An Analysis of Trends in Exports and Imports, Special Economic Zones (SEZs)-An Overview. **(6)**

Suggested Text Books:

1. Indian Economy , Dutt R and Sundharam K.P.M, S .Chand, Delhi
2. Indian Economy, Agarwal A. N., Vikas Publishing House, Delhi
3. Indian Economy, Misra S.K. and Pury V.K., Himalaya Publishing House, New Delhi

4. Business Environment , Bedi S K, Excel Books
5. Economic Reforms in India - A Critique, Dutt Ruddar, S. Chand, New Delhi .

Suggested Reference Books:

1. Economic Environment of Business , Adhikary, Sultan Chand and Sons
2. Business, Government and Society, George A and Steiner G A, Macmillan
3. Economic Environment of Business , Ghosh, Vikas
4. Business Environment, Francis Cherunilam, Himalaya Publishing House, Bombay
5. Industrial Economy of India, Kuchhal S.C., Chaitanya Publishing House, Allahabad

Semester I		109 – Entrepreneurship Development
2 Credits	LTP: 2:0:0	Generic Elective – University Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO109.1	REMEMBERING	DEFINE the key terms, LIST the Attributes and Characteristics of Entrepreneurs features and ENUMERATE the Factors influencing Entrepreneurship Growth.
CO109.2	UNDERSTANDING	DISCUSS various theories of entrepreneurship and the entrepreneurship development ecosystem in Indian context.
CO109.3	APPLYING	APPLY the theories of entrepreneurship and entrepreneurship development framework to analyze and identify entrepreneurial opportunities.
CO109.4	ANALYSING	DISCRIMINATE between potential options available for entrepreneur for embarking on establishing a Start Up
CO109.5	EVALUATING	EVALUATE the start up ecosystem and the entrepreneurial opportunities in light of requirements of a business plan.
CO109.6	CREATING	CREATE a business plan that captures entrepreneurs and variety of entrepreneur motivations, entrepreneur culture and sectoral opportunities and financing options.

1. Entrepreneurship: Concept of Entrepreneur. Intrapreneur, Entrepreneurship and Manager. Difference between Entrepreneur and Intrapreneur, Entrepreneur and Entrepreneurship. Attributes and Characteristics of successful entrepreneurs. Functions of an Entrepreneur, Classification of Entrepreneurs. Role of Entrepreneur in Indian Economy, Developing entrepreneurial culture, Factors influencing Entrepreneurship Growth - Economic, Non-Economic Factors, For profit or Not for profit entrepreneurs, Constraints for the Growth of Entrepreneurial Culture, Entrepreneurship as a career, Entrepreneurship as a style of management, Emerging Models of Corporate Entrepreneurship, India’s start up revolution–Trends, Imperatives, benefits; the players involved in the ecosystem, Business Incubators-Rural entrepreneurship, social entrepreneurship, women entrepreneurs, Cases of Tata, Birlas, Kirloskar and new generation entrepreneurs in India. **(6)**

2. Theories of entrepreneurship: Innovation Theory by Schumpeter & Imitating, Theory of High Achievement by McClelland, X-Efficiency Theory by Leibenstein, Theory of Profit by Knight, Theory of Social change by Everet Hagen. **(4)**

3. Entrepreneurship development: Entrepreneurial Competencies, Developing Competencies. Concept of entrepreneurship development, Entrepreneur Training and developing, Role of Entrepreneur Development Programs (EDP), Role of DIC, SISI , EDII , NIESBUD, NEDB, EDP - Objectives – contents – methods - execution. Role of Mentors. Innovation and Entrepreneurship, Design Thinking Process. Role of consultancy organizations in promoting Entrepreneurs, Problems and difficulties of Entrepreneurs - Marketing Finance, Human Resource, Production; Research - external problems, Mobility of Entrepreneurs, Entrepreneurial change, occupational mobility - factors in mobility. **(6)**

4. Role of Central Government and State Government in promoting Entrepreneurship: Introduction to various incentives, subsidies and grants, Export Oriented Units, Fiscal and Tax concessions available, Women Entrepreneurs - Role, Problems and Prospects, Reasons for low women Entrepreneurs, Assistance Programme for Small Scale Units – Institutional Framework – Role of SSI Sector in the Economy – SSI Units – Failure, Causes and Preventive Measures – Turnaround Strategies. Future of Entrepreneurship Development and Government, Start Up India, Make in India. **(5)**

5. Enterprise Promotion: Creating Entrepreneurial Venture, Entrepreneurship Development Cycle, Business Planning Process, The business plan as an entrepreneurial tool, Elements of Business Plan, Objectives, Market Analysis, Development of product / idea - Resources, Capabilities, and strategies, identifying attributes of strategic resources, Opportunity Analysis, innovator or imitator, SWOT analysis, Internal and External Environment Analysis, Industry Analysis, Embryonic Companies and Spin off’s, Porter’s five forces model, Identifying the right Business

Model Canvas, Seven Domains of John Mullins, Opportunities in Emerging/Transition/Decline industries, Opportunities at the bottom of the pyramid, Opportunities in social sector, Opportunities arising out of digitization, Marketing, Finance, Organization & Management, Ownership - Franchising, networking and alliances, Buying an existing business, Critical risk contingencies of the proposal, Scheduling and milestones. **(9)**

Suggested Text Books:

1. Dynamics of Entrepreneurship Development, Vasant Desai
2. Entrepreneurship: New Venture Creation, David H. Holt
3. Entrepreneurship Development New Venture Creation, Satish Taneja, S.L.Gupta
4. Project management, K. Nagarajan.
5. Entrepreneurship: Strategies and Resources, Marc J. Dollinger

Suggested Reference Books:

1. The Culture of Entrepreneurship, Brigitte Berger
2. Innovation and Entrepreneurship, Peter F. Drucker
3. Entrepreneurship, Robert D. Hisrich, Michael P. Peters, Dean A. Shepherd
4. Entrepreneurship As Strategy, G. Dale Meyer, Kurt A. Heppard
5. New Vistas of Entrepreneurship: Challenges & Opportunities, A. Sahay, M.S.Chhikara
6. Entrepreneurship and Small Business Management, Siropolis
7. The Entrepreneurial Connection, Gurmeet Naroola
8. Thought Leaders, Steven Brandt
9. Corporate Entrepreneurship, Vijay Sathe
10. Corporate Entrepreneurship: Entrepreneurial Development Inside Organizations, Michael H.Morris, Donald F.Kuratko
11. Intrapreneurship: Gifford Pinchot
12. Lead like an Entrepreneur, Neal Thornberry
13. You Too Can Become an Entrepreneur, Nalinaksha Mutsuddi
14. Make The Move: Demystifying Entrepreneurship, Ishan Gupta, Rajat Khare

Semester I		110 – Essentials of Psychology for Managers
2 Credits	LTP: 2:0:0	Generic Elective – University Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO110.1	REMEMBERING	Describe the concepts of psychology in organization settings to understand individual and group behaviour
CO110.2	UNDERSTANDING	INTERPRET the influence of human psychology on individual and group performance
CO110.3	APPLYING	APPLY principles of learning and conditioning to shape the individual and group behaviour
CO110.4	ANALYSING	ILLUSTRATE the linkages between learning, memory and information processing.
CO110.5	EVALUATING	ASSESS the basic intrapersonal processes that influence social perception in organizational settings.

1. Basic Concepts: Introduction to Psychology, Definitions of Psychology, Goals of Psychology, History of Psychology, Modern Psychology, Psychology: Its Grand Issues and Key Perspectives, Psychology - Trends for the New Millennium. Biological Bases of Behavior: Neurons - Building Blocks of the Nervous System, The Nervous System - its Basic Structure and Functions, The Brain and Consciousness – states of consciousness, dreams, hallucinations, The Brain and Human Behavior, Heredity and Behavior - Genetics and Evolutionary Psychology. **(6)**

2. Sensation and Perception : Sensing and perceiving, Sensory Thresholds, Sensory Adaptation, The Senses - Hearing, Vision, Perceptual Processes, Information Processing – Bottom Up Processing, Top Down processing, Bottom Up and Top Down (together) processing, Culture, Experience & Perception, Perceptual Constancy, Perceptual Expectations, Perceptual illusions, Gestalt Theory, Perceptual Development and Learning. **(6)**

3. Learning and Conditioning: A Definition of Learning, Classical Conditioning, Instrumental Conditioning, Classical and Instrumental Conditioning Compared: Biofeedback and Reinforcement, Verbal Learning, Basic Conditioning and Learning Phenomena, Reinforcement, Schedules of reinforcement, role of reinforcement in developing subordinate Social Behavior, Transfer of Training, Learning by Observing Models, Biological Limits. **(6)**

4. Memory: Learning and Memory as Intertwined Processes, Kinds of Information Stored in Memory, Measures of Retention, The Three Components of Memory – Encoding, Storage, Retrieval, Interference Theory, Decay Theory, Information Processing I: Separate-Store Models, Information Processing II: Levels of Processing, Issues in Memory. **(6)**

5. Cognition: Thinking - Mental Imagery, Problem Solving, Decision Making. Concept Formation, Language development. Relationship between language and thinking. **Emotion:** Definition of Emotion, the Physiology of Emotion, Emotional Expression - Verbal & Non Verbal, Labelling Emotions, Theories of Emotion – Common sense theory of emotion, James Lang theory of emotion, Cannon Bard Theory of Emotion, Cognitive Arousal Theory of Emotion, Wellbeing and Resilience- its importance in preventing the onset of mental health **(6)**

Note: Relevant case studies should be discussed.

Suggested Text Books:

1. Psychology Ciccarelli, S. K & Meyer, G.E Pearson Education Ltd.
2. Introduction to Psychology, Clifford T. Morgan, Richard A King, John R Weisz and John Schopler, Indian Edition

Suggested Reference Books:

1. Essentials of understanding psychology, Feldman.S.R, Tata Mc Graw Hill.
2. Psychology, Baron, R.A and Misra, G. Pearson Education Ltd.

Semester I		111 - Legal Aspects of Business
2 Credits	LTP: 2:0:0	Generic Elective – University Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO111.1	REMEMBERING	DESCRIBE the key terms involved in each Act.
CO111.2	UNDERSTANDING	SUMMARIZE the key legal provisions of each Act.
CO111.3	APPLYING	ILLUSTRATE the use of the Acts in common business situations.
CO111.4	ANALYSING	OUTLINE the various facets of basic case laws of each Act from a legal and managerial perspective.
CO111.5	EVALUATING	DEVELOP critical thinking by making judgments related to use of various provisions of the Acts in business situations

1. **The Contract Act, 1872:** Essential Elements of Valid Contract, Essential elements of Valid Contracts, Contracts of Indemnity & Guarantee, Contingent Contract, Quasi Contract, Discharge of contract, Breach of contract-Meaning & remedies, Agency - Creation of Agency – Agent and Principal (Relationship/rights). **(5+1)**
2. **Sale of Goods Act, 1930:** Contract of sale of goods, Conditions & warranties, Transfer of property or ownership, Performance of the Contract of Sale, Rights of unpaid seller, Sale by Auction. **(5+1)**
3. **The Negotiable Instrument Act, 1881:** Negotiable Instruments – Meaning, Characteristics, Types. Parties, Holder and holder in due course, Negotiation and Types of Endorsements, Dishonor of Negotiable Instrument – Noting and Protest. **(5+1)**
4. **The Companies (Amendment) Act, 2015:** Company – Definition, Meaning, Features and Types, One Person Company, Incorporation of Company – Memorandum of Association (MOA), Articles of Association (AOA), Share capital & Debentures, Acceptance of deposits, Appointment of director including woman Director. **(5+1)**
5. **The Consumer Protection Act, 2019,** Unfair & Restrictive Trade Practices, Dispute Redressal Forums – District, State & National Forum, Composition, Jurisdiction, Powers, Appellate Authority. **(5+1)**

Suggested Text books:

1. Business Legislations for Management, M.C. Kuchhal
2. Elements of Mercantile Law, N.D.Kapoor
3. Business and Corporate Laws, Dr. P.C. Tulsian

Suggested Reference Books:

1. Legal Aspects of Business, Ravinder Kumar
2. Business Laws, S. D. Geet
3. Business Laws, S.S. Gulshan
4. Legal Aspects of Business, Akhileshwar Pathak

Semester I		112 – Demand Analysis and Forecasting
2 Credits	LTP: 2:0:0	Generic Elective – University Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO112.1	REMEMBERING	DESCRIBE the key terms associated with demand analysis, demand estimation and demand forecasting.
CO112.2	UNDERSTANDING	SUMMARIZE the use of demand forecasting in various functions of management.
CO112.3	APPLYING	APPLY the forecasting Techniques/Models (both Qualitative and Quantitative)
CO112.4	ANALYSING	DECONSTRUCT a forecast into its various components
CO112.5 CO212.6	EVALUATING CREATING	BUILD a forecast for common products and services using time-series data. Demonstrate conceptual understanding of Demand Planning and management

- 1. Demand Analysis:** An Overview, Significance of Demand Analysis and Forecasting, How Predictable Is the Future? Some Causes of Forecast Error, Myths versus Reality of Forecasting, Data Collection, Storage, and Processing Reality, Art- of-Forecasting, Reality of Judgmental Overrides, Reality of Unconstrained Forecasts, Constrained Forecasts, and Plans, Accuracy of Forecast , Short Run Forecast , Long Term Forecast. Applications of Forecasting – Forecasting economic trends, Sales Forecasts, Staffing forecasts, budgeting, revenue and tax planning, cash flows forecasting, raw material planning, inventory planning, etc.(5+1)
- 2. Estimation of Demand** - Marketing Research Techniques - Consumer Surveys, Consumer Clinics and Focus Groups, Market Experiments in Test Stores. Statistical Estimation, Variable Identification, Time Series and Cross Sectional Data Collection, Specification of the Model, Estimation of the Parameters, interpretation of Regression Statistics.(5+1)
- 3. Forecasting Demand** : Overview of Forecasting Methods, Selecting a Forecasting Technique, Purpose of Forecast, Type of Users, Patterns in the Data Series, Lead Time, Minimum Data Requirement, Desired Accuracy, Cost of forecasting, Qualitative Forecasting Techniques - Survey and Opinion Polling Techniques, Delphi Method, Cross Impact Analysis, Historical Analogy.(5+1)
- 4. Quantitative Forecasting Methods** Using Time Series Data: Time Series Analysis - Trend Analysis, Cyclical Variations, Seasonal Effects, Random Fluctuations, Smoothing Techniques, Moving Averages, Exponential Smoothing, Single Exponential Smoothing, Holt’s Two-Parameter Method, Holt’s-Winters’ Method, Winters’ Additive Seasonality Standard Statistical Error Terms, Specific Measures of Forecast Error. (5+1)
- 5. New Product Forecasting:** Differences between Evolutionary and Revolutionary New Products, General Feeling about New Product Forecasting, New Product Forecasting Overview, What Is a Candidate Product? New Product Forecasting Process, Structured Judgment Analysis, Structured Process Steps, Statistical Filter Step. (5+1)

Suggested Text Books:

1. Demand-Driven Forecasting: A Structured Approach to Forecasting, Charles W. Chase
2. Demand Forecasting for Managers, Stephan Kolassa
3. Forecasting: Principles and Practice, George Athanasopoulos and Rob J. Hyndman

Suggested Reference Books:

1. Fundamentals of Demand Planning and Forecasting - Forecasting & Planning , Chaman L. Jain and Jack Malheron

Semester II		207 – Contemporary Frameworks in Management
2 Credits	LTP: 2:0:0	Generic Elective – University Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO207.1	REMEMBERING	Understanding various traits, theories, models of emotional intelligence and its implications to address key questions within the organizations.
CO207.2	UNDERSTANDING	Describe how companies can become good to great through their leaders and right positioning of people and explain why and how most companies fail to make the transition
CO207.3	APPLYING	Explain the importance of team dynamics & a systems perspective for the leadership role and challenges of managing people in organizations.
CO207.4	ANALYSING	Scrutinize the role of individual, groups, managers and leaders in influencing how people behave and in influencing organizational culture at large.
CO207.5	EVALUATING	Application of different ideas and information effectively to rebuild individual, team, managerial and leadership behavior in order to achieve organizational excellence in a positive and collaborative manner to achieve common culture.
Co207.6	CREATING	Design Individual Assessment with the help of EQ, Habits and Team's susceptibility to five dysfunction.

- Emotional Intelligence :** What is Emotional Intelligence, Benefits of EI, Understand the difference between Trait EI and Ability EI, 5 Dimensions of Trait EI Model - Self Awareness (SA), Managing Emotions (ME), Motivation (M), Empathy (E), Social Skills (SS) - Self awareness (SA) - Self Awareness, Seeing the other side, Giving in without giving up, Life Positions – you and only you can choose your mindset, Managing Emotions (ME) - Self-Regulation, Managing Emotions, The 'EQ brain' and how it works, The science of emotions, Understanding Emotions, Find your self-control, Using Coping Thoughts, Using Relaxation Techniques, Self-Motivation (M) – Optimism, Pessimism, The balance between optimism and pessimism, The power of re-framing, Empathy (E) – Empathy, Barriers to empathy, Developing your empathy, Social Skills (SS) - Social skills, Making an impact, Creating a powerful first impression, Assessing a situation, Being zealous without being offensive, Traits of a person with high social skills. Determine your EQ
- The 7 habits of highly effective people:** Paradigms and principles, Inside-out, The seven habits - an overview - Private victory Habit 1. Be proactive: principles of personal vision, Habit 2. Begin with the end in mind: principles of personal leadership, Habit 3. Put first things first: principles of personal management, Public victory. Paradigms of interdependence. Habit 4. Think win/win: principles of interpersonal leadership, Habit 5: Seek first to understand, then to be understood: principles of empathetic communication, Habit 6. Synergize: principles of creative cooperation, Renewal. Habit 7. Sharpen the sword: principles of balanced self-renewal
- Five dysfunctions of a team:** Absence of trust—unwilling to be vulnerable within the group, Fear of conflict—seeking artificial harmony over constructive passionate debate, Lack of commitment—feigning buy-in for group decisions creates ambiguity throughout the organization, Avoidance of accountability—ducking the responsibility to call peers on counterproductive behavior which sets low standards, Inattention to results—focusing on personal success, status and ego before team success
- The 21 irrefutable laws of leadership:** The law of the lid, The law of influence, The law of process, The law of navigation, The law of addition, The law of solid ground, The law of respect, The law of intuition, The law of magnetism, The law of connection, The law of the inner circle, The law of empowerment, The law of the picture, The law of buy-in, The law of victory, The law of the big mo, The law of priorities, The law of sacrifice, The law of timing, The law of explosive growth, The law of legacy.
- Good to Great:** Level 5 Leadership - Leaders who are humble, but driven to do what's best for the company, First Who, Then What: Get the right people on the bus, then figure out where to go. Find the right people and try them out in different seats on the bus (different positions in the company), Confront the Brutal Facts: The Stockdale paradox, Hedgehog Concept: Three overlapping circles: What lights your fire ("passion")? What could you be best in the world at ("best at")? What makes you money ("driving resource")? Culture of Discipline: Rinsing the cottage cheese, Technology Accelerators: Using technology to accelerate growth, within the three circles of the hedgehog concept, The Flywheel: The additive effect of many small initiatives.

Suggested Reference Books:

- Emotional Intelligence, Daniel Goleman
- The 7 Habits of Highly Effective People: Powerful Lessons in Personal Change, Stephen R. Covey
- The Five Dysfunctions of a Team: A Leadership Fable , Patrick M. Lencioni

4. The 21 Irrefutable Law of Leadership-John C. Maxwell
5. Good to Great, Jim Collins

Suggested Videos:

https://www.youtube.com/watch?v=Ro0NBgHo_a8
<https://www.youtube.com/watch?v=EQyLMvivW2s>
<https://youtu.be/xaTmv67WpRM>
https://youtu.be/zu7_q8bXMi0
<https://youtu.be/XVl1YZdma08>
<https://youtu.be/xcl1BUeypNRo>
<https://youtu.be/7cKqKSVhzy4>
<https://youtu.be/ICCITIC59Gg>
 (659) Book Summary | The 21 Irrefutable Laws of Leadership | John C. Maxwell - YouTube

Semester II		208 - Geopolitics & World Economic Systems
2 Credits	LTP: 2:0:0	Generic Elective – University Level

Course Outcomes: At the end of this course, the learner shall be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO208.1	REMEMBERING	ENUMERATE the various elements of global economic system.
CO208.2	UNDERSTANDING	EXPLAIN the role of key trade organizations in the global economic system.
CO208.3	APPLYING	IDENTIFY the crucial elements of international trade laws.
CO208.4	ANALYSING	ANALYSE the forces that work for and against globalization.
CO208.5	EVALUATING	ASSESS the impact of the elements of the Global Economic System on the India Economy.
CO208.6	CREATING	CREATE a Country Profile based on various aspects of Geopolitics and World Economic Systems

1. **Introduction to Global Economic & political Systems:** Meaning of Global Economy and its History Structure and Components of Global Economy, Theory of Hegemonic Stability, Differences among National Economies, Market Oriented Capitalism, Developmental Capitalism, Social Market Capitalism, Comparative Analysis, Effects of Globalization on Indian Economy. **(6)**
2. **The Trading System:** Debate over Free Trade – Functions of GATT and WTO, The Uruguay Round and World Trade Organization, Trade Blocs – EU, OECD, OPEC, SAARC, ASEAN, NAFTA, Threats to Open Trading System, Developments in International Trade Theory, Bi-lateral, Multilateral Trade Agreements, Impact of Trade wars in liberalized economy. **(6)**
3. **International Trade Laws:** International Contracts of Sale of Goods Transactions, International Trade Insurance, Patents, Trademarks, Copyright and Neighboring Rights. Intellectual property Rights, Dispute settlement Procedures under GATT & WTO, Payment systems in International Trade, International Labour Organization and International Labour Laws. **(6)**
4. **International Monetary System:** The International Financial System - Reform of International Monetary Affairs - The Bretton Wood System and the International Monetary Fund, Controversy over Regulation of International Finance, Developing Countries' Concerns, Exchange Rate Policy of Developing Economies. **(6)**
5. **Contemporary issues and Challenges in Global Economic Environment - Indian perspective:** Globalization and its Advocacy, Globalization and its Impact on India, Fair Globalization and the Need for Policy Framework, Globalization in Reverse Gear-The Threatened Re-emergence of Protectionism. Euro zone Crisis and its impact on India, Issues in Brexit, World recession, inflationary trends, impact of fluctuating prices of crude oil, gold etc. **(6)**

Suggested Text Books:

1. Global Political Economy, Robert Gilpin, Princeton University Press
2. International Trade Law An Interdisciplinary, Raj Bhala, Non-Western Textbook
3. International Trade Law, Indira Carr and Peter Stone
4. Development and Sustainability: India in a Global Perspective edited by Sarmila Banerjee, Anjan Chakrabarty

Suggested Reference Books:

1. International Economics, Paul Krugman, Maurice Obstfeld and Marc Melitz, Pearson, Global Edition
2. Globalizing Capital, A history of the International Monetary system, Barry Eichengreen, Princeton University Press.

Semester II		209 - Start Up and New Venture Management
2 Credits	LTP: 2:0:0	Generic Elective – University Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO209.1	REMEMBERING	DESCRIBE the strategic decisions involved in establishing a startup.
CO209.2	UNDERSTANDING	EXPLAIN the decision making matrix of entrepreneur in establishing a startup.
CO209.3	APPLYING	IDENTIFY the issues in developing a team to establish and grow a startup
CO209.4	ANALYSING	FORMULATE a go to market strategy for a startup.
CO209.5	EVALUATING	DESIGN a workable funding model for a proposed startup.
CO209.6	CREATING	DEVELOP a convincing business plan description to communicate value of the new venture to customers, investors and other stakeholders.

- 1. Being an Entrepreneur:** The entrepreneur, Profile analysis, behaviour and motivations, Lean Start –up, The entrepreneurial ecosystem, Entrepreneurs and strategic decisions , Sustainability of Entrepreneurship: Dilemmas of an entrepreneur for success; Handling doubts on survival of business, Struggles-Causes of failure–Product/ market, financing, managerial-Resilience. Legal Fundamentals - When, how and where to incorporate. **(5)**
- 2. Customer Discovery:** Entrepreneurial Opportunity Search and Identification; Market Intelligence, Market analysis, Market research, Customer validation, developing your business model, Crafting your value proposition, Product Development , Managing the product development process, Long Tail markets, Product launch goals, Go-to-Market Strategy, The role of selling in a startup, Sales forecasting for startups, Mapping buyer response modes. Social media Promotion tools. **(7)**
- 3. The Financial Road Map:** Planning/Budgeting, Developing a financial roadmap, financial statements: the four components, How to budget for startup success, Bootstrapping and alternative sources of funding, Informal capital–Friends & Family, Role of Government in ED, various schemes - PMEGP, CGTMSE, MPDA, SFURTI. Role of MSDE; Schemes by MSDE: PMKVY, SANKALP, STAR. Crowd funding, Venture capital, Private Equity, Financing Mix and the Financing continuum shareholding- Cliff -Vesting schedule-Relative importance of Operational Involvement, The Pitch, Preparing for your investor presentation, Elements of the perfect investment pitch. **(6)**
- 4. Entrepreneurial Leadership:** Building and managing the founder team, Attracting and retaining the right people, The Team - Board/Governance, The role of a successful board, Different board models for different ventures, How to assemble a board of advisors, separating leadership from management, Legal Matters- Organizational form–partnership, sole proprietorship, Tax, Legal expenses, hiring the service providers. Employee management and leadership in the workforce, Recruiting, selection and hiring, Hiring the first employee. **(5)**
- 5. Business Plan:** Need & Objectives, Target audience, Contents - Cover page and table of contents, Executive summary, Description of the current situation: Basic company information, products/services, management team, business organization, future goals, vision, and mission, Description of opportunity and market: Who are the buyers, who are the competitors, what are the competitive advantages of the company? Description of the business model, the marketing and sales strategy, Basic facts on the financials: Cash flow projection (life line), income statement (bottom line/profit and loss), balance sheet (business health/assets, liabilities, etc.), funding requirements, Risk analysis and possible exit strategies. Conclusion and appendixes: Résumés, literature, technical descriptions. Executive summary. Elevator pitch, Building a strong presentation, innovative methods of presenting a business plan –mind map, animated videos, etc. **(7)**

Suggested Text Books:

1. New Venture Management: The Entrepreneur's Roadmap (Entrepreneurship Series), Donald F. Kuratko and Jeffrey S. Hornsby, Pearson
2. The Manual for Indian Start-ups: Tools to Start and Scale-up Your New Venture, Vijaya Kumar Ivaturi, Meena Ganesh, Penguin Random House India.
3. Managing New Ventures, Anjan Raichoudhuri, Prentice-Hall of India Pvt.Ltd
4. Develop Your Idea!: Get Off to a Flying Start With Your Startup. Guided Exercises, Templates & Resources for Exploring New Business Ventures, K. N. Kukoyi
5. Managing Small Business by Longenecker, Moore, Petty and Palich, Cengage Learning, India Edition.
6. Entrepreneurship: New Venture Creation by David H. Holt
7. The Dynamics of Entrepreneurial Development & Management by Desai, Vasant , Himalaya Publishing House, Delhi
8. Entrepreneurship and Small Business Management by Siropolis
9. Lead like an Entrepreneur by Neal Thornberry

Suggested Reference Books:

1. Fundamentals of Entrepreneurship, Nandan H, PHI

2. Cases in Entrepreneurship by Morse and Mitchell, Sage South Asia Edition.
3. Entrepreneurship – Indian Cases on Change Agents by K Ramchandran, TMGH.
4. Entrepreneurship – The engine of growth, edited by Mark Rice and Timothy Habbershon, Published by Praeger Perspectives.
5. Entrepreneurship: Theory, Process and Practice by Kuratko, D.F. & Hodgetts, R.M. Thomson Press.
6. Entrepreneurship Development: Small Business Enterprises by Charantimath, P. , Pearson.
7. A Guide to Entrepreneurship by David, Otes , Jaico Books Publishing House, Delhi.
8. Indian Entrepreneurial Culture by A Gupta , New Age International.
9. Make The Move: Demystifying Entrepreneurship by Ishan Gupta, Rajat Khare

Semester II		210 – Qualitative Research Methods
2 Credits	LTP: 2:0:0	Generic Elective – University Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOME
CO210.1	REMEMBERING	DESCRIBE the stages of scientific researches and qualitative research methods.
CO210.2	UNDERSTANDING	COMPARE characteristics of qualitative research and quantitative research.
CO210.3	APPLYING	CONSTRUCT appropriate research and sampling designs for Qualitative research work in real world business and non-business contexts
CO210.4	ANALYSING	ANALYZE the use of appropriate Qualitative research methods in real world Business and non-business contexts.
CO210.5	EVALUATING	ASSESS the Qualitative Research work with the help of different quality criteria
CO210.6	CREATING	COMBINE Qualitative and Quantitative research approaches in a real world Research project.

1. **Qualitative Research:** Nature, Relevance, Need, Characteristics and Limitations of Qualitative Research, Ethics in Qualitative Research, Interrelationship of Qualitative and Quantitative Research, Linking Qualitative and Quantitative Research in One Design, Combining Qualitative and Quantitative Data, Combining Qualitative and Quantitative Methods, Linking Qualitative and Quantitative Results, Triangulation. Role of Qualitative Research in Various Business Functions. **(5)**
2. **Qualitative Research Design:** Basic Qualitative Research Designs, Case Studies, Comparative Studies, Retrospective Studies, Longitudinal Qualitative Studies, Appropriateness of the Approach to the Issue, Fitting the Approach into the Research Process. Qualitative Research Sampling - Theoretical Sampling, Gradual Selection as a General Principle in Qualitative Research, Purposive Sampling, Width or Depth as Aims of Sampling, Case Constitution in the Sample, Sample Size decisions in Qualitative Research, Principle of Saturation. **(5)**
3. **Qualitative Research Methods:** Focused Interview, Semi-Standardized Interview, Problem-Centered Interview, Expert Interview, Group Interviews, Focus Groups, Non-participant Observation, Participant Observation, Ethnography. Grounded Theory Methodology. **(5)**
4. **Projective Techniques:** Principle of projection, applications, association, construction, expression based techniques, design and interpretation, Zaltman’s Metaphor Elicitation Techniques. **(5)**
5. **Quality Criteria in Qualitative Research:** Reliability, Validity, Objectivity, Alternative Criteria, Criteria for Evaluating the Building of Theories, Quality Assessment as a Challenge for Qualitative Research, Triangulation, Analytic Induction, Generalization in Qualitative Research, The Constant Comparative Method, Process Evaluation and Quality Management. **(5)**

Suggested Text Books:

1. An Introduction to Qualitative Research, Uwe Flick, 4th Edition, SAGE
2. Research Methods in the Social Sciences, Bridget Somekh & Cathy Lewin, 5th Edition, SAGE India
3. Qualitative Research Methods For The Social Sciences 9th Edition by HOWARD LUNE and BRUCE L BERG , PEARSON INDIA

Suggested Reference Books:

1. Qualitative Research Methods in Public Relations and Marketing Communications, Christine Baymon & Immy Holloway, Routledge
2. Qualitative Journeys, Minichiello & Kottler, SAGE

Semester II		211 – Business, Government & Society
2 Credits	LTP: 2:0:0	Generic Elective – University Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOME
CO211.1	REMEMBERING	DESCRIBE the economic roles of government in the Indian context.
CO211.2	UNDERSTANDING	EXPLAIN the macroeconomic crises around the world.
CO211.3	APPLYING	ILLUSTRATE the interlinkages between economic growth , poverty and inequality.
CO211.4	ANALYSING	EXAMINE the rationale, success and failures of Public Private Partnerships in the Indian context.
CO211.5	EVALUATING	ASSESS the forces for and against Globalization and the socio-economic impact of Globalization.
CO211.6	CREATING	DISCUSS the interplay between technology, business and society.

1. Roles of Business, Government, and Society: Interdependence and Conflict, Regulation of Business, Functions of State; Economic roles of government; Government and legal environment; Economic roles of Government in India; Indian experience with overall and sectoral growth, Inter-sectoral linkages and role of foreign direct investment, The Constitutional environment , Macroeconomic crises since 1990s- Indian and global experiences.

2. Poverty, Inequality and Economic Growth: Industrial Development, Rural-Urban Dynamics, Population and Development, Finance for Development, Trade and Development, State and the Market, Privatization and Regulation, Institutions and Growth.

3. Public Private Partnerships: The Rationale for Public Private Partnerships, Different Kinds of Public Private Partnerships with a special emphasis on the Build Operate and Transfer Model (BOT), Issues in Regulation that come about with privatization, Pricing mechanisms available to a regulator to ensure universal access and efficiency, Discussion of the privatization experience in different sectors, water, electricity, telecommunication, and railways with a special emphasis on India.

4. Multinational Corporations: Perspectives on Globalization, Globalization: The MNC and TNC Organizations, Globalization of Brands, Globalization of the Indian Business and Firms, Coping with Global Competition, Conflict with Nation States. Domestic and Global forces - for and against Globalization, Brexit and latest developments.

5. Business in a Global Environment: Business as Blending of People Technology and Ethical Behaviour, Achieving Business Success through Social Responsibilities, Changing Workplace - Influence of demography, influence of technology, gender issues, social justice and affirmative action, Industrial Relations.

Suggested Text Books:

1. Business, Government and Society: A Managerial Perspective by John Steiner, George Steiner, Tata McGraw Hill
2. Business, Government, and Society by Douglas E. Greer, Prentice Hall
3. Business and Its Environment by David P., International Edition

Semester II		212 - Business Process Reengineering
2 Credits	LTP: 2:0:0	Generic Elective – University Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO212.1	REMEMBERING	DEFINE the key terms associated with Business Process Reengineering.
CO212.2	UNDERSTANDING	EXPLAIN the various supporting and opposing forces to Business Process Reengineering in simple business situations.
CO212.3	APPLYING	APPLY modeling tools for simple business processes.
CO212.4	ANALYSING	FORMULATE a working plan to establish a Business Process Reengineering team.
CO212.5	EVALUATING	EVALUATE the success of a BPR initiative in relation to the impact on organizational KPIs.
CO212.6	CREATING	IMAGINE ways to improve business or non-business processes.

1. Introduction to Business Process Reengineering (BPR): Definition of business processes – Concept of BPR - Definition of business process redesign, BPR - Evolution, Definition, Need for reengineering, Benefits, Role of leader & manager, Breakthrough reengineering model, BPR guiding principles, Business process reengineering &

performance improvement, Key targets of BPR, Myths about BPR , What reengineering isn't , BPR and other management concepts: TQM, Quality function deployment, ISO standards, ERP. BPR and Process Simplification, BPR and Continuous Improvement. (6)

2. **Business vision and process objectives:** The Key Elements of BPR, Develop a Vision, Establish a Responsible Team, Prepare the Organization for Change, Redesign the Business Process, Case Studies. Business Processes, People, Information Technology. Processes to be redesigned, selection criteria, dysfunction, importance feasibility. Measuring existing processes, BPR Goals – Cycle time reduction, Cost reduction, Quality improvement, Customer Satisfaction, BPR team characteristics. (6)

3. **Enablers of BPR:** Enablers of BPR in manufacturing – Agile Manufacturing, Lean Manufacturing, JIT, Collaborative Manufacturing, Intelligent Manufacturing, Production Planning, Product design & development. Relationship between BPR and information technology, Role of information technology in reengineering, Criticality of IT in business process. (6)

4. **BPR implementation methodology:** Different BPR Methodologies, Different Phases of BPR, Relationship between BPR phases, Tools used in Modelling the Business - flow-charting, business activity maps, relational diagrams, benefit/cost analysis, Process Modelling, Notations, Case Studies. BPR KPIs Definition, Measuring KPIs, Methodologies (Common Assessment Framework (CAF), Balanced Scorecard), Case Studies. (6)

5. **Change Management:** The Power of Habit in organizations, Planned changes in business re-engineering projects; Factors relating to change management systems and culture, Committed and strong leadership, Factors relating to organizational structure, Factors related to BPR program management, Factors related to IT infrastructure, Factors Relating to BPR Failure, Problems in communication and organizational resistance, Lack of organizational readiness for change, Problems related to creating a culture for change, Lack of training and education, Factors related to management support, Ineffective BPR teams, A framework for barrier management.

Suggested Text Books:

1. Hammer, M. and Champy, J, Re-engineering the Corporation: A Manifesto for Business Revolution, Harper Business
2. R. Radhakrishnan S.Balasubramanian, Business Process Reengineering, PHI
3. Vikram Sethi and William R. King, Organisational Transformation through Business Process Reengineering, Pearson
4. K. Shridhara Bhatt, Business Process Reengineering, Himalaya Publications
5. Hammer, M. and Stanton, S.A, The Re-engineering Revolution, Harper Business

Suggested Reference Books:

1. Harmon, P , Business Process Change : A Guide for Business Managers and BPM and Six Sigma Professionals, Elsevier/Morgan Kaufmann Publishers.
2. Kock, N.F., Process Improvement and Organizational Learning: The Role of Collaboration Technologies, Idea Group.
3. R. Anupindi et al., Managing Business Process Flows: Principles of Operations Management, Pearson Education Inc.
4. Walford, R.B., Business Process Implementation for IT Professionals and Managers, Artech House.
5. Henry J Johansson, H J Johansson, Mo, Business Process Reengineering, Wiley

Generic Courses (Electives) – Institute Level – Semester I & II

Semester I		113 - Verbal Communication Lab
2 Credits	LTP: 0:3:1	Generic Elective – Institute Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO113.1	REMEMBERING	RECOGNIZE the various elements of communication, channels of communication and barriers to effective communication.
CO113.2	UNDERSTANDING	EXPRESS themselves effectively in routine and special real world business interactions.
CO113.3	APPLYING	DEMONSTRATE appropriate use of body language.
CO113.4	ANALYSING	TAKE PART IN professional meetings, group discussions, telephonic calls, elementary interviews and public speaking activities.
CO113.5	EVALUATING	APPRAISE the pros and cons of sample recorded verbal communications in a business context.
CO113.6	CREATING	CREATE and DELIVER effective business presentations, using appropriate technology tools, for common business situations.

- Basics of Communication:** Communication elements and process, Need of Communication Skills for Managers, Channels, forms and dimensions of communication, Verbal and non-verbal communication, Principles of nonverbal communication - through clothes and body language, Persuasive communication: the process of persuasion, formal and informal persuasion, Barriers to communication and how to overcome the barriers, Principles of effective communication. **(5)**
- Speaking:** Characteristics of effective speech, voice quality, rate of speaking, clear articulation, eye contact, use of expressions, and gestures and posture; Types of managerial speeches: speech of introduction, speech of vote of thanks, occasional speech, theme speech, formal speeches during meetings. **(5)**
- Soft skills:** How communication skills and soft skills are inter-related, Body language-posture, eye-contact, handling hand movements, gait - Voice and tone, Meeting and Boardroom Protocol - Guidelines for planning a meeting, Before the meeting, On the day of the Meeting, Guidelines for Attending the meeting, For the Chairperson, For attendees, For Presenters, Telephone Etiquette, Cell phone etiquette, Telephone etiquette guidelines, Mastering the telephone courtesy, Active listening, Putting callers on hold, Transferring a call, Screening calls, Taking a message, Voice Mail, Closing the call, When Making calls, Closing the call, Handling rude or impatient clients, Cross-cultural communication, cultural sensitivity, Cross-cultural issues which affect Communication across different Cultures, Culture and non-verbal communication, Effective intercultural communication, Business and social etiquette. **(7)**
- Presentation skills:** Principles of Effective Presentations, Planning, Structure and Delivery, Principles governing the use of audiovisual media, Time management - Slide design and transition: representation of textual information into visuals for effectiveness of communication - Style and persuasiveness of the message - Adherence to the number of slides, Dynamics of group presentation and individual presentation. **(5)**
- Interviews:** Essentials of placement interviews, web /video conferencing, tele-meeting. Impression Formation, Tactics, The Self-presentational Motive, The Compass Qualities; First and Lasting Impressions; Magic Pills; Toxic Traits; The Social Context: Norms and Roles, The Target's Values, Physical Appearance; Communication Style; Content of Communication; Actions; The Environment; Success; Changing from the Outside-in, Current Social Image, The Private Self, Worrying about Impressions. **(5)**

Note:

- The entire course should be delivered with a skills development focus.
- Video recordings of student's performances (speaking tasks) should be carried out and used for intensive reviews for performance improvement.

Suggested Text Books:

- Business Communication Today, Bovee C L et. al., Pearson Education
- Business Communication, P.D. Chaturvedi, Pearson Education
- Business Communication, T N Chhabra, Bhanu Ranjan, Sun India
- Verbal and Non-Verbal Reasoning, Prakash, P, Macmillan India Ltd., New Delhi
- Objective English, Thorpe, E, and Thorpe, S, Pearson Education, New Delhi

Suggested Reference Books:

- Communication Skills for Effective Management, Hargie et. al., Palgrave
- Communication for Business, Tayler Shinley, Pearson Education

3. Technical Communication, Anderson, P.V, Thomson Wadsworth, New Delhi
4. The Oxford Guide to Writing and Speaking, John Seely, Oxford University Press, New Delhi
5. Dictionary of Common Errors, Turton, N.D and Heaton, J.B, Addison Wesley Longman Ltd.

Semester I		114 - Enterprise Analysis - Desk Research
2 Credits	LTP: 0:3:1	Generic Elective – Institute Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO114.1	REMEMBERING	DESCRIBE the key historical, organizational, market related, financial, governance, leadership and social responsibility dimensions of a real world business organization.
CO114.2	UNDERSTANDING	SUMMARIZE the regional, national and global footprint of a real world business organization.
CO114.3	APPLYING	DEMONSTRATE the use of secondary – offline and online resources to profile a real world business organization.
CO114.4	ANALYSING	ANALYSE, using tables and charts, the trends in market standing and financial performance of a real world business organization over the last 5 years.
CO114.5	EVALUATING	COMPOSE a succinct summary of future plans of a real world business organization the company website, shareholders reports and other information available in the public domain.
CO114.6	CREATING	IMAGINE the key challenges and opportunities for a real world business organization in the immediate future (1 to 3 years).

1. **Enterprise History & Background:** Establishment, Original & Current Promoters, Business Group or Business Family to which it belongs, Vision-Mission-Philosophy – Values-Quality Policy, Brief profiles of the Chairman, CEO, MD, Members of Board of Directors along with their career highlights CSR Initiatives, Technical and other collaborations if any, Recent Mergers and Acquisitions, if any. **(6)**
2. **Organization :** Organization Structure, Geographical (domestic and global) foot print – at the time of inception and spread over the years, company’s current head quarter worldwide as well as head quarter / corporate office in India, Manufacturing /Service locations Indian and major worldwide, Certifications if any - ISO / EMS / FDA / CMMI , etc. Online presence. Initiatives towards gender diversity, Initiatives towards social inclusion, Initiatives towards environment conservation. Current Talent needs. Key highlights of the company’s website. **(6)**
3. **Markets:** Major Customers, customer segments, Products, Product lines, Major Brands, Market Share – nationally, region wise, product wise, Advertising Agency, Advertising Punch Line/Slogan, Logo, Key Alliances in the past 5 years & impact. Mergers & Acquisitions, if any. Technological developments. Disruptive innovations affecting the organization. Labour unrest if any – reasons thereof and impact. Emerging potential competition through first generation entrepreneurs or global / local players. **(6)**
4. **Financials:** Data to be studied, tabulated, graphically depicted, analyzed and presented for last 5 years for the Revenues, Profitability, Market Capitalization, Segmented Revenues, Auditors. Listing status & Scrip Codes – BSE and NSE, Global Listings on International Stock Markets, Share Price Face Value, Current Market Value, Annual High Low Figures, P/E Ratio, Shareholding Pattern. **(6)**
5. **Governance:** Philosophy, Action taken by SEBI if any, Involvement in Scams, Insider Trading Issues, Standard & Poor’s Corporate Governance Scores, CRISIL Rating. Major Awards and Achievements of the Organization in the last 5 years. Forward looking statements of the top management. **(6)**

Note:

1. Students should work in groups of 3 to 5 each under the guidance of a faculty.
2. Students shall carry out an indepth study of any THREE Organizations of their choice.
3. Organizations selected should demonstrate a variety across sectors, ownerships, size, and other key dimensions.
4. Students shall submit a structured detailed report.

Suggested Text Books:

1. No text books are prescribed.
2. The course has to be taught using the company annual reports and other publications, company website, social media feeds, business newspapers and business data bases such as ACE equity, CRISIL database, etc.

Semester I		115 - Selling & Negotiations Skills Lab
2 Credits	LTP: 0:3:1	Generic Elective – Institute Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 115.1	REMEMBERING	DESCRIBE the various selling situations and selling types
CO 115.2	UNDERSTANDING	OUTLINE the pre-sales work to be carried out by a professional salesperson.
CO 115.3	APPLYING	IDENTIFY the key individuals involved in a real world sales process for a real world product/ service / e-product / e-service.
CO 115.4	ANALYSING	FORMULATE a sales script for a real world sales call for a product/ service / e-product / e-service.
CO 115.5	EVALUATING	RECONSTRUCT the pros and cons of sample real world sales calls for a product/ service / e-product / e-service.
CO 115.6	CREATING	DEVELOP a sales proposal for a real world product/ service / e-product / eservice and for a real world selling situation.

1. Basics of Selling:

Definition, Fundamentals & Importance of Selling. Role in the context of organization – survival and growth. Types of Selling - Different in selling situations, New business versus service selling, Newton’s classification of sales types, McMurry & Arnold’s classification of selling types, Consumer indirect selling, Industrial selling, Missionary, Sales Team/group selling Merchandising, Telesales, Franchise selling, International selling. (5)

2. Pre-Selling Work :

Attributes of a Good Salesperson - Personality & physical characteristics, Enthusiasm, Confidence, Intelligence, Self-worth, Knowledge- product, Competition, organization, market, customer, territory; People Buy From People, Communication skills, Persuasive skills, Personal Diary, Time management, Managing Sales Documents and collaterals management. Fear Factor in Sales. Maximising Productivity in a Sales Role, Meetings and Your Time, The Telephone - Social Media & Online Data Bases as a Sales Tools, Developing Your Script, Mailers, Pre-Call Planning, Generating Appointments. (7)

3. Selling in Action:

Identifying Key Individuals – Prospecting, Influencers and Decision Makers, Talking to the Right Individuals, Making that Good First Impression, How to Win Friends and Influence People, Dale Carnegies Six Principles of Relationship, What’s In It For Me?, Honesty and Integrity. (5)

4. **Objection handling:** Analyzing the Reasons for Objections, Seeing What We Can Do, Listen - Probe - Advise (L-PA), Exercise: Objection Handling, Uncovering Objections, Seven Types of Objections, Turning Objections into Selling Opportunities. Selling Techniques: Cross Selling, Up Selling, Value Added (Suggestive) Selling, Advancing Opportunity, Exceeding Customer Expectations, Giving Recognition. (6)

5. **Sales Conversation, Negotiation & Closure:** Starting a Quality Prospecting Conversation, Listeners Control Conversations, Trial Closing, Creating an Opportunity: Situation vs Problem Questions, Difficulty Questions, Negative and Positive Answer Questions, Directive Questions, Rhetorical Questions. Negotiation Styles/Strategies (5), Negotiation Process, Reverse Psychology in Negotiation. Sales Proposals: How to Construct a Sales Proposal, Important Factors to Consider, Putting It All Together. (7)

Note: 1. The course should be delivered from a skills building perspective.

2. Principles should be supplemented by live exercises on personal.

Suggested Text Books:

1. Selling & Sales Management, Geoffrey Lancaster & David Jobber, Macmillan India Ltd.
2. Negotiation: Communication for diverse settings, Michael L Spangle and Myra Isenhardt, Sage South Asia Edition.
3. The Sales Bible: The Ultimate Sales Resource, Jeffrey Gitomer, Wiley India
4. How to win friends and influence People, Dale Carnegie
5. The Art of Closing the Sale, Brian Tracy, Pearson Education.
6. Questions are the answers: Allen Pease

Suggested Reference Books:

1. Sales Management, Bill Donaldson, Palgrave Publications
2. You can negotiate anything, Herb Cohen
3. Managing Sales Leads, Crocker and Obermayer, American Marketing Association

Semester I		116 - MS Excel
2 Credits	LTP: 0:3:1	Generic Elective – Institute Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO116.1	REMEMBERING	SELECT appropriate menus and functions of MS Excel to Create, Format, Import, Merge, Save, Print Spreadsheets & Charts using business data.
CO116.2	UNDERSTANDING	SHOW how to do basic troubleshooting and fix mistakes most people make when working with spreadsheets.
CO116.3	APPLYING	USE various functions of MS Excel, Execute pivot table analysis, common (and powerful functions), and different types of lookups (vlookup, hlookup, and index/match).
CO116.4	ANALYSING	ILLUSTRATE the use of the most commonly used data-manipulation commands in MS Excel.
CO116.5	EVALUATING	DERIVE insights from multiple data sources in MS EXCEL and work with it to answer relevant business questions.
CO116.6	CREATING	CREATE standard Excel Templates for routine business data management and analysis activities.

1. Introduction to Spreadsheets - Understanding Microsoft Excel, Excel Workbook Windows, Basic Spreadsheet Skills, Excel Help System, Opening and Closing Workbooks, Understanding Workbook File Formats, Creating New Workbooks, Selecting Cells, Auto Sum and Auto Fill Function, Cell Referencing and Request, Formatting Cells, Formatting Numbers, Placing Cell Alignment, Cell, Rows and Columns, Understanding Worksheets, Editing, Copying and Moving Cells, Page Layouts in Excel, Proofing Workbooks, Basic Options, Ribbons and Toolbar. **(4)**

2. Defining Names in Excel, Sorting Data, Using Excel Tables, Filtering Data in Excel, Understand Charts, Chart Design Options and Tools, Chart Format Tools, Combo Charts, Functions within Excel, Understanding Date Function, Information Functions, Logical Functions, Find and Replace, Headers and Footers, Adding Comments, Conditional Formatting. **(5)**

3. Using Text to Columns, The Paste Special Function, Data Validation, Subtotals and Grouping, Consolidating Data, Scenario Analysis, Data Tables in Scenario Analysis, What-if Analysis, Mats and Trig Functions, Text Functions in Excel, Using Lookup Functions, Vlookups, HLookups, Match, Using Statistical Functions, Database Functions, Financial Functions, Formula Auditing and Error Tracing, Hyperlinks in Excel, Linking Data, Understanding Pivot Tables, Using Pivot Charts, Workbook Properties, Protecting and Sharing Worksheets, Data Encrypting and Finalising Workbooks, Understanding Macros, Custom Number Formats in Excel, Using Custom Lists, Working with Templates, Tracking Changes in Excel, Merging and Compare Excel Workbooks. **(7)**

4. Using Pivot tables – Slicers -Report Filters for basic analytics, Contact Management and Marketing With Excel, Managing Customers, Vendors And Employees, Gaining Product And Service Insights, Sales reports using Excel, Supervising Sales With Excel, Preparing Invoices, Assessing Account Aging, Analyzing Demographics, Creating Scheduling And Marketing Calendars, Creating Standard Excel Templates for routine business data management and analysis activities. **(7)**

5. Managing Money With Excel, Building & Tracking Budgets, Planning And Tracking Loans, Keeping Account Registers, Creating Formulas for Financial Applications, PV, PMT, NPER, RATE, Creating Balance Sheet, Investment Calculations, Depreciation calculations, Lab based Evaluation, Gauging Business Status with Excel, Configuring Cash Flow Statements, Resolving Business Ratios, Creating Standard Excel Templates for routine business data management and analysis activities. **(7)**

Note:

- The entire course should be delivered in the computer lab in an application oriented manner.
- Business Applications should be stressed rather than merely teaching Excel as a software.

Suggested Text Books:

- Excel 2016 Bible, John Walkenbach, John Wiley & Sons
- Excel: Formulas & Functions, Robert Dinwiddie
- Excel 2007 for Dummies by Greg Harvey
- New Perspectives on Microsoft Office Excel 2007
- Microsoft Excel 2016 Step by Step, Curtis Frye

Semester I		117 - Business Systems and Procedures
2 Credits	LTP: 0:3:1	Generic Elective – Institute Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO117.1	REMEMBERING	TABULATE the key elements of a typical business system and related work flow procedures.
CO117.2	UNDERSTANDING	EXPLAIN a business system and related procedures.
CO117.3	APPLYING	PREDICT the fail points / bottle necks in a typical business process.
CO117.4	ANALYSING	BREAK DOWN a business system into simpler components and explain the inter-relationships.
CO117.5	EVALUATING	DEVELOP a process based thinking approach.
CO117.6	CREATING	CREATE standard operating procedures and flow charts / other visual representations for typical business systems and processes.

1. **Business Systems and Procedures:** Concept and need - Characteristics of a good procedure. Writing a Standard Operating Procedure (SOP)– Procedure Identification - Information Gathering–Interviewing – Analysis – Writing – Implementation – Review- Identifying Fail Points - Fine-tuning. Process Mapping Tools – Aid Memoir – Flowchart – Swim Lane Diagrams – Flow Charting Software – Using MS Word and Excel for Flowcharting - Case Studies. Re-engineering information flow and paper flow – Process Mapping for Current and Future State Map.
2. **Systems Study:** Process Mapping, Improvement and Writing SOP's for an entire range of activities for a typical business process in a manufacturing/ service organization. Students should visit appropriate organizations to study the real life processes.
3. Detailed study of atleast **FIVE** Systems and underlying Procedures, such as: (list is illustrative only)
 - a) Attendance Recording System in a manufacturing / service organization.
 - b) Employee scheduling in a retail mall.
 - c) Facilities management and scheduling system in automobile workshop.
 - d) Inventory Management
 - e) Just in Time Inventory System in a manufacturing / service organization.
 - f) Kitchen Order Ticket (KOT) System in a Restaurant.
 - g) KYC verification system in a mutual fund house.
 - h) Loan approval system in a cooperative bank.
 - i) Maintenance system in a facility.
 - j) On-boarding of new employees in a manufacturing / service organization.
 - k) Payroll Management
 - l) Performance Appraisal system in a manufacturing / service organization.
 - m) Point of sale (POS) system in an organized retail store.
 - n) Purchase Order System in a manufacturing / service organization.
 - o) Quality Audit system
 - p) Receivables Management
 - q) Stock Taking system in a library.
 - r) Warehouse management system.
4. Presentation of individual/group projects

Suggested Text Book:

1. Business Process Management – A Rigorous Approach, Martyn A Ould , British Computer Society, First South Asia Edition.

Semester I		118 - Managing Innovation
2 Credits	LTP: 0:3:1	Generic Elective – Institute Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO118.1	REMEMBERING	DESCRIBE the key ideas relevant to innovation, intellectual property, business models
CO118.2	UNDERSTANDING	INTERPRET the various theories of innovation and EXPLAIN with examples the types of innovation.
CO118.3	APPLYING	EXPERIMENT WITH innovation as a systematic process and generate innovative ideas for new products and services.
CO118.4	ANALYSING	DISSECT contemporary start-up businesses for their business models, extent of innovation, success and failure.
CO118.5	EVALUATING	CREATE an inventory of product and process innovations for daily use consumer products and routine business processes in a typical organization.
CO118.6	CREATING	CREATE a potential list of innovation needs for India in the local, regional and national context and ASSESS the likelihood of constructing a business model around these needs in the current local, regional and national context.

6. Basics of Innovation: Concept of Innovation. Invention and Creativity - Role and relationship with innovation, Product innovation and process innovation, Radical and incremental innovation, Technological innovation, commercial or organizational Innovation, Characteristics of innovation in different sectors , Innovation in Indian context, Innovation and Creativity, Jugad and innovation, Innovation in Current Environment- local, regional and national context. **(4)**

7. Economics and Management of Innovation: Schumpeter and creative destruction, The evolutionary theory of Nelson and Winter, The model of the dynamic capabilities of David Teece, Porter and competitive advantages, The value chain, Drucker and the systematic innovation, Innovations diffusion, Speed, Adoption. Innovation and Knowledge, Tacit and explicit knowledge, Knowledge as a public good. **(5)**

8. Models of Innovation – Static Models: Incremental versus Radical Innovation, Abernathy –Clark Model, Henderson – Clark Model, Disruptive Technological Change Model, Innovation Value – Added Chain, Strategic Leadership View, Familiarity Matrix, Imitability & Complementary Assets – Teece Model. Dynamic Models: Utterback – Abernathy Model, Tushman – Rosenkopf technology Life Cycle Model, Foster’s S Curve. **(7)**

9. Instruments for Innovation: Challenges of Innovation, Innovation as a systematic practice, Steps of Innovation Management, Learning Cycle, The roles of the innovator, Functional Sources of Innovation – Internal Value Chain, Spillovers from Competitors, Suppliers, Customers and Complimentary Innovators, The generation of ideas: brainstorming, Creativity, Divergent V/s Convergent Thinking, Design Thinking, Blue Ocean Strategy. Experimentation in Innovation Management, Technology Innovation Process, Idea Championship, Participation for Innovation, Co-creation for Innovation, Screening the innovative ideas, Proto typing to Incubation. **(7)**

10. Management and Marketing of Innovation: Innovation Management Planning, Technology Forecasting, Innovation Sustainable Conditions, Management of Innovation, Concept of IPR. Creation of IPR, Types of IPR, Patents and Copyrights, Patents in India. **Business Models:** What is a Business Model? The evolution of the business model, The Business Model Canvas, Business Models and value proposition, Business Model Failure: Reasons and Remedies, Incubators: Business Vs Technology, Future markets and Innovation needs for India. **(7)**

Suggested Text Books:

1. Innovation Management, Allan Afuah, Oxford Indian Edition.
2. Innovation Management, Shlomo Maital and D V R Seshadri, Response Books, Sage Publications, New Delhi.
3. Innovation: the attacker's advantage, Foster, Richard N., London, Macmillan.
4. Adair on Creativity and Innovation, Edited by Neil Thomas, Viva Books
5. Innovating at the Edge – How organizations Evolve and Embed Innovation Capability, Tim Jones, Butterworth-Hienemann, South Asian Edition.
6. Managing Creativity & innovation, Harvard Business Essentials, Harvard Business School Press

Suggested Reference Books:

1. The Innovator’s ToolKit , Harvard Business Press.
2. Fastrack to Success Innovation , Andy Bruce and David Birchall, Prentice Hall - Financial Times.
3. Getting to Innovation, Arthur B VanGundy, PHI – Eastern Economy Edition
4. Blue Ocean Strategy, Kim & Mauborgne

Semester I		119 - Foreign Language I
2 Credits	LTP: 0:3:1	Generic Elective – Institute Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO119.1	REMEMBERING	RECALL and SPELL simple words in the foreign language
CO119.2	UNDERSTANDING	TRANSLATE simple sentences from English to the foreign language and vice-versa.
CO119.3	APPLYING	CONSTRUCT a dialogue, in the foreign language, for basic human interactions in a social context.
CO119.4	ANALYSING	TAKE PART IN an interaction in a non-business setting using the foreign language.
CO119.5	EVALUATING	INTERPRET a short write up written in the foreign language.

- Salutations:** (a) To greet the people and say Good afternoon, Good Evening, Goodbye, ask name and say your name, seek clarification and help, numbers from 1 to 10 (b) To say where you live. Describe your house and members of your family. Weights and Measures, length & breadth, use of decimal system, area and volume. Cardinal numbers & Ordinal Numbers. (c) Ask and give personal information, Nationality, profession and language, Numbers from 11 to 50. To ask time by clock and by span, days of the week, months of the year. (6)
- Conversation Skills:** (a) To ask and express interests, Preferences; likes and dislikes; to invite, to accept the invitation or to politely decline the invitation; hobbies and how to spend your leisure. (b) To talk about the weather; to talk about the daily personal routine and related activities. Seasons & holidays in France/Germany/Japan. (c) To talk about clothing - size, colour, material. Purchase at a super market, modes of payment. To name and explain human body to express common bodily ailments (fever, headache etc.) (6)
- Geographical Description:** (a) Country, location on the world map, borders and neighboring countries, ports and industrial towns. (b) Information and clarification of places. Asking for directions to the public places. Modes of Transport. Numbers 51 to 100 and 1000, 10,00,000 etc. (6)
- Social:** (a) Visit to a restaurant, to express agreement/disagreement; to ask for price/quantity. (b) To talk about/express future actions, to plan a business trip with related requirements: hotel, tickets, car, Rent a car, places to visit, traffic signs etc. Documents required like Passport, International Driving license, Insurance cover etc. (6)
- Business:** (a) To ask about personal past events, to narrate personal experience, to comprehend difference between letters like Personal/Business Letters, telegram & e- mail; formats of Letter head and e mail. (b) Vocabulary relating to the Transactions at the Post office, Bank, Insurance Company – personal, health, accident, marine, equivalent terms of transaction – FOB, C.I.F, F.A.S, payment through Letter of credit. (6)

Note: Institute may offer any one of the following foreign languages to the students: SPANISH / FRENCH/ GERMAN/ JAPANESE / CHINESE

Suggested Text Books:

Relevant Standard Text Books, Videos, Audio CDs.

Semester II		213 - Written Analysis and Communication Lab
2 Credits	LTP: 0:3:1	Generic Elective – Institute Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO213.1	REMEMBERING	DESCRIBE stages in a typical communication cycle and the barriers to effective communication.
CO213.2	UNDERSTANDING	SUMMARIZE long essays and reports into précis and executive summaries.
CO213.3	APPLYING	USE Dictionary and Thesaurus to draft and edit a variety of business written communication.
CO213.4	ANALYSING	EXAMINE sample internal communications in a business environment for potential refinements.
CO213.5	EVALUATING	COMPOSE variety of letters, notices, memos and circulars.

- Written Communication:** Different types of communication like letters, memos, reports, fax, email, presentations and multimedia, choosing the means of communication, stages in communication cycle, Barriers to effective communication, communication systems. (5)
- Writing Techniques:** Rules of good writing, adaptation and selection of words, masculine words, writing with style- choosing words with right strength and vigor, using a thesaurus, writing effective sentences, developing logical paragraphs, Précis writing, Developing coherent paragraphs, overall tone, drafting, editing and finalizing the business

letters. Planning the persuasive message, common types of persuasive requests, principles of persuasive communication. Reformulating and summarizing - What is a summary? Using synonyms & antonyms, reducing phrases, guidelines for writing summaries, business summaries Comprehension: using a dictionary, grammatical precision, (phonetics), contextual clues, guidelines for comprehension. **(7)**

3. **Recruitment and employment correspondence:** Application letter, curriculum vitae, interview, references, offer of employment, job description, letter of acceptance, letter of resignation, writing routine and persuasive letters. **(6)**

4. **Internal Communications:** Memoranda, meetings - agenda and minutes, Writing memos, circulars, notices and emails. Positive and negative messages such as Letter of Appreciation, Letter of Congratulations, Warning Letter, Show Case Notice. Writing Follow up letters and reminders, Writing Sales letters, collection letters, Poster Making. Report writing - What is a report , Objectives of report, types of report, Report Planning, Types of Reports, Process, Structure and Layout, planning, Nature of Headings, Ordering of Points, Logical Sequencing, Graphs, Charts, Writing an Executive Summary, List of Illustration, Technique of writing a report, characteristics of business reports. **(6)**

5. **External Communications:** Public notices, invitations to tender bid, auction, notices, etc. Writing business proposals, Preparing Press Release and Press Notes. **(6)**

Note:

1. The entire course should be delivered in a workshop and application oriented manner. It is expected that not more than 10 to 15% of the time should be devoted to the theoretical aspect.
2. Workbooks should be prepared that comprehensively cover major situations of managerial communication and should be handed over to the students right at the beginning of the course.
3. Students should be asked to submit the completed workbooks at the end of the term.

Suggested Text Books:

1. Business Communication Today, Bovee C L et. al., Pearson Education
2. Business Communication, P.D. Chaturvedi, Pearson Education
3. Business Communication, T N Chhabra, Bhanu Ranjan, Sun India
4. Verbal and Non-Verbal Reasoning, Prakash, P, Macmillan India Ltd., New Delhi
5. Objective English, Thorpe, E, and Thorpe, S, Pearson Education, New Delhi

Suggested Reference Books:

1. Communication Skills for Effective Management, Hargie et. al., Palgrave
2. Communication for Business, Tayler Shinley, Pearson Education
3. Technical Communication, Anderson, P.V, Thomson Wadsworth, New Delhi
4. The Oxford Guide to Writing and Speaking, John Seely, Oxford University Press, New Delhi
5. Dictionary of Common Errors, Turton, N.D and Heaton, J.B, Addison Wesley Longman Ltd.

Semester II		214 - Industry Analysis - Desk Research
2 Credits	LTP: 0:3:1	Generic Elective – Institute Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO214.1	REMEMBERING	DESCRIBE the key characteristics of the players in an industry.
CO214.2	UNDERSTANDING	SUMMARIZE the management ethos and philosophy of the players in the industry.
CO214.3	APPLYING	DEMONSTRATE an understanding of the regulatory forces acting on the industry.
CO214.4	ANALYSING	COMPARE and CONTRAST, using tables and charts, the market and financial performance of the players in an industry.
CO214.5	EVALUATING	ASSESS the impact of recent developments on the industry and its key players.
CO214.6	CREATING	PREDICT the future trajectory of the evolution of the industry in the immediate future (1 to 3 years).

1. **Industry Analysis – the Basics:** Nature of the Industry, Players in the industry, Nature of competition, Market shares of top 5 & bottom 5 players, Possible Classification of players into Leaders, Challengers, Followers, Nichers, Positioning & Differentiation strategies of key players. Branding strategies, Pricing Policies, Cartelization if any and comments thereon, Capacity analysis – total capacity of the industry and break up capacity amongst key players, Current Capacity Utilization rates, Planned future capacity additions, Geographical spread of plants/facilities/capacities (Domestics as well as Global), Demand Supply balance in the industry – at global, national and regional level, Key factors affecting demand, Key supply side constraints, Professional Trade bodies of the Industry, Business

Functions carried out Online by the key players. Online presence of the players, Incremental Innovations in the industry, Disruptive Innovations in the industry. (5)

2. **Promoters & Management Ethos:** Background of promoter groups of top 5 and bottom 5 players in the industry, Management ethos and philosophy, Brief profiles of CMDs, CEOs, and key top management personnel with their career highlights, Detailed profile of one distinguished top management personnel each from any two players in the Industry, CSR policy, Corporate Governance Initiatives, Initiatives towards social inclusion, Initiatives towards environment conservation. (5)

3. **External Environment:** Controlling ministry and / or regulator if any for the Industry, Regulatory Policies at the state, national and global level and their impact on the industry as a whole with analysis of impact on top 5 players and bottom 5 players, Key National and Global issues affecting the industry, Key initiatives by the Government to promote the industry, Environmental issues, CSR initiatives, Regulatory actions against the players for e.g. Action by SEBI, Competition Commission of India, MTRP Commission, FDA, etc. against irregularities, legal violations if any. (5)

4. **Financials:** Profitability, Revenues, Margins of top 5 & bottom 5 players over the last 5 years and trends/changes therein, Sick players if any and their turnaround strategies, if any, Key factors contributing to costs, Ratio analysis of financial data for last 5 years for top 5 and bottom 5 companies in the industry. (5)

5. **Recent Developments:** Impact of key relevant provisions of the latest Fiscal policy on the industry and various players therein, Analysis of Key relevant provisions of latest Exim Policy in case of industries that are focused on Global Markets for exports or industries that have significant import components, Key Alliances in the past 5 years and their performance & impact on other players in the industry, Mergers & Acquisitions, if any. Technological developments, Labour unrest if any – reasons thereof and impact on the particular player and the industry as a whole, emerging first generation entrepreneurs, if any, in the industry, Corporate wars & feuds in the industry, if any. (5)

Note:

1. Students should work in groups of 3 to 5 each under the guidance of a faculty.
2. Students shall carry out an indepth study of any TWO industries of their choice.
3. Industries selected should be distinct from each other.
4. Students shall submit a structured detailed report.

Suggested Text Books:

1. No text books are prescribed.
2. The course has to be taught using the company annual reports and other publications, company website, social media feeds, business newspapers and business data bases such as ACE equity, CRISIL database, etc.

Semester II		215 – Entrepreneurship Lab
2 Credits	LTP: 0:3:1	Generic Elective – Institute Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO215.1	REMEMBERING	IDENTIFY a basket of potential business opportunities in the local, regional or national context.
CO215.2	UNDERSTANDING	COMPARE and CONTRAST the shortlisted business opportunities to SELECT the most suitable / promising opportunity.
CO215.3	APPLYING	DEVELOP a business model around the shortlisted business opportunity.
CO215.4	ANALYSING	FORMULATE the organization structure for the proposed start up
CO215.5	EVALUATING	EVALUATE the market potential and ESTIMATE the financing requirements for the initial 1 to 3 years after launch.
CO215.6	CREATING	CREATE a proposal for funding the start up.

This course provides a hands-on experience to the students to convert and apply theoretical and conceptual knowledge about entrepreneurship into practical entrepreneurship. During the course, students shall identify and evaluate a new business opportunity (which may be supplied by an entrepreneur or innovator in the nearby region.)

Students shall work in a group, of not more than 5 students, on a real-life business case.

Scope of the work expected:

1. Business Model Designing
2. Business Plan Designing
3. Financial Planning
4. Prototype Making
5. Test Marketing
6. Planning Commercial Launch.

Suggested Text Books:

1. New Venture Management: The Entrepreneur's Roadmap (Entrepreneurship Series), Donald F. Kuratko and Jeffrey S. Hornsby, Pearson
2. The Manual for Indian Start-ups: Tools to Start and Scale-up Your New Venture, Vijaya Kumar Ivaturi, Meena Ganesh, Penguin Random House India.
3. Managing New Ventures, Anjan Raichoudhuri, Prentice-Hall of India Pvt.Ltd
4. Develop Your Idea!: Get Off to a Flying Start With Your Startup. Guided Exercises, Templates & Resources for Exploring New Business Ventures, K. N. Kukoyi
5. Managing Small Business by Longenecker, Moore, Petty and Palich, Cengage Learning, India Edition.
6. Entrepreneurship: New Venture Creation by David H. Holt
7. The Dynamics of Entrepreneurial Development & Management by Desai, Vasant , Himalaya Publishing House, Delhi
8. Entrepreneurship and Small Business Management by Siropolis
9. Lead like an Entrepreneur by Neal Thornberry

Suggested Reference Books:

1. Fundamentals of Entrepreneurship, Nandan H, PHI
2. Cases in Entrepreneurship by Morse and Mitchell, Sage South Asia Edition.
3. Entrepreneurship – Indian Cases on Change Agents by K Ramchandran, TMGH.
4. Entrepreneurship – The engine of growth, edited by Mark Rice and Timothy Habbershon, Published by Praeger Perspectives.
5. Entrepreneurship: Theory, Process and Practice by Kuratko, D.F. & Hodgetts, R.M. Thomson Press.
6. Entrepreneurship Development: Small Business Enterprises by Charantimath, P. , Pearson.
7. A Guide to Entrepreneurship by David, Otes , Jaico Books Publishing House, Delhi.
8. Indian Entrepreneurial Culture by A Gupta , New Age International.
9. Make The Move: Demystifying Entrepreneurship by Ishan Gupta, Rajat Khare

Semester II		216 - SPSS
2 Credits	LTP: 0:3:1	Generic Elective – Institute Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO216.1	REMEMBERING	IDENTIFY the key menus of SPSS and DESCRIBE their functionality.
CO216.2	UNDERSTANDING	EXPLAIN the main features of SPSS
CO216.3	APPLYING	MAKE USE OF various tools to manage data, describe data and display graphical output using SPSS.
CO216.4	ANALYSING	ANALYSE data using various statistical tests of SPSS
CO216.5	EVALUATING	INTERPRET and EXPLAIN the outputs from SPSS
CO216.6	CREATE	DESIGN, DEVELOP and TEST advanced multivariate models using SPSS.

1. **Overview:** SPSS Environment, Introduction to various menus, Data file, Output file, Frequently –used dialog boxes, Editing output, Printing results. Creating and editing a data file – Variable and data view, Value Labels.
2. **Managing Data:** Listing cases, replacing missing values, computing new variables, recording variables, exploring data, selecting cases, sorting cases, merging files, splitting files, Visual Binning. **Frequencies:** Frequencies, bar charts, histograms, percentiles. **Descriptive Statistics:** Measures of central tendency, variability, deviation from normality, size and stability. Cross Tabulation and chi-square analyses, The means Procedure. **Graphs:** Creating and editing graphs and charts
3. **Bivariate Correlation:** Bivariate Correlation, Partial Correlations and the correlation matrix. **The T-test Procedure:** Independent –samples, paired samples, and one sample tests. **Non Parametric Tests:** ChiSquareTest, 1 sample test, 2 independent samples test, k independent samples, 2 related samples test, k related samples.
4. **One Way ANOVA Procedure:** One way analysis of variance, General Linear model: Two –way analysis of variance, General Linear model: three –way analysis of variance and the influence of covariates
5. **Advanced Tools:** Simple Linear Regression , Multiple regression analysis. Multidimensional scaling, Reliability Analysis, Factor analysis, Cluster analysis.

Suggested Text Books:

1. Discovering Statistics Using SPSS, by Andy Field A, SAGE
2. How to Use SPSS: A Step-By-Step Guide to Analysis and Interpretation by Brian C. Cronk

Semester II		217 - Foreign Language II
2 Credits	LTP: 0:3:1	Generic Elective – Institute Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO217.1	REMEMBERING	LISTEN to simple audio-visual recordings in the foreign language.
CO217.2	UNDERSTANDING	TRANSLATE simple letters from English to the foreign language and vice-versa.
CO217.3	APPLYING	CONSTRUCT a business email, in the foreign language.
CO217.4	ANALYSING	TAKE PART IN an interaction in a business setting using the foreign language.
CO217.5	EVALUATING	COMPOSE a covering letter and resume in the foreign language.

1. **Listening:** Understand Simple Questions and Instructions. **Reading:** Understand Single Words and Sentences but also Signposts, Signs and Posters. **Speaking:** Provide Short Information about the Job and the Person. **Writing:** Fill in Forms and Provide Information About Name, Address, Nationality etc. **(6)**
2. **Listening:** Understand Information about the Person and the Work. **Reading:** Understand Simple Letters, Appointments, Invitations and Information in Short Texts. **Speaking:** Answer Simple Questions About One's Working Field. **Writing:** Write Faxes and e-mails. **(6)**
3. **Listening:** Understand Standard Information Related to the Working Field. **Reading:** Understand Standard Letters and Texts about Working Processes and Product Descriptions. **Speaking:** Provide Information about the Job, the Departments, the Company, the Products and Processes in a Conversation or on the Phone. **Writing:** Answer Standard Inquiries, Make Quotations, Write Short Texts with a Familiar Content, Possibly Give Some Explanation and Answer Simple Questions. **(6)**
4. **Listening:** Understand Complex Information Related to the Working Field in Meetings, Discussions and at Presentations. **Reading:** Understand Reports and Contracts with a Company-related Content. **Speaking:** Describe and Explain Work Processes and Projects. Report on Meetings and Presentations. Explain Concepts and Clarify Misunderstandings. **Writing:** Write Formal Standard Letters and Texts about One's Field of Expertise. Explain a Graphic and Reflect the Content. **(6)**
5. **Grammar:** Future tense, imperfect tense, degrees of comparison, imperative mood. Script, Letters of alphabet, accents, sounds of groups of letters, punctuation marks, articles, nouns, sing./Pl , genders; mas. /fem. Structure of sentences & types like affirmative, negative interrogative & negative interrogative, Verbs: classes of verbs and conjugation patterns, Pronominal verbs; Present tense, The idea of auxiliary verb; prepositions; pronouns-subject, interrogative, relative, possessive, emphatic ; adjectives, adverbs. **(6)**

Note: Institute may offer any one of the following foreign languages to the students: SPANISH / FRENCH/ GERMAN/ JAPANESE / CHINESE

Suggested Text Books:

Relevant Standard Text Books, Videos, Audio CDs

Foundation Courses (Elective) - Semester I & II

Semester I		FOU – 001: Elementary English
1 Credit	LTP: 0:2:0	Foundation Course (Elective)

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO-FOU001.1	REMEMBERING	LABEL the different parts of a sentence, correctly SPELL and PRONOUNCE the words in common usage and effectively LISTEN to short AV material (English).
CO-FOU 001.2	UNDERSTANDING	PARAPHRASE published written and audio visual content (English) in own words.
CO-FOU 001.3	APPLYING	CONSTRUCT short paragraphs and essays (English) for a specified task, to elicit, to select, to describe, to summarize information.
CO-FOU001.4	ANALYSING	TAKE PART IN conversations using general, social and professional (English) language.
CO-FOU001.5	EVALUATING	CHECK written and audio visual content (English) for grammatical correctness.
CO-FOU001.6	CREATING	SUBSTITUTE right words / terms / phrases in a compiled text.

- Fundamental grammatical structures and functions** - sentence types, tenses, voice, parts of speech, word order, expressing possibility, obligation, necessity, prohibition, criticism; expressing preferences, making assumptions; asking for/ refusing/giving permission; making offers, suggestions, punctuation, etc. **(3)**
- Building fundamental vocabulary** - to fulfill the above mentioned functions in roles, topics and discussions, synonyms, antonyms, homonyms, homophones, using dictionary, using thesaurus. **(3)**
- Listening** – short AVs in English, understanding the gist, the main points, look for detail or specific information, deduce the meaning. **(3)**
- Reading material** - reading various common place publications, using different strategies for different reading purposes, identifying the main points in a text, looking for detail, locating specific information in a text, understanding a text structure, right pronunciation, etc. **(3)**
- Conversation on different topics** - people, jobs, places to visit, festivals/celebrations, eating habits, attire, current affairs – popular personalities, disasters/accidents, politics, technology, sports/hobbies, environment, education, entertainment, transport, crime, etc. **(3)**

Suggested Text Books:

- English Grammar and Composition, Wren & Martin, S. Chand Publishing
- Word Power Made Easy, Norman Lewis

Semester I		FOU – 002: Elementary Mathematics and Statistics
1 Credit	LTP: 0:2:0	Foundation Course (Elective)

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO-FOU002.1	REMEMBERING	MEMORIZE and REPRODUCE all basic formulae covered in the syllabus.
CO-FOU002.2	UNDERSTANDING	EXPRESS numbers in various forms such as fractions, percentages, equivalent simplest fractions.
CO-FOU002.3	APPLYING	CALCULATE Percentages, Profit & Loss, Simple & Compound Interest, frequency, cumulative frequency, basic areas and basic volumes.
CO-FOU002.4	ANALYSING	ILLUSTRATE relationships using direct and inverse proportion, simple graphs, linear and quadratic equations.
CO-FOU002.5	EVALUATING	INTERPRET basic statistical data, graphs, and venn diagrams.
CO-FOU002.6	CREATING	CREATING and SOLVING simple simultaneous equations.

- Numbers:** Integers and fractions, squares, cubes, square roots and cube roots by prime factorization, negative numbers; Examples of very large and very small numbers such as million/billion/trillion, positive, negative, zero and fractional indices, laws of indices. **(1)**
- Preliminary Mathematics:** HCF & LCM, Ratio & Proportion, Problems based on Ages. **(2)**
- Ratio, rate and proportion:** Ratios involving rational numbers, writing a ratio in its simplest form, average rate, direct and inverse proportion, problems involving ratio, rate and proportion **(1)**

4. **Fractions & Percentages** : Expressing one quantity as a percentage of another, comparing two quantities by percentage, percentages greater than 100%, increasing/decreasing a quantity by a given percentage, reverse percentages, problems involving percentages **(1)**
5. **Mathematical Operations for Business:** Percentage, Profit & Loss, Simple & Compound Interest. **(1)**
6. **Time and Number related Mathematical operations:** Time & Work, Time, Speed & Distance, Number System, Permutation, and Series. **(2)**
7. **Basic Statistics:** Classification and tabulation of data, presentation of data, graphical presentation of data by frequency curve, frequency polygon, ogives, histogram. **(2)**
8. **Set Theory:** Basic concepts, Venn diagrams, interpretation. **(2)**
9. **Trigonometry** : Basic Trigonometry, Area and Volume. **(1)**
10. **Equations:** Simultaneous Equations, Quadratic Equations. **(2)**

References:

1. Rajagopalan and Sattanathan, Business Mathematics
2. Praveen, R. V., Quantitative Aptitude and Reasoning, PHI Learning
3. Goon Gupta and Das Gupta, Fundamentals of Statistics, Vol. 1, The World Press Pvt. Ltd., Kolkata.
4. Sharma, Arun, How to prepare for Quantitative Aptitude for the CAT, Tata McGraw Hill

Semester I		FOU – 003: Elementary Business Economics
1 Credit	LTP: 0:2:0	Foundation Course (Elective)

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO-FOU003.1	REMEMBERING	ENUMERATE the basic terms covered in the syllabus.
CO-FOU003.2	UNDERSTANDING	INTERPRET the historical trends in key economic data from a managerial and business perspective.
CO-FOU003.3	APPLYING	MAKE USE OF key Government and Non-Government economic publications to gather insights from a managerial and business perspective.
CO-FOU003.4	ANALYSING	ILLUSTRATE broad inter-relationships between various economic parameters within the national context and global context.
CO-FOU003.5	EVALUATING	EXPLAIN the role and objectives of Monetary and Fiscal policy.
CO-FOU003.6	CREATING	HYPOTHESIZE the expected short term trends of key economic indices.

1. Concept of Economic Development, Concept of emerging, developed and developing economy, Concept of PPP **(1)**
2. Economic Map of the Globe, Economic map of India. **(1)**
3. Reserve Bank of India – composition, role, functions. **(1)**
4. Economic Survey of India - Role, Scope, Objectives, Sections, Key highlights of last Economic Survey. **(1)**
5. Union Budget - Role, Scope, Objectives, Sections, Key highlights of last Union Budget, Concept of Fiscal Deficit, Combined Fiscal Deficit. **(1)**
6. Monetary Policy – Concept, Frequency, MPC - Role, Scope, Objectives of Monetary Policy, Key highlights of last few Monetary Policy statements, impact – sentimental and material on economy. **(1)**
7. Key Economic Indicators – Inflation, IIP, GDP, CRR, Bank Rate, Exchange Rate, Unemployment rate, Ease of doing business index, etc. **(1)**
8. Inflation – Concept, CPI, WPI, Composition, Changes over time, Trends, Usage in policy making, Implications of high and low CPI, WPI. **(1)**
9. Exchange rates – Concept, USD – INR, Euro – INR, Yuan – INR, Renminbi – INR, Key trends and influencing factors. **(1)**
10. GDP – Composition, Trends. **(1)**
11. Key Stock Markets & Stock Indices – Sensex, Nifty, Sectoral Indices in India, Global Indices - European Indices, American Indices, Asian Indices. **(1)**
12. Commodity Markets – Crude, Precious Metals, Industrial Metals, Agro Commodities, MCX, NCDEX. **(1)**
13. Direct & Indirect Taxes – Concept of Direct Tax, Indirect Tax, Income Tax, Wealth Tax, GST. **(1)**
14. Key Sources of Data – Census, CSO, Niti Aayog, Different Ministries of Government of India, CRISIL, NCAER, Credit Rating Agencies. **(1)**
15. Introduction of G7, G 20, BRICS, ASEAN, SAARC, EuroZone, PIIGS, ADB, WB, etc. **(1)**

Suggested Text Books:

1. Indian Economy , Dutt R and Sundharam K.P.M, S .Chand, Delhi
2. Indian Economy, Agarwal A. N., Vikas Publishing House, Delhi
3. Indian Economy, Misra S.K. and Pury V.K., Himalaya Publishing House, New Delhi

Semester I		FOU – 004: Elementary Accounting
1 Credit	LTP: 0:2:0	Foundation Course (Elective)

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO-FOU004.1	REMEMBERING	DESCRIBE the basic accounting terminologies and concepts covered in the course syllabus.
CO-FOU004.2	UNDERSTANDING	EXPLAIN the concepts covered in the course syllabus.
CO-FOU004.3	APPLYING	APPLY concepts covered in the course syllabus to accurately do the required calculations.
CO-FOU004.4	APPLYING	DETERMINE the key elements of business transactions and complete their accounting.
CO-FOU004.5	EVALUATING	DESIGN and OPERATE the entire accounting process (from entry to Balance - Sheet) for any given transaction.

- Basic Concepts and Terminologies** –Business Transaction, Meaning and Scope of Book Keeping and Accountancy, Importance of Book Keeping and Accountancy, Basic Terminologies related to Book Keeping and Accountancy, Classification of Accounts, Principle of Double Entry and Golden Rules of Accounting. (3+1)
- Journal Entries** – Preparation of Journal and passing journal entries (2+1)
- Ledger Posting & Balancing** – Preparation of Ledger Accounts, Posting the journal entries in the ledger accounts, Ledger Accounts Balancing and Interpretation of Ledger Account Balances. (2+1)
- Trial Balance** – Preparation of Trial Balance and Importance of Trial Balance in Accounting Process. (1+1)
- Final Accounts of Sole Proprietor** –Trading Account, Profit & Loss Account and Balance Sheet without adjustments. (2+1)

Suggested Text Books:

- T.S. Grewal’s Double Entry Book Keeping
- Taxmann’s Fundamentals of Accounting (CA CPT), CA D.G. Sharma
- Book Keeping and Accountancy, Aina Pure and Aina Pure
- Managerial Accounting, Dr. Mahesh Abale and Dr. Shriprakash Soni

Suggested Reference Books:

- Financial Accounting for Management: Shankarnarayanan, Ramanath- CENGAGE Learning
- Financial Accounting for Managers, Sanjay Dhmiya, Pearson Publications
- Accounting For Management, Jawahar Lal
- Accounting, Shukla Grewal

Semester I		FOU – 005: Elementary Information Technology
1 Credit	LTP: 0:2:0	Foundation Course (Elective)

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO-FOU005.1	REMEMBERING	DESCRIBE various components of a computer, network.
CO-FOU005.2	UNDERSTANDING	EXPLAIN the characteristics and usage of various elements of a computer, a network and operating systems.
CO-FOU005.3	APPLYING	USE various input, output, memory and local network devices.
CO-FOU005.4	ANALYSING	TEST and do basic troubleshooting of a standalone desktop or desktop connected to a network.
CO-FOU005.5	EVALUATING	EXPLAIN basic terminology related to data and information.
CO-FOU005.6	CREATING	DISCUSS emerging trends in IT.

- Computer Basics:** Introduction, Evolution of Computers, Computer Generations, Classification of Computers, Computer Applications. Computer Organization, Memory and Storage - Basic Computer Organization (a) Input devices - keyboard, voice devices, scanner, MICR, OMR, Bar code reader, digital camera, etc. (b) Output devices - Visual Display Unit, printers, plotters, Audio Output, etc.(c) Memory or Storage Devices – Memory or Storage Unit - Physical Devices Used as Storage Cells, Random Access Memory, Read Only Memory, Secondary Storage, Compact Disk Read Only Memory, Flash Memory, Archival Storage, etc. (d) Central Processing Unit. Basic trouble shooting. Connecting a desktop, laptop to LCD, printer, etc. **(4)**
- Computer Software:** Introduction, System Software, Application Software, Software Installing and Uninstalling, Booting, Software Development Steps, Programming Languages - Classification of Programming Languages. Operating System - Introduction, Role and functions of Operating System, Working Knowledge of GUI

Based Operating System, Use of menus, tools and commands of windows operating system, File Handling and Management. **(4)**

3. **Computer Networks:** Overview of Computer Network, Types of computer networks (LAN, WAN and MAN), Network topologies, Components of computer networks (servers, workstations, network interface cards, hub, switches, cables, etc.) Internet and its Tools - Introduction, Internet Evolution, Basic Internet Terminology, Data over Internet, Modes of Data Transmission, Types of Networks, Types of Topologies, Protocols used in the Internet, Getting Connected to Internet Applications, Internet Applications, Computer Ethics. **(3)**

4. **Information Technology Basics:** Introduction, Data and Information, Types of Data, Need for Information Storage and Processing, **(2)**

5. **Emerging Trends in IT:** Introduction, Electronic Commerce, Electronic Data Interchange, Smart Cards, Mobile Communications, Internet Protocol TV. **(2)**

Suggested Text Books:

1. Computers Today, Basandra SK, Galgotia.
2. Fundamentals of Information Technology, Leon, Vikas
3. Information Technology: Inside and outside, Cyganski, Pearson
4. Computer Applications in Management, Kakkar DN, Goyal R, New Age
5. Information Technology for Management, B Muthukumar, Oxford University Press

Semester I		FOU – 006: Elementary Business Etiquette
1 Credit	LTP: 0:2:0	Foundation Course (Elective)

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO-FOU006.1	REMEMBERING	DEFINE terms and concepts used to describe appropriate business etiquette attitudes and behaviors.
CO-FOU006.2	UNDERSTANDING	EXPLAIN what is meant by business etiquette and how it impacts the workplace.
CO-FOU006.3	APPLYING	DEMONSTRATE appropriate behaviors within specific business situations.
CO-FOU006.4	ANALYSING	TAKE PART IN professional business meetings and real & virtual business conversations.
CO-FOU006.5	EVALUATING	DETERMINE the right attire for business, casual and multicultural events.
CO-FOU006.6	CREATING	PLAN a professional business meeting and a business meal.

1. **Professionalism at Work:** Making a good first impression, understanding the mechanics of human perception, being aware of elements in image building, developing a culture of excellence, basic understanding of acceptable attitudes and mannerisms at work, the role of Good Manners in Business? Disability Etiquette - Basic disability Etiquette practices, Courtesies for wheelchair users, Courtesies for blind or visually impaired, Courtesies for the deaf, People with speech impairments. Multi-cultural challenges, Multi-cultural etiquette, Cultural differences and their effect on business etiquette, Select Cultural Highlights **(5)**

2. **Body Language at Work:** Non verbal communication, the ‘smile’ factor, building posture, facial expressions and eye contact, gestures for effective communication. **(3)**

3. **Business Etiquette Basics:** Introduction to business etiquette - The ABCs of etiquette Meeting and greeting scenarios, Enduring Words, Making introductions and greeting people, Greeting Components, The protocol of shaking hands, Introductions, Introductory scenarios, Addressing individuals, Networking for business, Business card protocol, Managing your business voice, Speaking Diplomatically, Managing Question and Answer Sessions Effectively - Anticipatory Q & A, Dealing with hostile questions, Reframing principles, Case Studies and Practice, Cell phone Etiquette, Voice Mail Etiquette, Internet & email etiquette, Internet usage in the workplace, Email, Netiquette, Online chat, Online chat etiquette, Online chat etiquette guidelines. **(5)**

4. **Dining Etiquette:** Planning a meal, issuing invitations, How to proceed through a receiving line, seating guidelines, navigating a place setting, appropriate table manners. **(1)**

5. **Business Attire & Professionalism:** Dressing sense, selecting the right clothing for a business wardrobe, Business style and professional image, Dress code, Guidelines for appropriate business attire, Grooming for success, Guidelines for appropriate business attire, Multicultural dressing, Making-up basics. **(1)**

Suggested Text books:

1. The Essentials of Business Etiquette: How to Greet, Eat, and Tweet Your Way to Success, Barbara Pachter
2. Modern Manners: Tools to Take You to the Top, Dorothea Johnson and Liv Tyle
3. Business Etiquette: 101 Ways to Conduct Business with Charm and Savvy, Ann Sabath
4. Indian Business Etiquette, Raghu Palat, Jaico Publishing

5. Business Etiquette: A Guide for the Indian Professional, Shital Kakkar Mehra

Semester II		FOU – 007: Elementary MS Word
1 Credit	LTP: 0:2:0	Foundation Course (Elective)

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO-FOU007.1	REMEMBERING	SHOW basic menus of MS WORD on the screen and RECALL the functionality.
CO-FOU007.2	UNDERSTANDING	DEMONSTRATE the use of formatting, layout and printing tools of MS Word to create professional word documents.
CO-FOU007.3	APPLYING	APPLY the viewing, referencing tools of MS Word.
CO-FOU007.4	ANALYSING	ILLUSTRATE the use of reviewing tools for collaborative MS word documents.
CO-FOU007.5	EVALUATING	DESIGN and execute Mail merged documents.
CO-FOU007.6	CREATING	COMPILE a professional report using templates, Tables, Table of contents, referencing, headers, footers and page numbers.

1. Introduction to MS WORD, The Screen and its Elements, The Office Button, Quick Access, The View Buttons, Print Layout, Full Screen Reading, Web Layout, Outline , Draft, Zoom, The Status Bar, Creating a New Document, Starting on a New Blank Document, Templates, Writing and Simple Formatting - Simple formatting, Formatting with Styles, Customising Styles. **(3)**
2. Pictures and Graphics, Pictures, Insert a Picture from a File, Adjusting Picture Size, Positioning and Text Wrapping, Captions, Cross-References to Characters, Pictures and Headlines, Clip Art, SmartArt, Excel Charts, Create a New Excel Chart in Word, Insert a Chart from an Excel Project File, Tables Tools, Illustrations, Equations, Symbols. **(3)**
3. Tables of contents and other references - Create a table of contents, Edit a citation placeholder, Create a bibliography, Foot note & End Note, Captions & Index, Mail Merge – Preparation, Retrieving Merge Data, Complete the Merge. **(3)**
4. Page Layout, Margins, Adjusting the Margins, Page Setup, Setting Page Size, Orientation, Columns, Sections, Page Header and Footer, Tabs (tabulators), Page Numbers, Links, Page breaks and section breaks, Applying Multiple headers, Checking Spelling, grammar, and thesaurus. **(3)**
5. Collaboration - Protect your document with passwords, permission, and other restrictions, Tracking changes and comments - Turn track changes on or off, Review tracked changes and comments. **(3)**

Suggested Text Books:

1. Microsoft Word 2016 Step by Step, Joan Preppernau
2. Microsoft Word 2016 Introduction Quick Reference Guide - Windows Version (Cheat Sheet of Instructions, Tips and Shortcuts, Lamina

Semester II		FOU – 008: Elementary MS Powerpoint
1 Credit	LTP: 0:2:0	Foundation Course (Elective)

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO-FOU008.1	REMEMBERING	SHOW basic menus of MS Powerpoint on the screen and RECALL the functionality.
CO-FOU008.2	UNDERSTANDING	DEMONSTRATE the use slide management, slide layout and reviewing tools of MS Powerpoint to create professional presentations.
CO-FOU008.3	APPLYING	USE tables, charts, smart art, animation and references in a powerpoint presentation.
CO-FOU008.4	ANALYSING	ILLUSRATE the various modes of delivery of the final powerpoint presentation.
CO-FOU008.5	EVALUATING	DEVELOP custom themes and customize slide masters and layouts.
CO-FOU008.6	CREATING	COMPILE a professional powerpoint presentation using templates, tables, images, hyperlinks, animation, templates, headers, footers and slide numbers, etc.

1. **Get started with PowerPoint:** PowerPoint basics, Start PowerPoint, Work in the PowerPoint user interface, Create and manage presentations, Open and navigate presentations , Display different views of presentations, Change

the display of content, Display and edit presentation properties, Save and close presentations, Compatibility with earlier versions, Create and manage slides , Add and remove slides, Insert new slides , Copy and import slides and content, Hide and delete slides, Divide presentations into sections, Rearrange slides and sections, Apply themes, Change slide backgrounds. **(4)**

2. **Editing and Managing Text:** Insert and manage slide text, Enter and edit text, Insert nonstandard characters, Add supplementary text to slides, Insert equations, Add a slide footer, Move, copy, and delete text, Format text placeholders, Format characters and paragraphs, Apply WordArt text effects, Configure AutoCorrect options, Check spelling and choose the best wording, Find and replace text and fonts. **(5)**

3. **Tables, Shapes and Charts:** Present text in tables, Insert tables, Format tables, Modify table structure, Embed and link to Excel content, Insert and manage visual elements, Insert and manage simple graphics, Insert, move, resize, edit and format pictures, Draw and modify shapes, Draw and add text to shapes, Locate additional formatting commands, Move and modify shapes, Format shapes, Connect shapes, Capture and insert screen clippings, Create a photo album. Create and manage business graphics, Create diagrams, Sidebar: Picture diagrams Modify diagrams, Format diagrams, Create charts, Modify charts, Manage chart data, Modify the display of chart elements, Pie charts, Format charts, and Custom chart templates. **(6)**

4. **Animation:** Add sound and movement to slides Animate text and pictures on slides, Customize animation effects , Bookmark points of interest in media clips, Add audio content to slides, Add video content to slides, Compress media to decrease file size, Hyperlink to additional resources, Add and manage slide transitions. **(5)**

5. **Finalize presentations:** Create custom presentation elements, Create custom themes, Customize slide masters and layouts, Save custom presentation templates, Save and share presentations, Save presentations in other formats, Share presentations from PowerPoint, Restrict access by using passwords, Add and review comments, Coauthor presentations. Review presentations , Add notes, Configure slides for presentation or printing , Inspect and finalize presentations, Print presentations and handouts, Prepare and deliver presentations, Adapt presentations for different audiences, Rehearse a presentation and set slide timings, Prepare presentations for travel, Present slide shows, Start the slide show, Use the slide show tools. **(5)**

Suggested Text Books:

1. Microsoft PowerPoint 2016 Step by Step, Joan Lambert
2. Microsoft PowerPoint 2016 Made Easy: A Step-by-Step Guide for PC Users, Dr. Harold Lloyd Fisher Jr., Kymitra L. Fisher (Editor)
3. Exploring Microsoft PowerPoint 2016 Comprehensive , Mary Anne Poatsy, Rebecca Lawson, Cynthia Krebs, Robert T. Grauer

Semester II		FOU – 009: Data Interpretation and Logical Reasoning
1 Credit	LTP: 0:2:0	Foundation Course (Elective)

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO-FOU009.1	REMEMBERING	RECOGNIZE when additional information is needed to solve problems.
CO-FOU009.2	UNDERSTANDING	EXPRESS quantitative and non-quantitative data, associations and linkages in a logical format.
CO-FOU009.3	APPLYING	USE statistical information when reported in condensed form or as summary statistics to make informed decisions.
CO-FOU009.4	ANALYSING	DISSECT arguments, SEQUENCE relationships, EXAMINE assumptions, DETECT fallacies and INFERENCE from the same.
CO-FOU009.5	EVALUATING	ESTIMATE and CHECK answers to logical and data sufficiency problems in order to determine reasonableness, identify alternatives, and select correct options.
CO-FOU009.6	CREATING	DEVELOP and EVALUATE inferences and predictions based on the data and information provided.

Data Interpretation

1. Tables
2. Pie Charts
3. Caselets
4. Bars
5. Line Graphs
6. Data Sufficiency

Logical Reasoning

1. Blood Relations

2. Direction Sense
3. Puzzles
4. Data Arrangement, Seating Arrangement
5. Data Structures
6. Series
7. Coding-Decoding
8. Clocks and Calendars
9. Family Tree
10. Venn Diagram
11. Syllogism
12. Proposition, Assumptions
13. Statements
14. Binary Logic
15. Sets

Suggested Text Books:

1. How to Prepare for Data Interpretation, Arun Sharma, Tata Mc Graw Hill
2. Puzzles to Puzzle you, Shakuntala Devi
3. Quantitative Aptitude, Abhijeet Guha, Tata Mc Graw Hill
4. Quantitative Aptitude, Agarwal R S, S Chand
5. Data Interpretation & Data Sufficiency, Ananta Ashisha
6. The Great Book of Puzzles & Teasers, George J Summers
7. Magical Book Series: Data Interpretation, K. Kundan
8. A Modern Approach to Verbal Reasoning, R.S. Aggarwal

Semester II		FOU – 010: Verbal Ability & Reading Comprehension
1 Credit	LTP: 0:2:0	Foundation Course (Elective)

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO-FOU010.1	REMEMBERING	IDENTIFY parts of speech
CO-FOU010.2	UNDERSTANDING	SUMMARIZE a given text material in defined word limits.
CO-FOU010.3	APPLYING	MAKE USE OF foreign words in English Language, idioms and phrases.
CO-FOU010.4	ANALYSING	EXAMINE given text sentences and paragraphs for errors and correct them.
CO-FOU010.5	EVALUATING	SELECT the appropriate words in a given context.
CO-FOU010.6	CREATING	CONSTRUCT meaningful sentences and COMPOSE meaningful paragraphs from jumbled ones.

Verbal Ability and Reading Comprehension

1. Grammar, Parts of Speech, Articles. Nouns, Verbs, Adjectives, Pronouns, Conjunctions, Prepositions, Adverbs.
2. Clauses, Tenses, Subject & Verb Agreement, Question Tags
3. Analogies
4. Idioms & Phrases
5. Synonyms, Antonyms,
6. Homonyms, Homophones
7. One word substitution
8. Root words, origins of words, prefixes, suffixes,
9. Foreign language words used in English
10. Contextual usage, Different usage of same word
11. Spotting Errors, Error Correction
12. Fill in the blanks, Sentence correction, Sentence completion
13. Jumbled paragraphs, Para Completion and inference
14. Reading Comprehension
15. Verbal Logic, Verbal Reasoning, Syllogisms

Suggested Text Books:

1. How to Prepare for Verbal Ability and Reading Comprehension for CAT, Arun Sharma and Meenakshi Upadhyay/Arihant
2. 30 Days to a More Powerful Vocabulary, Wilfred Funk & Norman Lewis/ Simon & Schuster

3. How to Prepare for Verbal Ability and Reading Comprehension for the CAT, Sharma and Upadhyay
4. Puzzles to Puzzle you, Shakuntala Devi
5. A Modern Approach to Verbal Reasoning, R.S. Aggarwal
6. Competition Success Review

Semester II		FOU – 011: Quantitative Ability
1 Credit	LTP: 0:2:0	Foundation Course (Elective)

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO-FOU011.1	REMEMBERING	RECALL the formulas.
CO-FOU011.2	UNDERSTANDING	INTERPRET quantitative information and INFER from it.
CO-FOU011.3	APPLYING	DEMONSTRATE number sense, including dimensional analysis and conversions between fractions, decimals, and percentages.
CO-FOU011.4	ANALYSING	EXAMINE the validity and DETECT possible biases in arguments presented in quantitative forms.
CO-FOU011.5	EVALUATING	DETERMINE when approximations are appropriate and when exact calculations are necessary.
CO-FOU011.6	CREATING	FORMULATE the problem quantitatively and USE appropriate arithmetical, and/or statistical methods to SOLVE the problems.

Quantitative Aptitude

1. Geometry
2. Trigonometry
3. Mensuration
4. Ratios and Proportion
5. Number system
6. Work and time
7. HCF & LCM
8. Algebra
9. Profit & Loss
10. Quadratic and linear equations
11. Geometric Progression
12. Percentages
13. Averages
14. Partnership (Accounts)
15. Time-Speed-Distance
16. Surds and Indices
17. Inequalities
18. Logarithms

Suggested Text Books:

1. Shakuntala Devi, Puzzles to Puzzle you
2. Quantitative Aptitude, Abhijeet Guha, Tata Mc Graw Hill
3. Quantitative Aptitude, Agarwal R S, S Chand
4. Data Interpretation & Logical Reasoning, Gautam Puri
5. Logical Reasoning and Data Interpretation, Nishit K. Sinha
6. Data Interpretation & Data Sufficiency, Ananta Ashisha

**Subject Core (SC) Courses - Semester II
Specialization: Marketing Management**

Semester II		205MKT: Marketing Research
3 Credits	LTP: 2:1:1	Subject Core (SC) Course – Marketing Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO205MKT.1	REMEMBERING	DESCRIBE the key concepts involved in the Marketing Research.
CO205MKT.2	UNDERSTANDING	EXPLAIN various research designs, data sources, data collection methods, instruments, sampling methods and analytical tools used in Marketing Research.
CO205MKT.3	APPLYING	APPLY the concepts of marketing research in solving real-life marketing problems.
CO205MKT.4	ANALYSING	ANALYSE data and draw appropriate Inferences to address real-life marketing issues.
CO205MKT.5	EVALUATING	DESIGN a market research proposal for a real life marketing research problem and EVALUATE a market research proposal.
CO205MKT.6	CREATING	PLAN and UNDERTAKE qualitative or quantitative marketing research and demonstrate the ability to analyse data to resolve real-life marketing issues.

1. **Introduction to Marketing Research:** Definitions - Marketing Research, Market Research, Scope and Limitations of Marketing Research, Role of Information in Marketing Decisions, Value and Cost of Information, Marketing Information System and Marketing Research, Marketing Decision Support System, Threats to Marketing Research, Relationship between Marketing Research & Marketing, Organizing Marketing Research function, Evaluating utility of Marketing Research, Online Marketing Research, Recent Trends in Marketing Research, Marketing Research Industry in India. (5+2+2)
2. **Marketing Research Proposal:** The marketing research brief, The Marketing decision problem and marketing research problem, Defining the marketing research problem, developing the research approach, The decision maker & the environment, alternative courses of action, objectives of decision maker, consequences of alternative courses of action, Translating decision problem to research problem, The marketing research proposal (Background - basic problem/opportunity , Objectives , Research Design – Qualitative & Quantitative approaches, Data Requirements, Data collection methods, Data collection instruments, Population definition, Sample Plan, Sample size, Sampling Methodology, Statistical analysis, Cost Estimates, Time line, Appendices), Report Writing, Ethical Issues in Marketing Research – participant issues, sponsor issues, corporate espionage, code of ethics. (5+2+2)
3. **Advanced Analytical Tools:**
 - (a) **Conjoint Analysis:** Conceptual basis, procedure, type of data required, key decision, how to interpret output, applications to study trade off patterns of consumers as related to different levels of marketing mix elements (Question on interpretation of output is expected)
 - (b) **Factor Analysis:** Conceptual basis, type of data required, procedure, PCA, Interpreting factor matrix (factor loadings, communalities, Eigen value), determining number of factors using latent root criteria & scree test, interpreting & naming factors, applications in consumer behavior studies (interpretation of output is expected)
 - (c) **Cluster Analysis:** Conceptual basis, type of data required, procedure, clustering methods – single linkage rule, how to interpret output, applications related to psychographic & lifestyle market segmentation (interpretation of output is expected)
 - (d) **Multi- dimensional Scaling & Perceptual Mapping:** Conceptual basis, type of data required, key decision-attribute based versus non-attribute based approaches, procedure, how to interpret output, applications related to target market selection & positioning (interpretation of output is expected)
 - (e) **Discriminant Analysis (Two Group Case):** Conceptual basis, type of data required, determining the coefficients, interpreting discriminant function & classifying subjects using discriminant function, applications in marketing (interpretation of output is expected) (9+2+2)
4. **Marketing Research Applications - I:**
 - (a) **Sales Analysis and Forecasting:** Mining internal customer and sales data, In-store shopper marketing research and Retail shop audits, margin trend data, targeting best customers, identifying most efficient and effective advertising and promotion methods to reach existing consumers, Consumer panels, Customer satisfaction research, Concept of Market demand and Market potential, Forecasting, Forecasting methods, Choosing a forecast model, forecast errors. Moving Average and Exponential Methods, Decomposition Methods, Regression Models.

- (b) **New Product Development and Test Marketing:** marketing information for new markets, new product categories, new product concepts, new product design and market validation research, test marketing – uses, types, methods, limitations. Conjoint analysis for understanding consumer preferences and application to product design.
- (c) **Market Segmentation and Positioning:** researching traditional market segments, defining meaningful segments, assessing existing product strength and line extension potential, creative positioning strategy, repositioning strategy research, defining go-to-market strategy, current and potential markets. Use of Factor analysis and perceptual maps.
- (d) **Pricing research:** Pricing research and pricing strategy decisions, optimum price-product-feature configurations and market positioning opportunities. (8+2+2)
- 5. Marketing Research Applications - II:**
- (a) **Brand Research:** brand concepts, brand names, brand power research, brand equity survey measurements, Brand tracking studies.
- (b) **Advertising Research:** Concept testing research – evaluating advertising concepts, ad theme concepts and appeals, ad recall surveys, message and theme salience, impact measures, buying motivation and association measures, media research like readership surveys, Media audience tracking studies, TRP, Limitations of advertising research.
- (c) **International Marketing Research:** Marketing research in international context - importance, complexities and issues, International secondary data sources, Primary data collection methods and complexities of data collection in international marketing research, Online data sources and research, Issues in multi-country data analysis - Data comparability and validity problems, major sources of errors, Report preparation and presentation.(8+2+2)

Note: A mini marketing research project can be given in groups to students for concurrent evaluation.

Suggested Text Books:

1. Marketing Research, G C Beri, TMGH
2. Marketing Research - An Applied Orientation, Malhotra and Dash, Pearson Education.
3. Marketing Research, Churchill, Jr, G.A. and D. Iacobucci, South Western: Thomson.
4. Marketing Research, Zikmund, Babin, Cengage Learning
5. Marketing Research, Boyd, H.P., R. Westfall and S. F. Stasch, Delhi: A.I.T.B.S.
6. Marketing Research, Burns, G.A. and D. Bush, South Western: Thomson.

Suggested Reference Books:

1. Marketing Research, Green, P.E., Tull, D.S. and G. Albaum, New Delhi: Prentice Hall of India.
2. Marketing Research, Suja Nair
3. Marketing Research, Luck, D.J. and R.S. Rubin, New Delhi: Prentice Hall of India.
4. Marketing Research, Tull, D.S. and D.I. Hawkins, New Delhi: Prentice Hall of India.

Semester II		206MKT: Consumer Behavior
3 Credits	LTP: 2:1:1	Subject Core (SC) Course – Marketing Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO206MKT.1	REMEMBERING	RECALL the factors influencing Consumer’s purchase decision making process.
CO206MKT.2	UNDERSTANDING	OUTLINE consumer and organizational buyer behavior process.
CO206MKT.3	APPLYING	APPLY concepts of consumer behavior to real world marketing decision making.
CO206MKT.4	ANALYSING	ANALYZE the consumer decision making process and the role of different determinants that affect the buying decision process.
CO206MKT.5	EVALUATING	EXPLAIN the new trends influencing buyer behavior and its effect on new age Indian Consumer.
CO206MKT.6	CREATING	DISCUSS the consumer and organizational buying behavior process for a variety of products (goods/services).

- 1. Introduction to Consumer Behavior:** Definition, Consumer and Customers, Buyers and Users, Organizations as Buyers, Use of Market Segmentation in Consumer Behavior, The Changing Patterns of Consumer Behavior in the context of the evolving Indian Economy, The Internet, e-commerce, and information technology and the changing consumer marketplace, New Trends in Consumer Behavior and its Applications in Marketing. (4+1)
- 2. Individual Determinants of Consumer Behavior:**

(a) Consumer Personality – Personality, Self-concept, Overview of Personality Theories, Brand Personality, Emotions.

(b) Consumer Perception - Sensation (Exposure to Stimuli), Factors that Distort Individual Perception, Overview of Price Perceptions, Perceived Product & Service Quality and Consumer Risk Perceptions.

(c) Consumer Learning, Memory and Involvement - Components of Learning, Behavioral Theory, Cognitive Learning Theory, Concept of Involvement, Dimensions of Involvement, Involvement and Types of Consumer Behavior, Overview and Application of Cognitive Response Model.

(d) Consumer Attitudes - Functions of Attitude, Attitude Models, Relationship between Attitude, Beliefs, Feelings and Behavior, Learning Attitudes, Changing Attitudes, Attitude Change Strategies for marketers.

(e) Consumer Motivation - Needs and Goals, Motivational Conflict, Defense Mechanisms, Motive Arousal, Overview of Motivational Theories, Overview of Maslow's hierarchy of needs. (11+1)

3. Environmental Influences on Consumer Behavior:

(a) Cultural Influences on Consumer Behavior – Concept of Culture, Values, Sub-cultures, Influence of Indian Culture on Consumers, Multiplicity of Indian Cultures and their influence on consumer behavior, Cross-cultural Influences.

(b) Social Class and Group Influences on Consumer Behavior - Concept of Social Class, Social Sub-Class, Money and Other Status Symbols, AIO classification of Lifestyle, VALS Typology, Source of Group Influences, Types & Nature of Reference Groups, Reference Group Influences and Applications, Group Norms and Behavior, Family Life Cycle Stages, Family Purchases, Family Decision-making, Purchasing Roles within family, Word-of-Mouth Communications within Groups, Opinion Leadership.

(c) Indian Consumer: Social classes in India – Overview of old and new Socio-Economic Classes (SEC) in Urban & Rural Markets, Characteristics of BoP Consumers, Gen Z Consumers, HNI Consumers in India.

(d) Diffusion of Innovation - Types of Innovation, Diffusion Process, Factors Affecting the Diffusion of Innovation, The Adoption Process. (11+1)

4. Consumer Decision Making Process:

(a) Problem Recognition - Types of consumer decisions, types of Problem Recognition, Utilizing problem recognition information

(b) Search & Evaluation - Types of information, Sources of Information Search, Search, Experience and Credence Aspects -Marketing Implications, Situational Influences on Purchase Decisions, Nature of Situational Influence, Situational Variables

(c) Purchasing Process - Why do people shop? Store & Non-store Purchasing Processes, Purchasing Patterns

(d) Post-purchase Evaluation & Behavior - Consumer Satisfaction, Dissatisfaction, Customer Delight, Consumer Complaint Behavior, Post- Purchase Dissonance.

(e) Consumer Decision Models - Types of Consumer Decisions, Nicosia Model of Consumer Decision-making, Howard-Sheth Model, Engel, Blackwell, Miniard Model (11+1)

5. Organizational Buying Behavior: Introduction, Organizational Buyer Characteristics, Purchase and Demand Patterns, Involvement and Types of Organizational Buying Decisions, Factors Influencing Organizational Buyer Behavior, organizational Buyer Decision Process, Organizational Buying Roles.(3+1)

Note: Live examples and cases to be discussed.

Suggested Text Books:

1. Consumer Behavior, David L. Loudon & Albert J. Della Bitta, Tata McGraw Hill, 4th Edition
2. Consumer Behavior, Hawkins, Mothersbaugh, Tata McGraw Hill
3. Consumer Behavior, Batra, Kazmi, Excel Books
4. Consumer Behavior, Leon Schiffman, Leslie Kanuk, S.Ramesh Kumar, Pearson, 10th Edition
5. Consumer Behavior, Engel, Blackwell & Miniard
6. Consumer Behavior - An Indian perspective, Dr. S.L Gupta, Sumitra Pal, Sultan Chand and Sons
7. Consumer Behavior - In Indian Perspective, Suja R. Nair, Himalaya Publishing House.
8. Why we Buy: The Science of Shopping, Paco Underhill, Simon and Schuster Paperbacks.

Suggested Reference Books:

1. We are like that only by Rama Bijapurkar, Penguin
2. The Marketing White Book, Business World
3. Economic Times, Business Standard, Mint, Business world. (Brand equity & Brand wagon)

Additional Reference Material:

1. Understanding and shaping consumer behavior in the next normal, McKinsey, July 2020 (<https://www.mckinsey.com/~/media/mckinsey/business%20functions/marketing%20and%20sales/our%20insights/understanding%20and%20shaping%20consumer%20behavior%20in%20the%20next%20normal/understanding-and-shaping-consumer-behavior-in-the-next-normal.pdf?shouldIndex=false>)
2. Buyology: Truth and Lies About Why We Buy, by Martin Lindstrom, Doubleday Publishing Group, 2008.

Subject Elective (SE) Courses - Semester II
Specialization: Marketing Management

Semester II		217MKT: Integrated Marketing Communications
2 Credits	LTP: 1:1:1	Subject Elective (SE) Course – Marketing Management

Course Outcomes: On successful completion of the course the learner will be able to

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO217MKT.1	REMEMBERING	Describe the key concepts & components of IMC
CO217MKT.2	UNDERSTANDING	EXAMINE the role of integrated marketing communications in building brand identity, brand equity, and customer franchise.
CO217MKT.3	APPLYING	Apply the integrated marketing communications tools in contemporary real world scenarios.
CO217MKT.4	ANALYSING	ANALYZE and critically evaluate the communications effects and results of an IMC campaign to determine its success for a variety of brands.
CO217MKT.5	EVALUATING	Evaluate the IMC mix, advertising – sales promotion & PR strategies with real world examples of products / services / e-products / e-services
CO217MKT.6	CREATING	Develop an integrated creative message and concept to reach the target audience and deliver the brand promise through an IMC campaign.

1. An Introduction to Integrated Marketing Communication:

Meaning and role of Integrated Marketing Communication in marketing process, Role of IMC in creating brand identity, brand equity, Communication Process, Promotional Mix: Tools for IMC, The IMC Planning Process, Global IMC. The Value of IMC plans – information technology, changes in channel power, increase in competition, brand parity, integration of information, decline in the effectiveness of mass-media advertising. (3)

2. Advertising - I:

(a) Definition, History, Roles and Functions of Advertising, Types of Advertising, Steps in Development of Advertisement.

(b) Advertising Design: Appeals, Message Strategies & Execution Framework: Advertising Design, Advertising Theory, Types of Advertising Appeals, Message Strategies, Cognitive strategies, Execution Strategies, Advertising Effectiveness.

(c) Copywriting: Meaning and Definition of Copywriting, The Copywriter, Copywriting for Print, Copywriting guidelines, Radio Copywriting, TV Copywriting, Writing for the Web, Tips for writing good web content, blog writing, storytelling. (10)

3. Advertising - II:

(a) Media Planning and Strategies: Growth and Importance of Media, Meaning and Role of Media Planning, Media Planner & its role, Media Budget, Media buying Process, Market Analysis, Media Objectives, Developing and Implementing Media Strategies, Evaluating the effectiveness.

(b) Print Media and Outdoor media: Characteristics of the press, Basic media concepts, Newspapers, Magazines, Factors to consider for magazine advertising, Packaging, Out-of-home Advertising. In Transit Advertising, Digital signboard, billboards, Point-of-Sale Advertising.

(c) Broadcast and Internet Media: Meaning of Broadcast Media, Radio as Medium, Television as Medium, Internet Advertising, Email Advertising. OTT Advertising, Audio Music & Podcast, Social Media Advertising, Influencer Marketing, Mobile Advertising. (10)

(D) Digital Media & Advertising: Advertising on Digital Media, Advertising Laws & Ethics: Advertising & Law, Advertising & Ethics, Pester Power, Intellectual Property Rights.

4. Sales Promotion:

Scope and Role of Sales Promotion, Growth of Sales Promotion, Consumer Oriented Sales Promotion, Techniques in Sales Promotion, Trade Oriented Sales Promotion, Coordinating sales promotion and advertising; Sales promotion abuse; Personal selling. Role of Sales Promotion in communicating and offering Value to its customers, Techniques in Sales Promotion, Trade Oriented Sales Promotion, Customer Oriented Sales Promotion, Coordinating sales promotion and advertising, Digital Sales Promotion (Coupons, Gift Vouchers, Cash Back etc.) Personal selling: Meaning and Importance,

5. Public Relations, Publicity and Corporate Advertising:

Definition of Public Relations, Publicity and Corporate Advertising; Role and functions of Public Relations in Digital Economy Difference between public relations and advertising, Functions of Public Relations; Creating positive image building activities; Preventing or reducing image damage; Sponsorship and Event marketing; Role of internet in Public Relations, Publicity, Advantages and Disadvantages of Publicity. (3)

Suggested Text Books:

1. Advertising and Promotion, Belch, George and Belch, Michael, Tata McGraw Hill, New Delhi.
2. Integrated Advertising, Promotion and Marketing Communication, Clow, Kenneth & Black, Donald, Pearson Education, New Delhi.
3. Advertising Management, Jethwaney, Jaishree and Jain, Shruti, Oxford University Press, New Delhi.
4. Advertising and Promotions, Semenik Allen, Cengage Learning
5. Advertising and Promotion, SHH Kazmi, SatishBatra, Excel Books
6. Advertising and Promotions, Shah, D'Souza, Tata McGraw Hill

Suggested Reference Books:

1. Integrated Marketing Communication, Tom Duncan, McGraw-Hill
2. Integrated Marketing Communication: Trends and Innovations, Shridha Jain, Global India Publications
3. IMC, The Next Generation, Don Schultz and Heidi Schultz, Tata McGraw Hill, New Delhi.

Semester II		218MKT: Product and Brand Management
2 Credits	LTP: 1:1:1	Subject Elective (SE) Course – Marketing Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO218MKT.1	REMEMBERING	DEFINE the key concepts and DESCRIBE the elements of a product & Brand strategy.
CO218MKT.2	UNDERSTANDING	EXPLAIN the process and methods of Product & brand management, including how to establish brand identity and build brand equity.
CO218MKT.3	APPLYING	IDENTIFY the Brand Marketing Strategies for Leaders, Challengers, Followers and Niche Strategies for real life consumer, business products and services operating in various markets and in the digital space.
CO218MKT.4	ANALYSING	EXAMINE the key brand concepts by articulating the context of and the rationale of application for real life consumer, business products and services operating in various markets and in the digital space.
CO218MKT.5	EVALUATING	FORMULATE effective branding strategies for real life consumer, business products and services operating in various markets and in the digital space.
CO218MKT.6	CREATING	CREATE 'Brand Equity Management system' for real life consumer, business products and services as well as for Reinforcing / Revitalizing / Rejuvenating failed Brands in various markets and in the digital space.

1. Product Management: Product management as a basis of marketing organization structure. Role of product manager, Product management in consumer product industry Vs. industrial product industry. Overview of product level marketing plans. (5)

2. Product Strategy: Elements of a product strategy, Defining Competitive set, Category Attractiveness Analysis, Competitor Analysis, Customer Analysis, setting objectives, selection of strategic alternatives – increasing sales, market share, profitability, New product failure. (5)

3. Brand Management and Brand Equity: Definition of brand, Challenges in Branding Strategic brand management process, Brand Equity Models- Brand Asset Valuation, Aaker Model, BRANDZ, Brand Resonance, and Customer based Brand equity, Brand knowledge, Sources of brand equity - Brand Awareness, Brand Image. Approaches of Brand Valuation; Historical Cost, Replacement cost, Discounted cash flow, Price Premium & Brand contribution approach (7)

4. Planning and Implementing Brand Marketing Programs: The Four steps of brand building, creating customer value, Identifying and establishing brand positioning, Positioning guidelines, Brand differentiation based on Human-to Human touch ,Brand Identity, Choosing brand elements to build brand equity, Options and tactics for Brand, New perspectives on marketing, Integrating marketing communication to build brand equity, Conceptualizing the leveraging process, Co- branding, Celebrity Endorsement. Brand Marketing Strategies for Leaders, Challengers, Followers, Niche Strategies. (7)

5. Growing and Sustaining Brand Equity: The brand value chain, Brand audit, Designing brand tracking studies, Capturing customer mind set through quantitative and qualitative research techniques , Establishing Brand equity Management system; Brand Equity Charter, Brand Equity Report, Brand Equity Responsibilities Brand architecture,

Brand hierarchy, Designing brand strategy, New products, Brand extensions- advantage and disadvantage, & Types of Brand Extensions, Reinforcing brands, Revitalizing brands, Rejuvenating failed Brands. (6)

Suggested Text Books:

1. Product Management, Lehmann & Winer, TMGH
2. Product Management, S. A. Chunawalla, Himalaya Publishing House
3. Strategic Brand Management, Kevin Lane Keller, Pearson
4. Strategic Brand Management, J N Kapferer, Kogan Page
5. Brand Management, Dr. S.L.Gupta Himalaya Publishing House
6. Brand Marketing Management, Dr. M. V. Kulkarni, Everest Publishing House

Suggested Reference Books:

1. Product Management, Dr. C. Anandan, TMGH
2. Product & Brand Management, U.C. Mathur, Excel books
3. Positioning the Battle for your mind, Al Ries and Jack Trout
4. Building Brand Equity, David Aaker
5. Branding Concepts & Process, Debashish Pati
6. Successful Branding, Pran K Chaudhary
7. Brand Positioning Strategies for Competitive Advantage, Subrato Sen Gupta
8. Marketing 4.0 by Philip Kotler, Hermawan Kartajaya, and Iwan Setiawan, John Wiley & Sons

Supplementary Reading Material:

1. Brand Equity, Supplement of the Economic Times
2. Brand Wagon, Supplement of the Financial Express
3. Strategist, Supplement of Business Standard
4. Marketing White book

Semester II		219MKT: Personal Selling Lab
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Marketing Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO219MKT.1	1 REMEMBERING	LIST the key terms in selling and DESCRIBE the qualities of Winning Sales Professionals.
CO219MKT.2	UNDERSTANDING	EXPLAIN the concepts and terms that are central to personal selling.
CO219MKT.3	APPLYING	APPLY personal selling process and skills in real-life selling situations.
CO219MKT.4	ANALYSING	ILLUSTRATE the use of various sales techniques needed to achieve a profitable sale for a real world product/ service / e-product / e-service.
CO219MKT.5	EVALUATING	DEVELOP a customer plan that identifies all elements of personal selling, essential for creating successful sales for a real world product/ service / e-product / e-service
CO219MKT.6	CREATING	DESIGN sales presentations for a real world product/ service / e-product / e-service and for variety of selling situations.

1. **Personal Selling & Salesmanship:** Defining Personal selling and salesmanship, Selling as a profession, Objectives and Significance of personal selling in digital era, Essentials of Personal Selling, Traditional & Modern Selling Approach, Ethical and Legal Considerations in Personal Selling, Role of Selling in Marketing, Types of selling, Qualities of Winning Sales Professionals - Physical, Mental, Social and Character Traits. Theories of Selling: AIDA, Right set of circumstances theory of selling, Buying Formula theory of selling, Behavioral Equation theory, Pre sales, Post Sales and sales coordination (4)

2. **Personal Selling Process I:** Prospecting- objectives, sources and methods, Sales funnel, Lead Generation, Getting appointment, Sales Responsibilities and Preparation; Pre approach-step toward sales planning-elements of sales call planning; Customer need discovery & Analysis; Approach- sales presentation/ demonstration- selection of appropriate presentation method, essentials of presentation, sales presentation mix- persuasive communication, visual presentation and dramatization, Use of questions- Direct questions, non- directive questions, rephrasing, redirect questions; Sales Leads, Account Management, Building long-term partnership by Selling, Strategic Understanding of Company, Products, Competition, and Markets Strategic Understanding of Company, Strategic Understanding of Products. (7)

3. **Personal Selling Process II:** Handling objection- hidden, stalling, no need, money objection, etc., objection handling techniques, Closing the sale- reading buying signals, closing techniques- the alternative choice, assumptive, the compliment, the summary, the continuous, the minor point, the tea account, the standing room and the probability; Follow up after sales- Discuss service requirements, handling complaints, Key Account Management. Customer Service: meaning of Customer Service, Importance of Customer Satisfaction Customer Follow-Up Strategies, Customer Service Questionnaire, Evaluating Customer Service. (7)

4. Personal Selling Skills: What Companies Look for in New Salesperson, Negotiation, Communicating Effectively with Diverse Customers – Meaning of Communication, Developing Communication Skills, essentials of Effective Communicator, Communication Styles, making choice of Communication Style, Communication and Trust Building , Listening Skills, Presentation and Demonstration, Body Language- Space, Moments, Eye Contacts & Postures, Interpersonal skills, Follow up Calls, Writing Effective Sales Letters and e- mails, Positive Mental Attitude, Goal Setting, Effective Dressing, Managing Yourself, Managing Time and Territory Self-Management Effectiveness and Efficiency Sales Activities, Setting Priorities Account And Territory Management, Working Smarter , Cold Call Mechanism, Tools and Technical aids for Selling (3)

5. Personal Selling Applications and Situations: Careers in Personal Selling / Sales, Selling of services- financial, IT and telecommunication, advertising, education; Selling of industrial products- raw material, capital goods, supplies; Selling of consumer goods - convenience, shopping and specialty goods; International selling; Selling in rural markets; Selling high and low involvement products; Selling to new and existing customers Market; Selling to end users, intermediaries, government departments and agencies; Selling individual and groups(4)

Suggested Text Books:

1. Fundamentals of Selling by Charles M. Futrell, Tata McGraw Hill 10th Edition
2. A B C's of Selling by Charles M. Futrell, AITBS, New Delhi,
3. World Class Selling by Roy Chitwood, JAICO Publishing House
4. Successful Selling Solutions by Julian Clay, Viva Books
5. Value Added Selling by Tom Reilly, TMGH

Suggested Reference Books:

1. Achieving Sales Excellence by Howard Stevens, Viva Books Pvt. Ltd.
2. Power Sales Presentation by Stephan Schiffman, Adams Media Corporations.
3. Sales Essentials by Stephan Schiffman, Avon Massachusset
4. Smarter Selling by Keith Dugdale& Lambert, Prentice Hall.
5. Successful Sales- Get Brilliant Results Fast by Pauline Rowson, Viva Books.
6. Successful Selling Skills by Richard Denny, The Sunday Times.
7. The Art and Science of Negotiation by Raiffa H, Cambridge: Belknap/Harvard Press
8. Getting to Yes by Fisher R and Ury W, Harmondsworth Middlesex, GB Penguin Books

Semester II		220MKT: Digital Marketing - I
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Marketing Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO220MKT.1	REMEMBERING	DEFINE various concepts related to Digital Marketing.
CO220MKT.2	UNDERSTANDING	EXPLAIN the role of Facebook, Google Ad words, Youtube and Email in digital marketing.
CO220MKT.3	APPLYING	MAKE USE OF Facebook, Google Ad words, Youtube and Email for carrying out digital marketing of real life products.
CO220MKT.4	ANALYSING	ILLUSTRATE the use of Facebook, Google Ad words, Youtube and Email in various contexts of Digital Marketing.
CO220MKT.5	EVALUATING	DESIGN digital media campaign using appropriate mix of Facebook, Google Ad words, Youtube and Email.
CO220MKT.6	CREATING	CREATE appropriate content for Facebook, Google Ad words, Youtube and Email campaigns.

1. Digital Marketing and its Role in Global Context:

- 1.1 Concept, Role and Importance of Digital Marketing, Digital Marketing Vs. Traditional Marketing, Digital Marketing Process, Phygital marketing, Omni channel marketing, E-commerce & new trends in current scenario of the world.
- 1.2 Digital Marketing Environment, Digital Micro Environment, Understanding micro marketing elements in the digital marketing context
- 1.3 Digital Macro environment in India, PESTAL Analysis, National factors, global factors, role of cyber policy and digital commerce policy, Global Perspective of Digital Marketing (5+1+1)

2. Segmentation, Targeting and Positioning in Digital Marketing:

- 2.1 Segmentation: Concept, Need & Benefits, Criteria for segmenting Digital Audience - Geographic, Demographic, Psychographic, Behavioral segmentation.
- 2.2 Targeting Online Customers – Business, Government and Customer Markets.
- 2.3 Product Positioning, Sectoral perspective in digital marketing applications with the help of case studies.
- 2.4. Overview of Marketing Mix in digital marketing context. (5+1+1)

3. Digital Marketing Planning and Structure:

3.1 Inbound vs Outbound Marketing, Content Marketing, Understanding Traffic, Understanding Leads, Strategic Flow for Marketing Activities.

3.2 WWW, Domains, Buying a Domain, Website Language & Technology, Core Objective of Website and Flow, One Page Website, Strategic Design of Home Page, Strategic Design of Products & Services Page, Strategic Design of Pricing Page, Portfolio, Gallery and Contact Us Page, Call to Action (Real Engagement Happens), Designing Other Pages

3.3 SEO Overview, Google Analytics Tracking Code, Website Auditing, Designing Wordpress Website. (5+1+1)

4. Search Engine Optimization (SEO) Tools and Techniques:

4.1 Introduction to SEO concept and role in digital marketing: Understanding Search Engine Optimization: Search Engine Optimization (SEO), Features of SEO, Significance of SEO.

4.2 Model used in Digital Marketing, The Five Stage AACRO POEM model, Inverted Pyramid in SEO, Content Drilldown, E3model, Understanding Web and Mobile Marketing perspective.

4.3 Key SEO tools, Application and Functions Google Domain, Google my business, Google Search Console, Google Trends, Google Tag manager, SEM Rush, Domain Authority Score, Inbound Marketing.

4.4 Overview of Inbound Marketing: Essentials of an Effective Inbound Strategy, Optimizing Your Website for Search Engines, Convert Visitors in Leads, Creating Content with a Purpose, Lead & its generation online, Relevant Lead and Converting Visitors into Lead, Converting Leads into Sales. (5+1+1)

5. Search Engine Marketing (SEM) Tools:

5.1 Search Engine Marketing (SEM), Comparison between SEO and SEM, SMM and Keywords, Terminologies associated to SEM, Pay Per Click (PPC), Cost per Click (CPC), Search Engine Results Page (SERP), Click-Through Rate (CTR), Impressions, Google Display Network (GDN). Understanding Web and Mobile Marketing perspective.

5.2 Key SEM tools, Applications and functions, Google Ads, Google Analytics, Google Admob, Google Adsense, Google Marketing Platform, Google Shopping Campaign, Word stream advisor.

5.3 The Fundamentals of Blogging, Amplifying Your Content with Social Media, Enticing Clicks with Calls-to-Action, the Anatomy of a Landing Page, Optimization Thank You Page, Sending the Right Email to the Right Person, Hob Spot Inbound Marketing Certification.

5.4 Understanding the concept of Website Analytics, Different types of Web Analytics, Social Web Analytics, Mobile Web Analytics. (5+1+1)

Note: The teacher shall use practical assignments for evaluation.

Suggested Text Books:

1. Internet Marketing, Dave Chaffey, Fiona Ellis-Chadwick, Kevin Johnston, Richard Mayer, Pearson Education.
2. Digital Marketing, Oliver J Rich.
3. Online Marketing, Gerry T. Warner and Joe Wilson Schaefer.

Suggested Reference Books:

1. Digital Marketing, Prof. Seema Gupta, Mcgraw Hill Publications.
2. E- Marketing by Judy Strauss, Adel Ansary, Raymond Frost, Prentice Hall.
3. Social Media Marketing All-In-One for Dummies, Jan Zimmerman and Deborah.
4. Google Adwords for Beginners: A Do-It-Yourself Guide to PPC Advertising, Cory Rabazinsky.
5. Email Persuasion: Captivate and Engage Your Audience, Build Authority and Generate More Sales with Email Marketing, Ian Brodie

Supplementary Reading Material:

1. Journal of Internet Marketing and Advertising.
2. International Journal of Electronic Commerce.
3. International Journal of Electronic Retailing and Marketing.
4. International Journal of Online Marketing.

Websites:

1. www.smartinsights.com/digital-marketing-strategy/customer-segmentation-targeting/segmentationtargeting-and-positioning/
2. www.ibef.org
3. www.salesforce.com/Digital/Marketing

Suggested MOOCs:

1. Fundamentals of Digital Marketing- By Google
<https://learndigital.withgoogle.com/digitalunlocked/course/digital-marketing>
2. Digital Tools Certification- By Google
<https://skillshop.exceedlms.com/student/catalog>
3. Online SWAYAM certification
https://swayam.gov.in/nd2_ugc19_hs26/preview

Audio Visuals Link:

1. Free You Tube Channel:

https://www.youtube.com/channel/UCBDgBiaon_9MMMVCumg-v1g

2. Free You Tube Channel:

https://www.learn.digitalmarketing.com/?source=ga_ldm_default&gclid=EA1aIQobChMIxIH65aO6QIVA5GPCh0jW_w4ZEAAYAAAEglpE_D_BwE

Semester II		221MKT: Marketing of Financial Services - I
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Marketing Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO221MKT.1	Remembering	RECALL the key concepts of the Indian Banking system.
CO221MKT.2	UNDERSTANDING	Outline role of regulators, changing environment
CO221MKT.3	APPLYING	IDENTIFY the characteristics of banking and Non-banking financial institutions
CO221MKT.4	ANALYSING	OUTLINE the growth & service offerings of wealth management in global and Indian context.
CO221MKT.5	Evaluating	ASSESS the customer touch-points and customer-buying journey for financial services.
CO221MKT.6	CREATING	CREATE the marketing strategy for financial products.

1. Concept, Nature, and Scope of the banking system in India: Regulatory framework of the Indian Banking system; Growth of banking sector in India; Role of banks in the economy and the importance of banking in the economy. An overview of the banking functions of Indian Banking & Non-banking financial institutions (NBFC). Understanding trends and challenges in Indian banking system. Cash reserve ratio, statutory liquidity ratio, repo and reverse repo, Overview KYC. (5+1)

2. Overview of E-banking and history of e banking: Importance of E-banking: human involvement, and e-banking. Traditional Banking Vs E-Banking; technologies – personal computer banking, Telephone banking, branch networking. E-banking technologies/ electronic delivery channels – ATM, POS Machine, electronic cards, mobile phone banking, electronic transfer methods: IMPS, NEFT, RTGS, Payment banks, Mobile Banking, mobile valets, Payment Mobile Applications., Para Banking concept. Fishing attacks and how to be safe from fishing. (5+1)

3. Introduction to Merchant Banking: Need of merchant banking services, difference between merchant and retail banking: Role and responsibilities of merchant banker Corporate consultancy, Project Counselling, Identification of potential investment opportunities, Capital structuring, negotiate with foreign collaborations, mergers and takeovers. Preparation of project feasibility reports, Portfolio Management, Loan/Credit Syndication, Arranging Working Capital Finance, Corporate consultancy, Project Counselling, Identification of potential investment opportunities. The role of bank/s associated with International Trade process. Trade Transactions. (5+1)

4. Other Financial Services: Leasing / Hire Purchase: Definition, meaning, types, process, advantages, limitations. Housing Finance: Major institutions involved, types, rate of interest, advantages, scenario in India. Credit Cards: Meaning, types, growth, advantages and disadvantages, growth in India. Credit Rating Services: Origin, definition, advantages, credit rating agencies Indian and Global. Other Services: Factoring, forfeiting, bill discounting, consumer finance and venture capital. (5+1)

5. Marketing strategy & consumer behaviour: Objectives of marketing financial products; marketing mix for financial services, marketing budget, lead generation, challenges, and opportunities in financial marketing, adapting to changing market environment. Traditional marketing & Social media marketing- – Print media, TV, seminars, trade shows, Advantages & disadvantages speed-scale and reach of the digital platform, use of Facebook, Twitter, LinkedIn, company websites, financial services aggregator websites, email marketing, financial blogs. Chatbots, AI, machine learning, deep learning, Blockchain, future potential for growth for the marketing of financial services. Perception about risk & returns, knowledge about financial products, touch point for buying financial products, choice of distribution channel, customer journey of buying financial services. CRM strategies for financial services. (5+1)

Suggested Text Books:

1. Security Analysis and Portfolio Management by Sudhindra Bhat, Excel Books, 2011 Edition

2. Marketing of Financial Services, V.A. Avadhani, Himalaya Publishing House

3. Marketing Financial Services by Hooman Estelami, Dog Ear Publishing, LLC

The New Wealth Management: The Financial Advisor's Guide to Managing and Investing Client Assets

Semester II		222MKT: Marketing of Luxury Products
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Marketing Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
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CO222MKT.1	REMEMBERING	DESCRIBE the various concepts associated with luxury brand management and marketing.
CO222MKT.2	UNDERSTANDING	UNDERSTAND the Consumer behavior in the context of luxury brands and differential perspectives in managing luxury brands.
CO222MKT.3	APPLYING	APPLY the best strategy for segmenting, targeting and positioning the various luxury brands.
CO222MKT.4	ANALYSING	ANALYSE the marketing strategies for luxury products in changing marketing dynamics.
CO222MKT.5	EVALUATING	ASSESS the role of Luxury retail format and EVALUATE the luxury markets, nationally, internationally and globally.
CO222MKT.6	CREATING	DEVELOP a marketing plan for a luxury product marketing in real world

- 1. Introduction to Managing Luxury brands:** Defining brand ,luxury and relativity, luxury goods, luxury brand, fashion, difference and similarity between luxury and fashion, Unique properties, opportunities, and challenges of ever-changing markets of design, fashion, and luxury goods. Luxury -historical and contemporary perspectives. Main luxury sectors: definition and trends. Luxury brands in the emerging markets and the Indian context, and historical leaders. **(5+1)**
- 2. Understanding Luxury Consumer and Methodological approaches to understanding luxury:** Identifying a luxury product: main types, Features of consumer behavior, Basic psychological phenomena associated with luxury purchase, Luxury consumption motives, Luxury Brand Identity, Changing marketing dynamics and impact on the marketing, experience and consumption of luxury products. **(5+1)**
- 3. Luxury Segmentation, Targeting, Positioning & Marketing Mix:** Pursuing long term profitability through sound marketing strategies. Segmentation of Luxury products, Positioning – (a) Identity management-Communication policy, managing creativity, corporate image and volatility, (b) Channel management Luxury marketing mix: product policy, Steps in building luxury brands, price policy, distribution policy, Craftsmanship: How are things made and why it matters, Communicating & Distributing Luxury. **(5+1)**
- 4. International luxury markets:** Understanding Global Trends in Luxury markets, Understanding Differential perspectives in Luxury: East vs. West; Role/ Influence of Gender in Luxury brands consumption Masculine vs. Feminine; Seriousness vs. Humor, understanding Cultural Perspectives and its impact in managing luxury brands/ products. **(5+1)**
- 5. Luxury retail:** Understanding Different Segments of Luxury Retail: The beauty & fragrance industries, Fine Jewelry& timepieces, Accessories; Art, Beauty products, Hospitality, Automotive, Fashion, Role of Retail Format on Luxury products. **(5+1)**

Suggested Text Books:

1. The Luxury Strategy, Kapferer, Jean-Noeland V. Bastien, Kogan Press

Suggested Reference Books:

1. The Luxury Strategy: Break the Rules of Marketing to Build the Luxury Brand. V. Bastien, J. N. Kapferer. Kogan Page Publication
2. The idea of prestige: A conceptual and historical investigation, Berry, C.J., Cambridge University Press.
3. Economics and consumer behavior, Deaton, A., & Muellbauer, J., Cambridge University Press.
4. Luxury Retail Management: How the World's Top Brands Provide Quality Product and Service Support. Chevalier, M & Gutsatz, M. Singapore: John Wiley & Sons.
5. Global Luxury Trends: Innovative Strategies for Emerging Markets. Hoffmann, J, & Coste-Maniere, I London: Palgrave Macmillan

**Subject Core (SC) Courses - Semester II
Specialization: Financial Management**

Semester II		205FIN: Financial Markets and Banking Operations
3 Credits	LTP: 2:1:1	Subject Core (SC) Course – Financial Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO205FIN.1	REMEMBERING	RECALL the structure and components of Indian financial system through banking operations & Financial Markets.
CO205FIN.2	UNDERSTANDING	UNDERSTAND the concepts of financial markets, their working and importance.
CO205FIN.3	APPLYING	ILLUSTRATE the working and contribution of Banks and NBFCs to the Indian Economy.
CO205FIN.4	ANALYSING	ANALYZE the linkages in the Financial Markets.
CO205FIN.5	EVALUATING	EXPLAIN the various banking and accounting transactions.
CO205FIN.6	CREATING	DEVELOP necessary competencies expected of a finance professional.

- Basic Concepts of Indian Financial System:** Structure and Components: Indian financial system in India, Role of financial system in economic development. Introduction to financial Institutions – Banking – Non Banking Institutions. Role and Functions of Banks and their Contribution to Indian Economy. Introduction to Financial Markets, Functions and Classification. Money Market, Capital markets, Bond markets, Commodity markets, Money markets, Derivatives markets, Futures markets, Foreign exchange markets, Crypto currency market **(7+2)**
- Money Market:** Structure and components: Participants in Indian Money Market, Money Market Instruments, Structure of Money Market, Role of central bank in money market; Players in the Indian Money Market, The reforms in Indian Money Market. **(7+2)**
- Capital Market:** Components & Functions of Capital Markets, Primary & Secondary Market Operations, Capital Market Instruments - Preference Shares, Equity Shares, Non-voting Shares, Convertible Cumulative Debentures (CCD), Fixed Deposits, Debentures and Bonds, Global Depository receipts, American Depository receipts, Global Debt Instruments, Role of SEBI in Capital Market. **(7+2)**
- Banks and NBFCs:** Types of Banks & NBFCs: Central Bank, Nationalized & Co Operative Banks, Regional Rural Banks, Scheduled Banks, Private Banks & Foreign Banks, Mudra Bank, Small Finance Banks, Specialized Banks, NBFCs. Types of Banking: Wholesale and Retail Banking, Investment Banking, Corporate Banking, Private Banking, Development Banking. **(7+2)**
- Concepts in Banking and Accounting of transactions:** Accounting in banks, Electronic Banking, Role of Technology in Banking services - ATM, NEFT, RTGS, IMPS, ECS, MICR, etc. Lending Practices, Principles of Sound Bank Lending, Financial reporting and control. **(7+2)**

Suggested Text Books:

- Indian Financial Services, M Y Khan
- Marketing of Financial Services, Dr D Guruswamy
- Financial Services In India, Avadhani,V.A.
- Risk and Insurance Concepts , P Perriasamy, M Veerasevalam
- Financial services of India, Dr. D Guruswamy
- Capital Markets & Financial Services, Anil Agashe
- Financial services, M. Y. Khan

Semester II		206FIN: Personal Financial Planning
3 Credits	LTP: 2:1:1	Subject Core (SC) Course – Financial Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO206FIN.1	REMEMBERING	UNDERSTAND the need and aspects of personal financial planning
CO206FIN.2	UNDERSTANDING	Describe the investment options available to an individual
CO206FIN.3	APPLYING	IDENTIFY types of risk and means of managing it
CO206FIN.4	ANALYSING	DETERMINE the ways of personal tax planning
CO206FIN.5	EVALUATING	EXPLAIN retirement and estate planning for an individual and design a financial plan.
CO206FIN.6	CREATING	CREATE a financial plan for a variety of individuals.

1. **Introduction to Financial Planning:** Need for Financial Planning, Assessing personal and financial goals, needs and priorities, attitudes and expectations and risk tolerance level, Personal Financial Planning Process, Preparation of Personal Budget, Personal Financial Statements, Responsibilities of a Financial Planner, Time Value of Money, KYC, PAN & AADHAR **(5+2)**
2. **Investment Planning:** Introduction to Investment Planning, Investment Criteria- liquidity, safety and Profitability, Investment vehicles (Gold, Bonds, Equity, FD, Insurance, MFs, ETFs, Post Office Savings, Real Estate etc.), Risk and Return associated with these investments, Return comparison over a period of time from different asset classes, Investment strategies, Mutual Funds as Investment Vehicle-Special focus on SIP, STP, and SWP, NFOs, Trading in Commodities, Derivatives and F&Os, Crypto currency, Creating an Investment Portfolio, Awareness of mis-selling in investment products. **(10+2)**
3. **Risk Analysis, Insurance Planning and Debt:** Risk analysis, Concept of long term risk, Insurance decisions in personal financial planning, Types of insurance cover- mortality, health, disability, property and liability, ULIPs and Term Plans, Credit Card Financing, Types of Consumer and Home Loans- cost and risk, Credit Score. **(8+2)**
4. **Tax Planning:** What is Tax Deduction? Tax Deductions under the Section and respective Subsections of : 80C, 80D, 80E, 80G, 80 I, Sections 80 JJA, 80QQB, 80RRB, 80TTA, 80U and other relevant sections, Direct Tax Code (DTC), Taxation impact on different investment options, Personal tax planning, Filing IT Returns. **(6+2)**
5. **Retirement Planning and Estate Planning:** Wealth creation, retirement planning for an individual, Pension Plans, Provident Fund, Gratuity, Life Insurance Plans., General Insurance Plans, Reverse Mortgage Plans, Senior Citizen Schemes, What is Estate? Who needs Estate Planning? Transferring assets during life time, Power of Attorney, Transferring assets post death – e.g., Nominations, Will, and Creating Trusts. **(6+2)**

Note:

1. **The weightage in the question paper shall be as follows:** Numerical problems / Cases: 40% & Theory: 60%
2. **Formats of documents to transfer assets should be discussed**
3. **Numerical problems on the following should be taught :**
 - a) Time Value of Money: Compounding, Discounting, Annuities, Sinking Fund, Perpetuities
 - b) EMI calculation on loans

Suggested Text Books:

1. Basics of Personal Financial Planning Insurance Education Series by NIA, K C Mishra, Steward Doss, Cengage Delmar Learning India Pvt. Ltd.

Suggested Reference Books:

1. Introduction to Financial Planning , Indian Institute of Banking & Finance
2. Personal Financial Planning Theory and Practice, Kaplan Schweser
3. Personal Finance, E. Thomas Gorman and Raymond E. Fogue, Southwest-Western Cengage Learning.
4. Fundamentals of Financial Planning, Michael Dalton, Joesph Gillice, James Dalton and Thomas Langdon, Money Education
5. Personal Financial Planning, Benedict Koh Wai Mun Fong, Pearson
6. Personal Financial Planning, Lawrence J. Gitman , Michael D.Joehnk, Cengage NOW.

Subject Elective (SE) Courses - Semester II
Specialization: Financial Management

Semester II		217FIN: Securities Analysis & Portfolio Management
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Financial Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO217FIN.1	REMEMBERING	REMEMBER various concepts of investments, Bonds.
CO217FIN.2	UNDERSTANDING	EXPLAIN various theories of Investment Analysis and Portfolio Management.
CO217FIN.3	APPLYING	CALCULATE risk and return on investment using various concepts covered in the syllabus.
CO217FIN.4	ANALYSING	ANALYZE and DISCOVER intrinsic value of a security.
CO217FIN.5	EVALUATING	DESIGN/ CREATE optimal portfolio.

- Introduction & Concepts: Investment:** Meaning, nature & objectives, Investments Vs. Speculation & Gambling, Investment Process, Investment Environment, Investment avenues: Marketable & Non marketable financial assets. **Portfolio Management:** Meaning, attributes, significance and process of Portfolio Management, Portfolio manager and his role **(3+1)**
- Risk & Return Analysis: Risk & Return:** Meaning and Elements of Risk & Return, Measurements of Risk & Return, Relationship between risk and return. **Fundamental Analysis:** Economy analysis, industry analysis and company analysis, weaknesses of fundamental analysis. **Technical Analysis:** Meaning, Tools of technical analysis, Technical Analysis vs. Fundamental Analysis. **Efficient Market Theory:** Meaning. Forms of Market Efficiency, Efficient Market Hypothesis vs. Fundamental & Technical Analysis **(7+1)**
- Valuation of bonds and shares: Bond Valuation:** Meaning, Types, Bond Prices, Bond Return, Risks in Bonds. **Equity Valuation:** Meaning, Concept of Present Value, Share Valuation Models, Multiplier Approach to Share Valuation **(5+1)**
- Portfolio Analysis & Selection: Concept of portfolio and portfolio management:** Meaning, Types of Portfolio Risks, Diversification of Risks, Selection of Optimal Portfolio. **Markowitz Portfolio Selection Model:** Efficient set of portfolios, Optimal Portfolio selection, Limitations of the Model. **Capital Asset Pricing Model (CAPM):** Meaning, Assumptions & Limitations of CAPM. **Sharpe-The Single Index Model:** Measuring security risk & return, Measuring Portfolio Risk & Return. **Factor Models and Arbitrage Pricing Theory:** Arbitrage Pricing Theory and its principles, Comparison of Arbitrage Pricing Theory with the Capital Asset Pricing Model **(7+1)**
- Portfolio Revision & Evaluation : Portfolio Revision:** Meaning and need of Portfolio Revision, Constraints in Portfolio Revision, Revision Strategies, **Portfolio Evaluation:** Meaning and need of Portfolio Evaluation, Evaluation Perspectives, Measuring Portfolio Returns & Risk Adjusted Returns **(3+1)**

Suggested Text Books:

- Investment Analysis and Portfolio Management, Chandra, Prasanna (Tata McGraw Hill Publishing Co. Ltd.)
- Securities Analysis & Portfolio Mgmt., V A Avadhani ,Himalaya Publications
- Security Analysis and Portfolio Management, S. Kevin, PHI Learning Pvt. Ltd.
- Investment Analysis & Portfolio Management, Ranganathan&Madhumathi ,Pearson Education Pvt. Ltd.

Suggested Reference Books:

- Security Analysis and Portfolio Management, Fischer DE & Jordan R J, Prentice Hall.
- Portfolio Management, Barua, S. K.; Raghunathan V; Varma, J R ,Tata McGraw Hill Publishing Co. Ltd.
- Investment Analysis and Portfolio Management, Frank K. Reilly and Keith C. Brown ,Thomson Learning
- Modern Investments and Security Analysis, Fuller R J; Farrel JL ,McGraw Hill
- Investment Management, V.K. Bhalla ,S.Chand& Co.
- Security Analysis & Portfolio Management, S.Bhat, Excel Books
- Security Analysis and Portfolio Management, Punithavathy P., Vikas Publishing
- Security Analysis and Portfolio Management, A.P. Dash,I.K. International

Semester II		218FIN: Futures & Options
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Financial Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO218FIN.1	REMEMBERING	Describe the basic concepts in derivatives, terminology related to futures, options and risk management.

CO218FIN.2	UNDERSTANDING	Understand the functioning of derivative market, standard derivative contracts, their properties, functionality.
CO218FIN.3	APPLYING	Apply technical methods for valuation of Future, options and other derivatives, in continuous and discrete time.
CO218FIN.4	ANALYSING	Analyse risk measures that are commonly used in risk management.
CO218FIN.5	EVALUATING	Evaluate different assumptions and principles behind derivatives pricing, risk management and evaluate strategies related to derivatives contract by eliminating volatility
CO218FIN.6	CREATING	Create Futures and Options trading strategies and also create hedging positions.

1. **Introduction:** Definition of Derivative, Brief history of derivatives, participants in derivative market, Economic functions of derivative market, Evolution of commodity market, currency, stocks and Interest rate derivatives, Structure of derivative market- Forwards, Futures, Options, Swaps etc. Future and Options trading strategies: Risk Management, Hedging, speculation and Arbitrage, Spread trading **(5+1)**

2. **Market Characteristics:** Futures and Options contract specifications, Underlying Asset, Contract size, and Delivery Specification, Moneyness of an option contract- In the Money (ITM), AT the money (ATM), Out of the Money (OTM), Mark to Market (MTM) using margin accounts, familiarizing with markets Quotes, trading strategies, involving options and Futures, Interest rate Derivatives, Contractual Specifications- floating and Fixed rate, Valuation of Interest Rate Derivatives **(5+1)**

3. **Derivatives Pricing Theory:** Factors affecting Option Price: Option Payoffs, Black-Scholes formula for option pricing, Futures pricing: Pricing by Arbitrage: Relationship between futures and spot price (cost of carry and reverse cost of carry), difference between futures and forward price. **(5+1)**

4. **Risk Analysis and Management:** Risk Measurement and Management framework, Options risk Management strategies, Options Greeks- Delta/Theta/Vega & Gamma, hedging with futures. **(5+1)**

5. **Options and Futures Applications in India:** Structure of Indian Stock Markets and the Operational Efficiency of Options and Futures, Determination of the Fair Value of Futures and Options Prices, Interactions between Spot Equity Trading and Trading in Derivatives. Index Options and Futures, Constructing an Index, Methodology of Construction, Trading an Index. Conditions necessary to Improve the Market Structure in India and Policy Interventions. **(5+1)**

Suggested Text Books:

1. Futures & Options, A.N.Sridhar
2. Financial Derivatives, S.L.Gupta
3. Financial Derivatives, S.S. Kumar
4. Options, Futures & Other Derivatives, John C. Hull
5. Option Volatility & Pricing, Sheldon Naten Berg
6. The New Options Market, Max Ansbacher

Suggested Reference Books:

1. Futures & Options, ND Vohra, B.R.Bagr
2. Derivatives & Risk Management Basics, Don. M. Chance, Robert Brooks.
3. Derivatives & Risk Management, Jayanth Rama Varma

Semester II		219FIN: Direct Taxation
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Financial Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO219FIN.1	REMEMBERING	REMEMBER various basic concepts / terminologies related Direct Taxation
CO219FIN.2	UNDERSTANDING	EXPLAIN how tax planning can be done.
CO219FIN.3	APPLYING	CALCULATE Gross Total Income and Income Tax Liability of an individual assessee of all income heads.
CO219FIN.4	ANALYSING	Permissible exemptions and deductions from income under Income Tax Act.
CO219FIN.5	EVALUATING	EVALUATE the tax liability and benefits of possible exemptions under Income Tax Act
CO219FIN.6	CREATING	DESIGN / DEVELOP / CREATE tax saving plan.

- 1. Introduction:** Basic definitions and concepts: Direct Tax, Indirect Tax Income, agricultural income, person, assessee, assessment year, previous year, gross total income, total income, maximum marginal rate of tax; Residential status; Scope of total income on the basis of residential status Exempted income under section 10. **(3+2)**
- 2. Income under the Head “Salaries” (new amendments of Finance Act 2020 & changes in perquisite) & “Income from House Property”:** Meaning of salary, Basis of charge of salary income, different forms of salary, different forms of allowances, perquisites, permissible deductions from salary income, tax treatment of provident fund (Basis of charge, property income not charged to tax, computation of income from let out house property and self-occupied property. **(8+2)**
- 3. Income under the Head “Profits and Gains of Business and Profession”:** (revision of tax audit report 2021) : Computation of profit or gain from business and profession (expenses expressly allowed as deduction; general deductions; expenses specifically disallowed) basis of charge; chargeable incomes; specific deductions; amount not deductible **(8+2)**
- 4. Income under the Head “Capital Gain” and “Other Sources”:** **Capital Gain**- Meaning- Capital Gain, Basis of charge, important definitions like Capital Asset, Short Term Capital Asset, Long Term Capital Asset, Transfer of Capital Asset, Short Term Capital Gain and Long term Capital Gain and their computation. **“Other Sources”** - Incomes Chargeable Under the head “Other Sources” (Section 56), Deductions Allowable (Sec. 57), Deductions Not Allowable (Sec 58), Bond Washing Transactions and Dividend Stripping (Sec 94). **(8+2)**
- 5. Net Taxable Income and Certain other Points:** Computation of net total income based on 5 heads, carry forward and set-off of losses and deductions under Sec. 80, Computation of Income Tax Liability, Advanced Payment of Tax, TDS, Tax Planning & Tax Evasion, Income Tax Returns, E-filing of ITR **(8+2)**

Suggested Text Books:

1. Direct Taxes, Ravi Kishore
2. Direct Taxes, J.P. Jakhotiya
3. Direct Taxes, Dr. Girish Ahuja & Dr. Ravi Gupta
4. Direct Taxation, Dr. Pradip Kumar Sinha

Suggested Reference Books:

1. Students Guide to Income Tax, Dr. Vinod Singhania (Taxmann)
2. Income Tax Law and Practices, V.P. Gaur, D.B. Narang, Puja Ghai & Rajiv Puri (Kalyani Publication)
3. Students’ Hand Book on Income Tax, T.N. Manoharan & G.R. Hari

Semester II		220FIN: Financial Reporting
2 Credits	LTP: 2:1:1	Subject Elective (SE) Course – Financial Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO219FIN.1	REMEMBERING	Describe the basic concepts related to Financial Reporting taught through the syllabus.
CO219FIN.2	UNDERSTANDING	Explain, in detail, all the theoretical concepts taught through the syllabus.
CO219FIN.3	APPLYING	Do all the necessary calculations pertaining to financial reporting.
CO219FIN.4	ANALYSING	Analyze the situation and decide the key elements of financial reporting through the financial statements.
CO219FIN.5	EVALUATING	Evaluate the compliance and quality of financial reporting.
CO219FIN.6	CREATING	Design / Create financial report of a firm

- 1. Financial Statements Preparation Framework:** Purpose and Scope of Financial Statements, Users of Financial Statements, Underlying Assumptions – Going Concern, Consistency and Accrual, Qualitative Aspects of Financial Statements – Understandability, Materiality, Faithful Representation, Substance Over Form, Neutrality, Prudence, Completeness.
- 2. Preparation of Corporate Financial Statements:** Division II of Schedule III of the Companies (Amendment) Act, 2015 – Part I: Balance Sheet and Statement of Changes in Equity, Part II – Statement of Profit and Loss and Notes to Financial Statements.
- 3. Presentation of Items in Financial Statements and Revenue Recognition using relevant Indian Accounting Standards (AS):** Ind AS 1 “Presentation of Financial Statements”, Ind AS 7 - “Statement of Cash Flows”, Ind AS 8 “Accounting Policies, Changes in Accounting Estimates and Errors” and Ind AS 34 – “Interim Financial Reporting”, Ind AS 115 – “Revenue From Contract With Customers”.
- 4. Reporting of Assets, Liabilities and Disclosures in Financial Statements using relevant Indian Accounting Standards (AS):** Ind AS 2 “Inventories”, Ind AS 16 “Property, Plant and Equipment”, Ind AS 23 “Borrowing Costs”, Ind AS 36 “Impairment of Assets”, Ind AS 38 “Intangible Assets”, Ind AS 19 “Employee Benefits”, Ind AS 37 “Provisions, Contingent Liabilities and Contingent Assets”, Ind AS 33 “Earnings Per Share” and Ind AS 108 “Operating Segments”.

5. **Miscellaneous Issues in Financial Reporting:** Reporting of Financial Instruments, Value Added Statements, Corporate Social Responsibility Reporting.

Suggested Text Books:

1. Advanced Accountancy, ShuklaGrewal, S. Sultan Chand & Co.
2. Financial Accounting: Reporting and Analysis, Stice
3. Financial Reporting and Management Accounting, Bruns
4. Financial Management, Prasanna Chandra
5. Indian Accounting Standards & GAAP, Dolphy D'Souza, Snow White Publications
6. Financial Management, Khan and Jain
7. Corporation Finance, S.C.Kuchhal

Semester II		221FIN: Securities Analysis & Portfolio Management
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Financial Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO221FIN.1	REMEMBERING	Remember and describe the key concepts covered in the syllabus.
CO221FIN.2	UNDERSTANDING	Explain in detail the Retail Credit Evaluation, Lending and Recovery Process as well as other relevant concepts covered in the syllabus
CO221FIN.3	APPLYING	Calculate the loan eligibility of the retail borrower and the amount to be classified as NPA.
CO221FIN.4	ANALYSING	Determine the key elements of retail lending and recovery process and documentation therein.
CO221FIN.5	EVALUATING	Design the Retail Lending and Recovery Process for a Bank & NBFC.

1. **Retail Credit:** Introduction, Basic features of retail credit sector, Multiple Products and Multiple channels of Retail sector (**Retail Banking and NBFC**), Credit Information companies in India (CIBIL and others) Credit history and Credit Score, General Guidelines –Processing applications, Terms and Conditions, Disbursement, Banking Codes and Standard Board of India (BCSBI) **(5 +1)**
2. **Banking Retail credit products and Procedures:** Personal Loans, Home loans, Home loans for NRI, Auto loans, Consumer loans for durable goods, Educational loans, Gold loan (Eligibility, Purpose, Maximum Loanable Amount, Margin of Safety, Security Against Loan, Pre-Payment/Foreclosure), Credit cards (Eligibility, Security, Billing Cycles, Credit Points, Credit Transfer), Priority sector Advances (Targets, sub targets, recent developments) **(5 +1)**
3. **Non Banking Financial companies Retail credit products and procedures:** Introduction of NBFC, Role of NBFC in India, Personal finance, Gold loan, consumer durables, two wheeler loans, education loans, Difference between retail credit sector in banking & NBFC. **(5 +1)**
4. **Non-Performing Assets:** Present NPA norms, Features of special accounts, willful defaulters, recovery measures. **(5 +1)**
5. **Debt Recovery Management** -Legal and non-legal measures, Consumer Protection in retail credit, Strategies of banks, OTS Agreement, Critical issues on recovery of bad loan, Insolvency and Bankruptcy Code. **(5 +1)**

Suggested Text Books:

1. Basics of Banking and Finance, Dr.K., Bhattacharya, O.P. Agarwal
2. Principles & Practices of Banking, Indian Institute of Banking and Finance
3. Banking Theory & Practices, KC Shekhar, Lekshmy Shekhar
4. Banking Reforms and Lead Bank Scheme, Uday Kumar Lal Das
5. Essentials of Banking and Finance, Gautam Majumdar
6. Credit Monitoring, Legal Aspects & Recovery of Bank loan, V. Rajaraman

Suggested Reference Books:

1. Master circulars of RBI
2. The Economic Times

Semester II		222FIN: Banking Laws & Regulations
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Financial Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO222FIN.1	REMEMBERING	REMEMBER various concepts taught in the syllabus.
CO222FIN.2	UNDERSTANDING	EXPLAIN the Regulatory Framework in the Indian Banking system.

CO222FIN.3	UNDERSTANDING	DESCRIBE the various legal aspects which need to be followed during daily banking operations.
CO222FIN.4	UNDERSTANDING	DISCUSS the various laws related to banking.
CO222FIN.5	APPLYING	APPLY the various commercial laws for the smooth functioning of banking operations.

- 1. Regulatory Framework:** Business of Banking, RBI Act 1934, Banking Regulation Act 1949, Role of RBI, Government as a regulator, Control over Organization of banks, Control over co-operative banks, Regulation by other authorities. **(4+1)**
- 2. Compliances of Regulations by Banks:** Opening of new banks, Branch Licensing, Board of Directors and their rights, Rights of Banks shareholder, Monetary and Credit policy, Annual statements of accounts, Audit and Inspection, submission of returns to RBI. **(4+1)**
- 3. Legal Aspects of Banking Operations:** Types of borrowers, Types of Credit Facilities (secured, unsecured, fund based, non-fund based), Laws relating to Bill Finance, Securities and Modes of charges (Mortgage, Lien, Pledge, Hypothecation, etc), Creation and satisfaction of charge. **(5+1)**
- 4. Laws related to Banking:** DRT Act 1993, SARFAESI Act, Banking Ombudsman Scheme, Bankers Books Evidence Act 1891, CERSAI, Consumer Protection Act 1986, Negotiable Instruments Act 1881, Payments & Settlement systems Act 2007. **(6+1)**
- 5. Commercial Laws relating to Banking Operations:** The Indian Contract Act 1872, The Sale of Goods Act 1930, The Companies Act 1956, Transfer of Property Act 1882, Foreign Exchange Management Act 1999, The Prevention of Money Laundering Act 2002, Information Technology Act 2000, The Right to Information Act 2005. **(6+1)**

Suggested Text Books:

1. All Publications of IIBF and NIBM
2. All Bare Acts mentioned in the syllabus

Semester II		223FIN: Fundamentals of Life Insurance – Products and Underwriting
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Financial Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO223FIN.1	REMEMBERING	REMEMBER all the concepts pertaining to Life Insurance covered in the course syllabus.
CO223FIN.2	UNDERSTANDING	Understand functioning of the Life Insurance, its products and legal compliance.
CO223FIN.3	UNDERSTANDING	Applying the life insurance knowledge and skills in different scenarios.
CO223FIN.4	UNDERSTANDING	ANALYZE the inter-relationship between Insurance & associated risk
CO223FIN.5	APPLYING	FACILITATE the compliance required for acquiring the policy and settlement of claims.
CO223FIN.6	CREATING	DESIGN the life insurance cover strategy for clients.

- 1. Life Insurance - Introduction:** History and evolution, Functions of Insurance, Advantages of Life insurance, Terminologies in Life Insurance. **(4+2)**
- 2. Life Insurance Market in India** –Structure of Indian Life Insurance Market, Risks, Types of Risks and Characteristics of Insurable Risks, Perils, Hazards and Life Insurance. **(4+2)**
- 3. Life Insurance Products** –Term Insurance, Endowment Policy, Whole-Life Policy, Child Policy, Unit Linked Insurance Policy and other relevant products. **(4+2)**
- 4. Underwriting** – Meaning of Underwriting, Underwriting Process, Underwriting Considerations, Renewals, Lapse and Claims. **(4+2)**
- 5. Regulatory Aspects and Ethics** –IRDA and its role, Ethics in the Insurance Industry and their importance. **(4+2)**

Suggested Text Books:

1. Insurance and Risk Management, P.K.Gupta, Himalaya Publishing House
2. Insurance, Principles and Practice, S.N.Mishra, S.B.Mishra, S Chand
3. Principles of Insurance Management, Neelam Gulati, Excel Books
4. Legal & Regulatory Aspects of Insurance by NIA
5. Elements of Actuarial Science by NIA
6. Insurance Business Environment & Insurance Company Operations by NIA

7. Financial Management & Insurance Accounting by NIA

Suggested Reference Books:

1. Principles of Risk Management and Insurance, George Rejda, Pearson Education
2. Risk Management and Insurance by Trieschmann

Semester II		224FIN: General Insurance – Health and Vehicle
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Financial Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO224FIN.1	REMEMBERING	RECALL the various terms related to General insurance and Health Insurance.
CO224FIN.2	UNDERSTANDING	Explain risk management in insurance and understanding of the insurance mechanism.
CO224FIN.3	APPLYING	APPLY the knowledge of current information, techniques and practices in all of the major business disciplines.
CO224FIN.4	ANALYSING	ANALYZE and USE risk management techniques.
CO224FIN.5	EVALUATING	COMPARE various kinds of insurance plans as well as the importance of contract in Customers.
CO224FIN.6	CREATING	CREATE valuable insights into overview of General Insurance Products.

1. **General Insurance:** Historical perspective, Conceptual Framework and Meaning of Insurance, Nature and Scope of Insurance, Classification of Insurance Business, How General insurance works, Advantages of General insurance, Types of General Insurance, Principles of Insurance, Insurable interest, Subrogation and Contribution, General Insurance Products in India. **Risk Management Techniques:** Risk avoidance - Risk retention - Risk reduction and control - Risk financing, Difference between Insurance and Assurance, Roll of the actuary. Insurance Contract: Meaning and Fundamental principles of insurance contract, Types of insurance contract, Valid insurance contract, Features of insurance contracts, Reinsurance: foundation of reinsurance – forms of reinsurance, **(5+1)**

2. **Claims Procedure:** Meaning of claim and Importance of settling claims, limitations or notice of loss, Claims Settlement process, Investigation and assessment – Surveyors and loss assessors – Claim forms – Loss assessment and claim settlement - Important Aspects in an insurance claims – categories of claim – Discharge vouchers – Post settlement action – Selvage – Recoveries – Disputes related to claims – Other disputes resolution mechanisms. **Grievance Redressal Mechanism:** Consumer courts, Ombudsman - Integrated Grievance Management System (IGMS) - The Insurance Ombudsman. **(5+1)**

3. **Introduction to Health Insurance:** Definition of Health and Determinants of Health, Factors affecting the health systems in India, Evolution of health insurance in India, Types of Health Insurance **Schemes / Policies** in India, difference between Health Insurance and Mediclaim Insurance, Health insurance regulations of IRDAI. Health Insurance Products, Classification of health insurance products - IRDA guidelines on standardization in health insurance. Documentation for obtaining Health Insurance Policy. **(5+1)**

4. **Health Insurance Underwriting:** Underwriting concepts - definition, meaning and need, Basic Principles of Insurance and tools for underwriting - Underwriting process - Underwriting of overseas travel insurance - Underwriting of personal accident insurance. **Management of Health Insurance Claims:** stakeholders in claim process, Challenges in health insurance – claims process in health insurance - Documentation of health insurance claims – Claims reserving, Personal Accident – Overseas Travel Insurance. **(5+1)**

5. **Motor or Vehicle Insurance:** Meaning and Definition, Types of motor vehicle insurance, Advantages of Motor insurance, what motor insurance covers, Types of Motor Policies, India Motor Tariff – 2018. Third party Insurance, Legal aspects of Third party claims, Frauds in Motor Insurance, No claim Bonus and claim settlement process. Underwriting in motor insurance – Indian Motor Insurance market – Model wise Risk assessment – Motor Underwriting. **(5+1)**

Suggested Text Books:

1. Principles of Insurance Management, Neelam Gulati, Excel Books.
2. Insurance, Principles and Practice, S.N.Mishra, S.B.Mishra, S Chand Publication.
3. Principles of Risk Management and Insurance, George Rejda, Pearson Publication.

Suggested Reference Books:

1. General Insurance Guide, Dr. L.P.GUPTA.
2. Indian Insurance Industry, Transition and Prospects, D.C. Srivastava, Shashank Srivastava, New Century Publications.
3. Insurance and Risk Management, P.K.Gupta, Himalaya Publishing House.

Subject Core (SC) Courses - Semester II
Specialization: Human Resource Management

Semester II		205HRM: Competency Based Human Resource Management System
3 Credits	LTP: 2:1:1	Subject Core (SC) Course – Human Resource Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO205HRM.1	REMEMBERING	DEFINE the key terms related to performance management and competency development.
CO205HRM.2	UNDERSTANDING	EXPLAIN various models of competency development.
CO205HRM.3	APPLYING	PRACTICE competency mapping.
CO205HRM.4	ANALYSING	ANALYSE competencies required for present and potential future job roles at various levels and across variety of organizations.
CO205HRM.5	EVALUATING	DESIGN and MAP their own competency and plan better and appropriate career for themselves.
CO205HRM.6	CREATING	DEVELOP a customized competency model in accordance with the corporate requirements.

- Performance Management System:** Introduction of PMS-Definition, Scope, Importance, Performance Planning – Individual Goal Setting, Linking individual goals to Organization goals, Performance Coaching- Identification of Training Needs- Job Specification, Identify the Performance Gap, Training Specification, Choose appropriate training module, Counselling for Better Performance, Feedback Mechanism in Organization. (6+3)
- Introduction to Competency:** Definition and History of Competency, Basic Components of Competency(Knowledge(K),Skill(S), Attitude(A)), Performance Vs Competency, Difference between Competence and Competency, Type of Competency- Generic Vs Key Competency, Functional and Technical Competency, Leadership and managerial Competency, Need for Competency Framework, Limitation and Learning from Competency Framework, Myth about Competency(6+3)
- Competency Development & its Models:** Need and Importance of Competency Development, Stages in developing Competency Model, Types of Competency Model – Core/Generic, Job Specific, Managerial/Leadership, Custom, Development of Personnel Competency Framework – Lancaster Model of Competency.(5+3)
- Competency Mapping:** Procedures/Steps-Determining objectives and Scope, clarifying implementation goals and standards, create an action plan, define competency based performance effectiveness (Key Result Area (KRA) & Key Performance Indicators(KPI)), tools for data collection, data analysis, validating competency model, mapping future jobs and single incumbent jobs, using competency profile in HR decisions, Mapping Competency for Recruitment and Selection, Training and Development, Performance and Compensation. (7+3)
- Competency Driven Career and Culture:** Role of Competency in Career Progression - Transactional Competency, Tradition Competency and Transformational Competency, Evaluation of Career through KSA (Knowledge, Skill and Attitude) Competency based Succession and Career planning, Corporate Competency driven Culture. (6+3)

Suggested Text Books:

- Competency based HRM, Ganesh Shermon, Tata Mc Graw Hill Publishing
- The handbook of Competency Mapping: Understanding, Designing and Implementing Competency Models in Organizations, Seema Sanghi, Sage Publication Inc

Suggested Reference Books:

- Human Capital Measurement: An Introduction, K Sangeetha ICFAI University
- Competency Mapping, R K Sahu
- Competency Study: Mapping the Future, Paul R Bernthal, ASTD Press
- Human resource Management, K Ashwathappa
- Human Resource Management, L M Prasad
- Human Resource Management, Gary Dessler

Semester II		206HRM: Employee Relations and Labour Legislations
3 Credits	LTP: 2:1:1	Subject Core (SC) Course – Human Resource Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO206HRM.1	REMEMBERING	SHOW awareness of important and critical issues in Employee Relations

CO206HRM.2	UNDERSTANDING	INTERPRET and relate legislations governing employee relations.
CO206HRM.3	APPLYING	DEMONSTRATE an understanding of legislations relating to working environment.
CO206HRM.4	ANALYSING	OUTLINE the role of government, society and trade union in ER.
CO206HRM.5	EVALUATING	EXPLAIN aspects of collective bargaining and grievance handling.
CO206HRM.6	CREATING	DISCUSS the relevant provisions of various Labour Legislations.

- 1. Introduction:** Background of Employee Relations, Concept, definition, scope, objectives, factors, participants & importance of ER, Approaches to employee relations – The Dunlop's approach, The Social Action Approach, The Human Relations Approach and The Gandhian Approach, Labour policies, role of ILO and its influence on legislation in India. **(5+3)**
- 2. Mechanism for harmonious ER:** Collective bargaining - definition, meaning, nature, essential conditions, functions and importance, process and its implementation, Workers participation in management & Problem solving attitude, Grievance, meaning and forms, sources, approaches, procedures, model grievance procedure and grievance handling committees. **(6+3)**
- 3. Legislations governing Employee Relations:** The Industrial Disputes Act 1947 – Definition of industry, workmen and industrial dispute, authorities under the act, procedure, powers and duties of authorities, strikes and lockouts, layoff, retrenchment and closure, The Contract Labour (Regulation and Abolition) Act 1970 – Advisory boards, registration of establishment, Licensing of Contractors, Welfare and health of contract labour, registers and other records to be maintained. **(6+3)**
- 4. Legislation governing Unions and wages:** The Trade Union Act 1926- Formation and registration of Trade Unions, Principle privileges of a registered trade union, rights of recognised trade unions, types and structure of trade unions, impact of globalisation on trade union movement, Maharashtra Recognition of Trade Union and Prevention of Unfair Labour Practices Act 1971 – Unfair labour practices on the part of Employers and Employees, authorities and punishments under the act, Minimum Wages Act 1948 – Definition of wages, fixation and revision of minimum wages, advisory boards and committees, fixing hours for a normal working day, wages for worker who works for less than normal working day, maintenance of registers and records. **(6+3)**
- 5. Legislation governing working environment:** The Factories Act 1948 – Definitions of factory, manufacturing process, worker, occupier; provisions under health, safety and welfare, working hours, annual leave with wages, prohibition of employment of young children, Maharashtra Shops & Establishment (Regulation of Employment and Conditions of Service) Act, 2017 – Scope, Registration of establishments, opening and closing hours, hours of work, interval for rest, spread over, wages for overtime and weekly off, leave with pay and payment of wages and welfare provisions, offences and penalties, Maternity benefit Act, 1961 – Entire Act and latest amendment, The Sexual harassment of women at workplace (Prevention, prohibition and Redressal) Act, 2013 – Definitions of sexual harassment, employee, workplace, complaints committee, complaint mechanism, Aggrieved Woman, Chairperson; Constitution of Internal Complaints Committee, Complaint, Inquiry into complaint, duties of employer. **(7+3)**

Suggested Text Books:

1. Personnel Management, C B Mamoria
2. Dynamics of Personnel Administration, Rudrabaswaraj
3. Personnel Management, Edwin Flippo
4. Industrial and Labour Laws, S. P. Jain

Suggested Reference Books:

1. Guide on Labour Management forms and precedents (Law, Practice and Procedure), S D Puri, Snow white publication
2. Introduction of Labour and Industrial Laws, Avatar Singh
3. Elements of Mercantile Law, N. D. Kapoor, Sultan Chand
4. Bare Acts

Subject Elective (SE) Courses - Semester II
Specialization: Human Resource Management

Semester II		217HRM: Labour Welfare
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Human Resource Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO217HRM.1	REMEMBERING	ENUMERATE the key concepts of the subject matter.
CO217HRM.2	UNDERSTANDING	DESCRIBE the key aspects of the labour policy regulation in the country.
CO217HRM.3	APPLYING	IDENTIFY the applicability of various legislations to variety of real world organizations.
CO217HRM.4	ANALYSING	EXAMINE the traditional concept of labour welfare in the industry.
CO217HRM.5	EVALUATING	EXPLAIN the conditions of labour and their welfare and social security needs in the country.
CO217HRM.6	CREATING	ELABORATE upon the perspective of labour problems and remedial measures in the country.

- 1. Introduction - Evolution of Labor Welfare :** Origin and evolution of Labour Welfare-objectives of Labour Welfare need and importance of L.W, Classification of Labour Welfare, Work agencies of Labour Welfare, Scope of Labour Welfare, Concepts, philosophy and principles of labour welfare, Plans and labour policy in India and Labour Welfare in India. (4+2)
- 2. Labour Legislations in India:** Statutory Welfare Amenities – as per Factories Act, 1948, Plantation Act, 1951, Motor Act 1952, Motor Transport Act. Non-statutory welfare Agencies – Role of Trade Unions, NGOs and Local-self Govt., National Commission on Labour and Labour Welfare, Labour Laws of the Elimination of Child Labour(4+2)
- 3. Agencies of Labour welfare:** Agencies of Labour welfare in India (Central Govt. , State Govt., Employers & Trade-Unions), Labour Welfare Officer: Role, Qualifications, Functions, Duties, Labour Administration in India (4+2)
- 4. Industrial Hygiene & Occupational Health:** Working condition and benefits, Working conditions in the factory-safety and accident prevention, Health and hygiene, Canteen organization and management, Organization of credit and consumer co-operative societies-recreational and educational activities-workers education in India, Functions of Labour welfare officers India. (4+2)
- 5. Problems of Indian labour:** Problems of Women Labour, Problems of Unorganized labour, Problems of Workers education (4+2)

Suggested Text Books:

1. Labour Problem and Social Welfare in India, Memoria, C. B., Kitab Mahal Allahabad
2. Labour Welfare, Trade Unionism and Industrial Relation, Puneekar, S. D. , Himalaya Publishing House, Bombay.
3. Labour Welfare and Social security, Kohli, A. S. and Sarma S. R., Anmol Publications Pvt. Ltd., New Delhi.
4. Child Labour in India, Misra, L., Oxford University Press, New Delhi.
5. Personnel Problems and Labour Welfare, Mathur D. C., Mittal Publication. New Delhi.

Suggested Reference Books:

1. Female Labour in India, Sharma Usha, Mittal Publication New Delhi
2. Aspects of Labour Welfare and Social Security, A.M.Sharma
3. Labour Problems and Social Welfare, R.C. Saxena
4. Labour economics and social welfare, Dr. B.P. Tyag

Semester II		218HRM: Lab in Recruitment and Selection
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Human Resource Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO218HRM.1	REMEMBERING	DESCRIBE the key concepts such as Job Specification, Job description, Recruitment and Selection.
CO218HRM.2	UNDERSTANDING	COMPARE and CONTRAST various methods of Recruitment and Selection.
CO218HRM.3	APPLYING	DEVELOP Job Specifications and Job descriptions in a variety of context.
CO218HRM.4	ANALYSING	ANALYZE various Personality types.

CO218HRM.5	EVALUATING	EXPLAIN the profiling techniques used to test Personality, Aptitude, Competency.
CO218HRM.6	CREATING	COMPILE a list of questions for Recruitment and Selection interviews.

1. **Comparative study of 10 recruitment advertisements** (5 from Newspaper & 5 from job portals) & analysis of the same in the light of : Job Specification/ description, Mode of selection, Other details - Documentation for Recruitment
2. **Profiling Techniques** : Personality, Aptitude, Competency
3. **Interviewing**: Study of Interview modes, List of questions for interviewers, Personal, Telephonic.

Suggested Text Books:

1. Human Resource and Personnel Management, K Aswathappa, Tata McGraw Hill
2. Effective Recruitment and Selection Practices, Alan Nankervis, Robert Compton, Bill Morrissey.
3. Recruitment and Selection (Developing Practice), Chartered Institute of Personnel and Development
4. Successful Interviewing and Recruitment, Rob Yeung, Kogan ,Page Publishers

Semester II		219HRM: Learning & Development
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Human Resource Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO219HRM.1	REMEMBERING	DESCRIBE the key concepts associated with Learning & Development
CO219HRM.2	UNDERSTANDING	EXPLAIN the training process and the various methods of training for various categories of employees in a variety of organizational contexts.
CO219HRM.3	APPLYING	IDENTIFY training needs of various categories of employees in a variety of organizational contexts.
CO219HRM.4	ANALYSING	EXAMINE the impact of training on various organizational and HR aspects.
CO219HRM.5	EVALUATING	EVALUATE the training process of various categories of employees in a variety of organizational contexts.
CO219HRM.6	CREATING	DESIGN a training programme for various categories of employees in a variety of organizational contexts.

1. **Learning**: Nature of learning, Learning-its influence on employee behavior, Learning Process, Learning and HRD, Learning styles, elements and Profile, Types of Learning, Adult Learning, Androgogy, Implementing Learning/HRD needs. Introduction to Training: Definition, Concept, Meaning, Nature, Need for Training and Development, Types of Training, Effective Learning and Training. **(4+2)**
2. **Process of Training**: Identification of job competencies, Training Need Analysis and Assessment, Training for Performance, Steps in Training, Role and Responsibilities of HRD and Training Specialist. **(4+2)**
3. **Designing and Implementation of Training Plan**: Objectives of Designing Training Plan, Budgeting of Training, Trainer and Trainee Identification, Designing Module, Designing and Conducting Specific Training and Development Programme. Methods of Training: Methods & Technique of Training, On Job Training, and Competency based training, Online Training, E-Learning, Multimedia Training, Management Development Program, New Employee Training. **(4+2)**
4. **Evaluation of Training Program**: Introduction, concept & principles, Evaluating Training and Results-Kirkpatrick Model of Evaluation, CIRO of Training, ROT of Training, Cost-Benefit analysis. **(4+2)**
5. **Management Development**: Training and Coaching, Mentoring, Training Practices, Train the trainer, Training for Diversity, Impact of Training on HRD. **(4+2)**

Suggested Text Books:

1. Employee Training & Development, Raymond Noe
2. Training and Development, S K Bhatia
3. The ASTD Training and Development Handbook: A Guide to Human Resource Development, Robert Craig, McGraw-Hill.
4. Creative Training Techniques Handbook, Robert W. Pike, CSP

Semester II		220HRM: Public Relations & Corporate Communications
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Human Resource Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
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CO220HRM.1	REMEMBERING	DESCRIBE the various forms of Corporate Communications from a HR perspective.
CO220HRM.2	UNDERSTANDING	EXPLAIN the role of Public Relations & Corporate Communications in HRM.
CO220HRM.3	APPLYING	PLAN and EXECUTE a PR activity.
CO220HRM.4	ANALYSING	EXAMINE the PR campaign & strategies of real world organizations.
CO220HRM.5	EVALUATING	DEVELOP a strategic communication plan for a real life Corporate communication issue.
CO220HRM.6	CREATING	COMPLIE an analytical report on the PR activities and communication strategies designed & practiced by the organizations and IMPROVE on it.

1. **Public Relations & Corporate Communication** : Introduction to corporate communication, Public relations writing-writing to inform, writing to persuade, Design & lay out, Online public relations (4+1)
2. **Media Relations**: Building maintaining relationship with credibility with media, Developing methodologies for successful practice of media relations (5+1)
3. **Public Relations**: Concept, theory, history & practice of public relations, Importance of PR for HR professionals, PR campaign & strategies for PR, Evaluating PR activities (5+1)
4. **Communication Management** : Presentation skills, Developing strategic communication plan, Synthesizing internal & external initiatives, Event Management (4+1)
5. **Field Study/ Desk Research**: Student along with faculty are expected to study PR activities and communication strategies designed & practiced by the organizations in the area & prepare a report. (7+1)

Suggested Text Books:

1. Public Relations, Phillip Henslowe, Chartered Institute of PR

Suggested Reference Books:

1. Public Affairs in Practice, Stuart Thomson & Stevee John, Chartered Institute of PR
2. Develop your PR Skills, Neil Richardson& Lucy Laville, The Sunday Times,
3. Creativity in PR, Andy Green, Chartered Institute of PR
4. Running a PR Department, Mike Beard, Chartered Institute of PR

Semester II		221HRM: HR Analytics
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Human Resource Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO221HRM.1	REMEMBERING	ENUMERATE the key concepts related to the subject matter.
CO221HRM.2	UNDERSTANDING	DEMONSTRATE experimentation and innovation.
CO221HRM.3	APPLYING	USE thinking & decision making ability beyond the existing capabilities and present environment.
CO221HRM.4	ANALYSING	ANALYSE the behavioral Patterns of an individual & Map the competency- the audit Perspective.
CO221HRM.5	EVALUATING	EXPLAIN the innovative and formulate strategies which enhance innovative skills and Promote Innovation.
CO221HRM.6	CREATING	FORMULATE the linkage between HR Analytics and Business Analytics.

1. **Introduction & Concept**: Disruptive Technological Era: Evolution of Industry Revolution 4.0 and aspect of HR, Big data in HR, understanding of Machine Learning, sensors and cloud computing, Business Intelligence in HR. **(4+2)**
2. **Importance of HR Analytics**: Role and Responsibilities of HR Analytics, Framework of contemporary HR Analytics,- Predictive tools and Applications in solving problems using HR analytics. Gartners Analytics Maturity Model.**(4+2)**
3. **Innovation**: Concept of innovation, Kinds of Innovation, Developing Innovative culture in an organization. HR analytics linkage to business outcomes, Measuring use of HR analytics impact on business outcome **(4+2)**
4. **Strategy Formulation**: Redefining HR Policies and Practices, Robust competency mapping, understanding future of work and workplace, Decision framework. Use of HR analytics in workforce planning: talent acquisition, talent development, talent compensation, talent engagement and retention **(4+2)**
5. **Learning from Analysis**: Case studies and best practices in use of HR Analytics in industry (5 cases) **(4+2)**

Suggested Text Books:

1. Winning on HR analytics: Leveraging data for competitive advantage, Ramesh Soundararajan and Kuldeep Singh, Sage Publication

2. The Practical Guide to HR Analytics: Using Data to Inform, Transform, and Empower HR Decisions Paperback, Shonna D. Waters , Valerie N. Streets , Lindsay Mcfarlane , Rachael Johnson-murray
3. Human Capital Analytics: How to Harness the Potential of Your Organization's Greatest Asset, Boyce Byerly, Gene Pease, and Jac Fitz-enz
4. Doing HR Analytics: A Practitioner's Handbook with R Examples, Lyndon, Mr. Sundmar, Createspace Independent Pub
5. The Power of People: Learn How Successful Organizations Use Workforce Analytics to Improve Business Performance, Guenole Nigel, Ferrar Jonathan, Feinzig Sheri, Pearson Publication

Semester II		222HRM: Conflict & Negotiation Management
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Human Resource Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO222HRM.1	REMEMBERING	DEFINE the key concepts of the subject matter.
CO222HRM.2	UNDERSTANDING	EXPLAIN the negotiation process, Zone of possible agreement (ZOPA) and Best alternative to a negotiated agreement (BATNA)
CO222HRM.3	APPLYING	APPLY the negotiation process, Zone of possible agreement (ZOPA) and Best alternative to a negotiated agreement (BATNA) for successful negotiations.
CO222HRM.4	ANALYSING	APPRAISE the importance of in business negotiations and managing conflicts.
CO222HRM.5	EVALUATING	DEVELOP the logical thinking, communication skills and other prerequisite for successful business negotiations and handling organizational conflict.
CO222HRM.6	CREATING	COMBINE the theoretical concepts practical methods of managing and resolving organizational conflict and negotiation styles in the organizational context.

1. **Fundamentals of Negotiation:** definition: Introduction to the importance of negotiation, its importance and Nature of negotiation, negotiation Vs other interactions, Dimensions of Negotiation, Structure and the prerequisites of successful negotiation, types of negotiation , Strategy & planning of negotiation, four stage model of negotiation. **(4+2)**
2. **Negotiation Process:** Perception & Preparation for the negotiations, goal setting for the negotiation , options and criteria for negotiation, role of Communication & Influence in the negotiation process , Identifying BATNA (Best alternative to a negotiated agreement) and ZOPA (zone of possible agreement) in the negotiation process , Ethics in negotiation, Agreement **(4+2)**
3. **Negotiation styles:** Leigh Thompson's 5 negotiation mental models, importance of establishing trust and building a Relationship in negotiation , Win-Win Negotiation, use of creativity and problem Solving in Negotiations, application of Transactional analysis for negotiations. **(4+2)**
4. **Conflict Management:** Introducing the concept of conflict management, Definition, importance and Models of conflict (Process & Structural), Sources of conflict, analyze the relationship between conflict & performance in team, Advantages & Disadvantages of Conflict. Creating conducive climate to resolve the conflict, apply the fundamentals of conflict management to build teams in the organizations, design the process for conflict management and create the situations to minimize the conflicts in an organizations. **(4+2)**
5. **Types of Conflicts:** understanding the importance of developing mechanism to manage conflicts in the organizations, managing interpersonal and intra personal conflict, and conflict resolution, dealing with difficult subordinates, boss & colleagues, evaluate the organization conflict, analyze the techniques to resolve team conflict, creating the strategies to manage organizational conflict, understand the concept of third party conflict resolution (ADR), demonstrate the use of third party conflict resolution (ADR). Simulation: Case study on best business negotiations and conflict management, Role Play. **(4+2)**

Suggested Text Books:

1. Negotiation: Communication For Diverse Settings, Spangle, Michael L. ; Isenhardt, Myra Warren : Sage Publications
2. The Negotiation Field book Simple Strategies to Help you negating everything, Grande, Lum. New Delhi : TATA MCGRAW HILL Publishing Company Limited
3. Negotiation / Harvard Business Essentials. U S A, Harvard Business Publishing Corporation
4. How to Conduct Effective Negotiations, Forsyth, Patrick Jaico Publishing House
5. Managing Workplace Conflicts, Subbulakshmi, V., Hyderabad : ICFAI University Press
6. The Power of Positive Confrontation : The Skills You Need To Know To Handle Conflicts At Work, At Home And In Life, Pachter, Barbara . Magna Publishing Co. Ltd.

Suggested Reference Books:

1. Getting to Yes: Negotiating Agreement without Giving In, Roger Fisher, William Ury, Bruce Patton
2. Bargaining for Advantage: Negotiation Strategies for Reasonable People, G. Richard Shell
3. Secrets of Power Negotiating: Inside Secrets from a Master Negotiator, Roger Dawson

Subject Core (SC) Courses - Semester II
Specialization: Operations & Supply Chain Management

Semester II		205OSCM: Service Operations Management – I
3 Credits	LTP: 2:1:1	Subject Core (SC) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO205OSCM.1	REMEMBERING	DESCRIBE the nature and CHARACTERISTICS of services and the services economy.
CO205OSCM .2	UNDERSTANDING	DESCRIBE the service design elements of variety of services.
CO205OSCM .3	APPLYING	USE service blueprinting for mapping variety of real life service processes.
CO205OSCM .4	ANALYSING	ANALYSE alternative locations and sites for variety of service facilities.
CO205OSCM .5	EVALUATING	JUDGE and EXPLAIN the service orientation at variety of service facilities / organizations.
CO205OSCM .6	CREATING	CREATE flow process layouts for variety of services.

1. Understanding Services: The Service Economy, Service Definitions, Facilitating Role of Services in an Economy, Economic Evolution, Stages of Economic Development, Nature of the Service Sector, The Experience Economy, Consumer Service Experience, Business Service Experience, Service-Dominant Logic, Distinctive Characteristics of Service Operations - Customer Participation, Simultaneity, Perishability, Intangibility, Heterogeneity, Non-transferrable Ownership. The Service Package, Grouping Services by Delivery Process, Open-Systems View of Service Operations Management. **(7+2)**

2. Designing the Service Enterprise: New Service Development, Sources of Service Sector Growth, Information Technology, The Internet as a Service Enabler, Innovation, Changing Demographics, Innovation in Services, New Service Development, Technology in Service Innovation, Challenges of Adopting New Technology in Services, Readiness to Embrace New Technology, Service Design Elements, Customer Value Equation, Strategic Positioning through Process Structure, Service Blueprinting, Taxonomy for Service Process Design, Degree of Divergence, Object of the Service Process, Type of Customer Contact, Generic Approaches to Service System Design, Production-Line Approach, Customer as Co-producer, Customer Contact Approach, Information Empowerment, Intellectual Property. **(7+2)**

3. The Service Encounter: Concept of the Service Encounter, Role of Technology, The Emergence of Self-Service, The Service Encounter Triad, Encounter Dominated by the Service Organization, Contact Personnel-Dominated Encounter, Customer-Dominated Encounter, The Service Organization, Culture, Empowerment, Control Systems, Customer Relationship Management, Contact Personnel - Selection & Training, Creating an Ethical Climate. The Customer Expectations and Attitudes, The Role of Scripts in Coproduction, Creating a Customer Service Orientation, Service Profit Chain. **(7+2)**

4. Service Facility Location: Strategic Location Considerations, Competitive Clustering, Saturation Marketing, Marketing Intermediaries, Substitution of Communication for Travel, Separation of Front from Back Office, Impact of the Internet on Service Location, Site Considerations, Geographic Information Systems, Facility Location Modeling Considerations, Geographic Representation, Number of Facilities, Optimization Criteria, Facility Location Techniques, Cross-Median Approach for a Single Facility, Huff Model for a Retail Outlet, Location Set Covering for Multiple Facilities, Regression Analysis in Location Decisions. **(7+2)**

5. Service Facility and Process Flows: Environmental Psychology and Orientation, Servicescapes, Behaviors in Servicescapes, Environmental Dimensions of Servicescapes, Facility Design, Nature and Objectives of Service Organizations, Land Availability and Space Requirements, Flexibility, Security, Aesthetic Factors, The Community and Environment. Process Analysis, Types of Processes, Flowcharting, Gantt Chart, Process Terminology, Facility Layout, Flow Process Layout and the Work Allocation Problem, Job Shop Process Layout and the Relative Location Problem. **(7+2)**

Suggested Text Books:

1. Successful Service Operations Management, Metter, King–Mettters, Pulliman& Walton, Thomson India
2. Service Management, Fitzsimmons and Fitzsimmons, Irwin/McGraw-Hill
3. Services Marketing Operations and Management, Vinnie J Juhari, Kirti Dutta, Oxford University Press
4. Services Sector Management An Indian Perspective, C. Bhattacharjee
5. Services Business Management, Dr. Abhay Kulkarni, Himalaya Publication.

Suggested Reference Books:

1. Service operations management - Improving service delivery, Robert Johnston, Graham Clark, Pearson Publication
2. Baldrige – Just What the Doctor Ordered, Quality Progress, Nelson

Semester II		206OSCM: Supply Chain Management
3 Credits	LTP: 2:1:1	Subject Core (SC) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO206OSCM.1	REMEMBERING	DESCRIBE the key concepts of Supply Chain Management and the – driving forces in contemporary Supply Chain Management.
CO206OSCM.2	UNDERSTANDING	EXPLAIN the structure of modern day supply chains.
CO206OSCM.3	APPLYING	IDENTIFY the various flows in real world supply chains.
CO206OSCM.4	ANALYSING	COMPARE and CONTRAST push and pull strategies in Supply Chain Management.
CO206OSCM.5	EVALUATING	EXPLAIN the key Operational Aspects in Supply Chain Management.
CO206OSCM.6	CREATING	DISCUSS the relationship between Customer Value and Supply Chain Management.

1. **Supply Chain Structure:** Shift from enterprise to network, Structure of a SC, Push based SC, Pull based SC, Tradeoff between Push & Pull, Identifying appropriate Push & Pull Strategy for SC, Commodity & cost centric SC, Agile SC **(7+2)**
2. **Flows in SC:** Forward & Reverse SC, Product, Services, Information, Funds, Demand, Forecast flows in Upstream & Downstream direction **(7+2)**
3. **Total SCM:** Changing business landscape – driving forces: Shift from Operations to Services, Impact of globalization & technological revolution, Shift from linear SC to collaborative networks, power shifts in the SC- demands for flexibility of partnerships, core competencies, growth in outsourcing, Increased complexity of processes **(7+2)**
4. **SCM Building Blocks:** Overview of customer focus & demand, resources & capacity management, procurement & supplier focus, inventory management, operations management, distribution management in SCM. Key Operational Aspects in SC: Creating the Lean SC – JIT Purchasing, JIT Transportation and JIT Production. Kanban, VMI. **(7+2)**
5. **Customer Value:** Empowered consumer, Customer focused Marketing & SC service outputs, customer service – availability, operational performance, reliability. Customer satisfaction – customer expectations, enhancing customer satisfactions, limitations of customer satisfaction. Customer success – achieving customer success, value added services, customer value requirement mapping, CRM. **(7+2)**

Suggested Text Books:

1. Supply Chain & Logistics Management, Bowersox, Closs & Cooper, Tata McGraw Hill
2. Designing & Managing the SC – Concepts, Strategies & Case studies, Levi, Kaminsky et. al., Tata McGraw Hill
3. Supply Chain Management: Strategy Planning & Operations, Sunil Chopra, Peter Meindl, Pearson

Suggested Reference Books:

1. Supply Chain Management Process, System & Practice, N.Chadraseskaran, Oxford
2. Total Supply Chain Management, Basu & Wright, Elsevier
3. Logistics Management & Strategy, Harrison and van Hoek, Prentice Hall
4. Supply Chain Management, Mentzer, Response Books.
5. Logistics Management: The Supply Chain Imperative, Vindo Sople, Pearson Education.

Subject Elective (SE) Courses - Semester II
Specialization: Operations & Supply Chain Management

Semester II		217OSCM: Planning & Control of Operations
2 Credits	LTP: 1:1:1	Subject Elective (SE) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO217OSCM.1	REMEMBERING	DESCRIBE the building blocks of Planning & Control of Operations.
CO217OSCM.2	UNDERSTANDING	EXPLAIN the need for aggregate planning and the steps in aggregate planning.
CO217OSCM.3	APPLYING	MAKE USE OF the various forecasting approaches in the context of operations planning process.
CO217OSCM.4	ANALYSING	ILLUSTRATE how capacity planning is done in organizations and its relationship with MRP.
CO217OSCM.5	EVALUATING	EXPLAIN the importance of scheduling in operations management.
CO217OSCM.6	CREATING	CREATE a Bill of Materials.

- 1. Planning & Control of Operations:** Need, Functions - Routing, Scheduling, shop loading and dispatch, follow up. Relations with other departments, Routing-Process layout indicating flow Chart of material from machine to machine. Dispatch in production control-documentation. **(5+1)**
- 2. Demand Forecasting:** Forecasting as a planning tool, Why do we forecast, Forecasting time horizon, Design of forecasting systems, Developing the logic of forecasting, Sources of data, Models for forecasting, Extrapolative methods using time series, Causal methods of forecasting, Accuracy of forecasts, Using the forecasting system. **(5+1)**
- 3. Aggregate Production Planning:** Planning Hierarchies in operations, Aggregate Production planning, Need for Aggregate Production planning, Alternatives for managing demand, Alternatives for managing supply, Basic strategies for aggregate production planning, Aggregate production planning methods, Master Production Scheduling. **(5+1)**
- 4. Resources Planning:** Dependent Demand Attributes, Planning a framework – the basic building blocks: Multiple levels in products, Product Structure, The Bill of Materials, Time phasing of the requirements, Determining the Lot Size, Incorporating Lead time information, Establishing the planning premises. MRP Logic, Using the MRP system, Capacity Requirements planning, Manufacturing Resources Planning (MRP II), Enterprise Resource Planning (ERP), Resource Planning in services. **(5+1)**
- 5. Scheduling of Operations:** Need for Scheduling, Scheduling – Alternative terms, Loading of machines, Scheduling Context, Scheduling of Flow Shops, Scheduling of Job Shops, Input-Output Control, Operational Control Issues in Mass production systems. **(5+1)**

Suggested Text Books:

1. Operations Management: Theory and Practice, B Mahadevan, Pearson.
2. Operations Management, Terry Hill, Palgrave
3. The Fundamentals of Production Planning and Control, Stephen Chapman, Pearson
4. Operations Now, Byron Fitch, TMGH.

Semester II		218OSCM: Productivity Management
2 Credits	LTP: 1:1:1	Subject Elective (SE) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO218OSCM.1	REMEMBERING	DEFINE various types of productivity and measures of productivity.
CO218OSCM.2	UNDERSTANDING	DEMONSTRATE the linkages between various measures of productivity.
CO218OSCM.3	APPLYING	APPLY Value Analysis and Value Engineering principles to simple situations related to operations management.
CO218OSCM.4	ANALYSING	APPLY various types of charts and diagrams to carry out work study and method study.
CO218OSCM.5	EVALUATING	DETERMINE the Standard Time using Techniques of Work Measurement.
CO218OSCM.6	CREATING	ELABORATE upon the concepts of JIT, Lean, 5S, TPM, BPR, Six Sigma, World Class manufacturing.

- 1. Introduction:** Importance and significance of productivity, Productivity concepts – Macro and Micro factors of productivity, productivity from product and service perspective, different inputs and productivity measures, Various ratios related to finance, material and service. **(3+1)**
- 2. Value Analysis and Value Engineering:** Concept of Cost, Price and Value, Role in Productivity, Procedure – Application and productivity benefit model. **(3+1)**
- 3. Work Study:** Importance of work study – Method Study and Work Measurement – Pioneers of Performance Measurement. **Method Study:** Need for Method Study – Procedure of Method Study –Process Flow charts, Man machine diagrams ,Principles of Motion Economy. **(6+1)**
- 4. Work Measurement:** Techniques of Work Measurement including Estimating, Stopwatch Time Study, Predetermined Time Standards, Synthetic Estimates of Work, Times, Activity Sampling. Computation of Standard Time – Elements – Types of Elements – Performance Rating – Allowances – Need for Allowances – Types of Allowances. **(8+1)**
- 5. Advanced Methods of Productivity and service level enhancements:** Overview of JIT, Lean, 5S, TPM, BPR, Six Sigma, World Class manufacturing, Use of Technology in productivity and service enhancements: ITes, CAD, CAM, CIM, CMMI. **(5+1)**

Suggested Text Books:

1. Productivity Measurement for Business Excellence, Prem Vrat, G.D. Sardana, B.S. Sahay, Narosa Publishing House.
2. Operations Management for Competitive Advantage, Richard B Chase, Jacobs, Aquilano, Agarwal,
3. Introduction to Work Study, Editor - Geirge Kanawaty, Universal Publishing
4. Production and Operations Management, S.N.Chary, TMGH

Semester II		219OSCM: Inventory Management
2 Credits	LTP: 1:1:1	Subject Elective (SE) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO219OSCM.1	REMEMBERING	DEFINE the key terms associated with Inventory Management.
CO219OSCM.2	UNDERSTANDING	CLASSIFY various types of inventory, and inventory costs.
CO219OSCM.3	APPLYING	CALCULATE Economic Order Quantity and stock levels under various conditions.
CO219OSCM.4	ANALYSING	COMPARE and CONTRAST various methods of inventory control.
CO219OSCM.5	EVALUATING	ASSESS various factors influencing Make or Buy decisions.
CO219OSCM.6	CREATING	SOLVE problems based on ABC classification of inventory.

- 1. Elements of Inventory Management:** Inventory concepts, Pressures for Low Inventory, Pressures for High Inventory, Role of inventory in Operations, Types of inventory – seasonal, decoupling, cyclic, pipeline, Safety stock. Inventory costs – carrying costs, ordering costs, shortage costs. **(5+1)**
- 2. Inventory Control systems:** Continuous Review (Q) systems, Periodic Review (P) systems, ABC Classification system, Issues in the P and Q systems of inventory control. **(5+1)**
- 3. Economic Order Quantity Models:** The Basic EOQ Model, Production Quantity Model, Computer Solution of EOQ model with MS Excel, Quantity Discounts, Computer Solution of Quantity Discounts model with MS Excel, Reorder Point, Safety Stocks, Service Level, Reorder point with variable demand, Computer Solution of Reorder point with MS Excel, Order quantity for periodic inventory system, Order quantity with variable demand, Computer Solution of fixed period model with MS Excel. **(5+1)**
- 4. Just-In-Time:** Principles of just-in-time, Core logic of JIT, Main features for stocks, Achieving just-in-time operations, Other effects of JIT, Benefits and disadvantages of JIT, Comparison with other methods of inventory management. KANBAN as a control tool. Vendor managed inventory. **(5+1)**
- 5. Make Or Buy Decisions:** Factors influencing Make Or Buy Decisions–cost, quality, capacity core v/s noncore, management strategy. Evaluation of performance of Materials function: cost, delivery, quality, methodology of evaluation, Use of ratios - inventory ratios, inventory analysis like ABC, FSN: Fast slow, Nonmoving, HML-High Medium, Low, XYZ. Materials Management In JIT Environment. **(5+1)**

Suggested Text Books:

1. Operations Management: Theory and Practice, B Mahadevan, Pearson.
2. Operations Management-Process and Value Chains, Krajewski, Ritzman, Malhotra, Pearson.
3. Operations Management: Quality and Competitiveness in a Global Environment, Russell and Taylor, Wiley India.

Suggested Reference Books:

1. Introduction to Materials Management, J.R.Tony and Arnold.
2. Inventory Control and Management, Donald Waters, Wiley Student Edition.

3. Just-in-Time Manufacturing, Korgaonker, Macmillan
4. Essentials of Inventory Management, Max Muller, JAICO Publishing

Semester II		220OSCM: Theory of Constraints
2 Credits	LTP: 1:1:1	Subject Elective (SE) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO220OSCM.1	REMEMBERING	DEFINE the key concepts of TOC.
CO220OSCM.2	UNDERSTANDING	DEMONSTRATE knowledge & understanding of the fundamentals of TOC.
CO220OSCM.3	APPLYING	IDENTIFY and mitigate both real constraints and managerial constraints.
CO220OSCM.4	ANALYSING	ILLUSTRATE the tools and techniques that help in managing constraints to improve organizational performance.
CO220OSCM.5	EVALUATING	EXPLAIN the benefits an organization may reap through the successful implementation of the TOC.
CO220OSCM.6	CREATING	DEVELOP solutions to common problems in Project Management, Operations Management and Supply Chain Management using TOC principles and methods.

1. **Thinking Process:** Introduction to Theory of Constraints (TOC), Tools of TOC, Where is TOC applicable? What is a constraint, TOC's thinking process and Human Being, Terminology used in the thinking process, Steps to implement in the thinking process, Current Reality Tree, Conflict Resolution Diagram, Future Reality Tree, Prerequisite Tree, Transition Tree, Three Cloud Method. **(5+1)**
2. **Finance and Measures:** Economic Decisions, TOC and Product Costing, Economic Decisions using TOC Costing. **(5+1)**
3. **Project Management:** Phases of Project Management, Common problems in Project Environment, Critical Chain project Management – A TOC approach. **(5+1)**
4. **Drum-Buffer-Rope Solution:** Introduction, The Drum – The MPS of the Capacity Constraint Resource, Implementing Drum-Buffer-Rope, Implementing Drum-Buffer-Rope on the shop floor, MPS using Drum-Buffer-Rope Scheduling method. **(5+1)**
5. **Theory of Constraints in Supply Chain Management:** Introduction, TOC in distribution Solution, Drum-Buffer-Rope in distribution. **(5+1)**

Suggested Text Books:

1. Theory of Constraints by S K Mukhopadhyay, Jaico Books.
2. The Goal by E M Goldratt and Cox J, Great Barrington, North River

Suggested Reference Books:

1. What is the thing called Theory of Constraints? by E M Goldratt, Great Barrington, North River
2. It's Not Luck by E M Goldratt, Great Barrington, North River
3. Essays on Theory of Constraints by E M Goldratt, Great Barrington, North River
4. Critical Chain by E M Goldratt, Great Barrington, North River

Semester II		221OSCM: Quality Management Standards
2 Credits	LTP: 1:1:1	Subject Elective (SE) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO221OSCM.1	REMEMBERING	DESCRIBE the concepts of Quality and importance of the Quality Management Principles.
CO221OSCM.2	UNDERSTANDING	INTERPRET the requirements of ISO 9001:2015 standard.
CO221OSCM.3	APPLYING	APPLY process based thinking and risk based thinking for managing and improving the functioning of an organization.
CO221OSCM.4	ANALYSING	TAKE PART IN planning, conducting and follow-up of QMS audits directed towards maintenance and continual improvements of the QMS.
CO221OSCM.5	EVALUATING	DEVELOP skills for Corrective Action Management and Continual Improvement Project management.

CO221OSCM.6	CREATING	BUILD stakeholder confidence by managing processes in line with the latest requirements.
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- Quality Management Systems:** Quality, Quality Concepts, Concepts and Characteristics of Quality as a Business Imperative, Quality Management Systems Map, Advantages of the Quality Management Systems, Process approach, Seven Quality Management Principles, Organization and its Context, Needs and Expectations of Interested Parties. Need for Quality Management System, Management System Standards (MSS), High Level Structure (HLS), Integrated Management Systems, Risk Management, How processes affect each other, The Plan – Do – Check (Study) – Act Cycle (PDCA) and terminology; PDCA and its relation in business processes, Quality Policy and Objectives at all functions and levels. **(5+1)**
- ISO Standards:** QMS: ISO 9001 Useful Terms, ISO Supporting Standards, Understanding the terms and definitions of the ISO 9001: 2015 standard, Broad overview of the requirements of ISO 9001: 2015, The principles, structure and language of ISO 9000 and ISO 9001, Applying the ISO 9001: 2015 standard when developing and implementing a QMS. **(5+1)**
- Documentation and Implementation Planning:** Phased Approach Method and Tools, Executive and Management Overview, Planning, Gap Assessment and Planning, Documentation, Implementation and Training, Internal Assessment and Management Review, 3rd Party Registration Assessment, Sustain and Continual Improvement. **(5+1)**
- Risk Assessment:** Concept and principles of Risk Assessment, Risk Based Thinking and Management Responsibility within an effective QMS, Applying the Framework of Risk Assessment, Understand the differences between the different techniques - Root Causal Analysis, Failure Modes and Effects Analysis (FMEA), Hazard Analysis and Critical Control Points (HACCP), Capability Index. **(5+1)**
- Internal Audit :** Understanding and application of Internal Audit Process requirements, Planning the Audit, Scheduling the Audit, Preparing the Audit, Conducting the Audit, Documenting Audit Findings, Reporting Audit Findings, Corrective Action Follow-up, Auditing practices and techniques, Role plays and/or scenarios to relevant field, The personal and interpersonal skills and competencies required for auditing. **(5+1)**

Suggested Text Books:

- Mastering ISO 9001:2015: A Step-By-Step Guide To The World's Most Popular Management Standard, Gregory Peckford
- Understanding ISO 9001: 2015 Quality Management System, Virendra Kumar Gupta
- ISO 9001: 2015 - A Complete Guide to Quality Management Systems, Itay Abuhav
- Operations Management: An Integrated Approach, Danny Samson and Prakash Singh, Cambridge University Press.
- Managing Quality, Barrie G Dale, Ton van der Wiele and Jos van Iwaarden (Editors), Blackwell Publishing
- ISO 9001:2015 Standard

Semester II		222OSCM: Service Value Management
2 Credits	LTP: 1:1:1	Subject Elective (SE) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO222OSCM.1	REMEMBERING	DEFINE the core concepts related to Service Value Chain, Service Profit Chain, Innovation, CRM, networks.
CO222OSCM.2	UNDERSTANDING	ILLUSTRATE managing the service process through service value chain.
CO222OSCM.3	APPLYING	IDENTIFY factors influencing Innovation and service organizational design.
CO222OSCM.4	ANALYSING	EXAMINE the inter-relationships between the Focal firm, Supplier Networks, Distribution Networks, etc.
CO222OSCM.5	EVALUATING	EVALUATE the role of Business Networks as partners in value creation.
CO222OSCM.6	CREATING	DEVELOP strategies built on Principles of Service Value Chain & Service Profit Chain for various types of organizations.

- Basic Concepts, Value, Value Processes,** Creating service value, Defining the benefit part of service value- the service product, Value creation by services marketing, Evaluating internal customer value leading to external customer satisfaction, Costing of Services- Defining the cost part of service value: service pricing, Delivering service value - Managing service delivery. **(5+1)**
- Service Value Chain & Service Profit Chain:** Introduction, Definitions, Significance, Managing the service process through service value chain, service value chain and service profit chain, Key elements of service profit chain – customer loyalty and satisfaction, understanding value from customer perspective, dream team cycle. **(5+1)**

3. **Value Chain Service Innovations:** Introduction, Components, Types, Models, Processes of Innovation, Evolution and Characteristics of Innovation Management, Key drivers, Factors influencing Innovation, Organizing for Innovation, Factors influencing service organizational design, Developing Innovation Strategy. **(5+1)**
4. **Managing Networks:** What is a Network? Business Networks, Network Position, Concept of Focal firm, Business Networks and CRM, Supplier Networks, Distribution Networks, Management of Networks, Supplier Relationships, Product Development, Supplier Accreditation Programmes, Process Alignment, E Procurement, Partners in Value Creation, Alliance between non-competing firms, Alliance between competing firms, Benchmarking Partners, Customer Advocacy groups, Sponsors, Partners in Value Delivery. IT Enabled Customer Services - Call Centre Operations and Management, Web-enabled Services, ERP enabled Field and Technical Support Services, Tele marketing and servicing. **(5+1)**
5. Case Studies related to Service Value Chain in Banking & Insurance, Hospital and Health Care, Travel & Tourism, Hotel & Catering, Retail and Contractual Services. **(5+1)**

Suggested Text Books:

1. Service Profit Chain: How Leading Companies Link Profit and Growth to Loyalty, Satisfaction and Value, W. Earl Sasser , Leonard A. Schlesinger, James L. Heskett
2. Competitive Advantage, Porter, Michael E, The Free Press. New York.
3. Strategic Management: a Methodological Approach, Rowe, Mason, Dickel, Mann, Mockler; Addison-Wesley

Subject Core (SC) Courses - Semester II
Specialization: Business Analytics

Semester II		205BA: Basic Business Analytics using R
3 Credits	LTP: 2:1:1	Subject Core (SC) Course – Business Analytics

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO205BA.1	REMEMBERING	IDENTIFY opportunities for creating value using business analytics and DESCRIBE the basic concepts in Business Analytics, DATA Science and Business Intelligence.
CO205BA.2	UNDERSTANDING	EXPLAIN the applications of Business Analytics in multiple business domains and scenarios.
CO205BA.3	APPLYING	DEVELOP a thought process to think like a data scientist/business analyst.
CO205BA.4	ANALYSING	ANALYZE data graphically by creating a variety of plots using the appropriate visualization tools of R.
CO205BA.5	EVALUATING	INTERPRET various data types and structures for given analytics task
CO205BA.6	CREATING	COMBINE various tools and functions of R programming language and use them in live analytical projects in multiple business domains and scenarios.

- Business Analytics Basics:** Definition of analytics, Evolution of analytics, Need of Analytics, Business analytics vs business analysis, Business intelligence vs Data Science, Data Analyst Vs Business Analyst, Types of Analytics, Tools for Analytics. Concept of insights. Importance of data in business analytics, Differences between data, information and knowledge, various stages of an organization in terms of data maturity, Options for organizations in the absence of good quality data. **(5+1)**
- Analytical decision-making:** Analytical decision-making process, characteristics of the analytical decision-making process. Breaking down a business problem into key questions that can be answered through analytics, Characteristics of good questions, Skills of a good business analyst, Overview of Business analytics applications in - Marketing Analytics, HR Analytics, Supply Chain Analytics, Retail Industry, Sales Analytics, Web & Social Media Analytics, Healthcare Industry, Energy Analytics, Transportation Analytics, Lending Analytics, Sports Analytics and Technical/Stock Analytics. Future of Business Analytics. **(5+1)**
- Fundamentals of R:** R environment, Downloading and Installing R, Using command line in R, Help, File operations in R -Reading from and Writing to a file, Writing your first code in R, Importing data from spreadsheets, text files, SAS, SPSS, Connect to RDBMS from R using ODBC, basic SQL queries in R, Exploration and transformation activities, basics of Web Scraping. **(6+1)**
- Data types & Data Structures in R:** Data types in R and its appropriate uses, Program Structure in R, Flow Control: For loop, If condition, While conditions and repeat loop, Debugging tools, Concatenation of Data, Combining Vars , cbind, rbind, Sapply, apply, tapply functions, Built-in functions in R like: seq(), cbind (), rbind(), merge(), knowledge on the various subsetting methods, summarize data by using functions like: str(), class(), length(), nrow(), ncol(), use of functions like head(), tail(), for inspecting data, summarize data, SQL join in R. Introduction to Data Structure in R, Vectors, Lists, Scalars, Data Frames, Matrices, Arrays, Factors, Use of data structures in different conditions, Advantage of using a particular approach. **(10+3)**
- Data Visualization:** Concept of Data Visualization, Popular Data Visualization tools, Exploratory Data Analysis(EDA), Data Cleaning, Data Inspection, uses of the functions like grepl(), grep(), sub(), summarize(), llist(), Using graphical functions in R for data visualization, Line Plots, Bar Plots, Bar Plots for Population, Pie chart, tableplot, histogram, Plotting with base graphics, Plotting with Lattice graphics, Plotting and coloring in R. Customizing Graphical Parameters to improvise plots, understanding GUIs like Deducer and R Commander, introduction to Spatial Analysis. **(10+3)**

Suggested Self Learning Courses : Basic and advanced Business Analytics, data mining and python courses on swayam platform - <https://swayam.gov.in/>, Courses on Business Forecasting

Suggested Text Books:

- R for Business Analytics, A Ohri
- Data Analytics using R, Seema Acharya, TMGH
- Data mining and business analytics with R, Johannes Ledolter. New Jersey: John Wiley & Sons.
- Data Mining for Business Intelligence, Concepts, Techniques and Applications, Shmueli, Patel, and Bruce: Wiley
- Business Analytics Using R - A Practical Approach, Dr. Umesh R. Hodeghatta, Umesha Nayak

Suggested Reference Books:

1. Statistical data analysis explained: applied environmental statistics with R, Clemens Reimann. Chichester: John Wiley and Sons
2. Data science in R: a case studies approach to computational reasoning and problem solving, Deborah Nolan. Boca Raton: CRC Press
3. The analytics revolution: how to improve your business by making analytics operational in the big data era, Bill Franks. Hoboken: Wiley
4. Taming the big data tidal wave: finding opportunities in huge data streams with advanced analytics, Bill Franks. Hoboken: John Wiley & Sons.
5. Big data, big analytics: emerging business intelligence and analytic trends for today's business, Michael Minelli. Hoboken: John Wiley & Sons

Semester II		206BA: Data Mining
3 Credits	LTP: 2:1:1	Subject Core (SC) Course – Business Analytics

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO206BA.1	REMEMBERING	DEFINE the key terms associated with Data Mining
CO206BA.2	UNDERSTANDING	EXPLAIN the various aspects of Data
CO206BA.3	APPLYING	APPLY classification models
CO206BA.4	ANALYSING	Analyse data using various clustering models
CO206BA.5	EVALUATING	SELECT appropriate association analysis and anomaly detection tools.
CO206BA.6	CREATING	COMBINE various data mining tools and use them in live analytical projects in business scenarios.

1. **Basic Concepts:** Concept, Definitions and Need of Big Data, Data Mining, Business Intelligence. Data Mining Process, relation to Business Intelligence techniques. Introduction to Data Mining Tasks (Classification, Clustering, Association Analysis, Anomaly Detection). Concept, Definitions of model, descriptive models, predictive modeling, basic terminology. Real-world data mining applications - Big Data Analytics in Mobile Environments, Fraud Detection and Prevention with Data Mining Techniques, Big Data Analytics in Business Environments. **(6+1)**
2. **Data and Preprocessing:** Understanding of Data, what is data? Types of attributes, properties of attribute values, types of data, data quality, Sampling, Data Normalization, Data Cleaning, Similarity Measures, Feature Selection/Instance Selection, the importance of feature selection/instance selection in various big data scenarios. **(7+1)**
3. **Classification:** Decision-Tree Based Approach, Rule-based Approach, Instance-based classifiers, Support Vector Machines, Ensemble Learning, Classification Model Selection and Evaluation, Applications: B2B customer buying stage prediction, Recommender Systems. **(9+1)**
4. **Clustering:** Partitional and Hierarchical Clustering Methods, Graph-based Methods, Density-based Methods, Cluster Validation, Applications: Customer Profiling, Market Segmentation. **(9+1)**
5. **Association Analysis:** Apriori Algorithm and its Extensions, Association Pattern Evaluation, Sequential Patterns and Frequent Subgraph Mining, Applications: B2B Customer Buying Path Analysis, Medical Informatics, Telecommunication alarm diagnosis. **Anomaly Detection:** Statistical-based and Density-based Methods, Ethics of data mining, privacy, what can/do firms know? **(9+1)**

Suggested Self Learning Courses : Basic and advanced data mining and python courses on swayam platform - <https://swayam.gov.in/>

Suggested Text Books:

1. Data Mining: The Textbook by Charu C. Aggarwal
2. Data Science for Business by Foster Provost and Tom Fawcett, O'Reilly
3. Introduction to Data Mining by Pang-Ning Tan, Michael Steinbach, Vipin Kumar, Addison Wesley
4. Data Mining and Analysis: Fundamental Concepts and Algorithms by Mohammed J. Zaki and Wagner Meira

Subject Elective (SE) Courses - Semester II
Specialization: Business Analytics

Semester II		217BA: Marketing Analytics
2 Credits	LTP: 1:1:1	Subject Elective (SE) Course – Business Analytics

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO217BA.1	REMEMBERING	DESCRIBE the use of Voice of the Customer data in making data driven marketing decisions.
CO217BA.2	UNDERSTANDING	DEMONSTRATE an understanding of utility theory to measure customer preferences and choices.
CO217BA.3	APPLYING	IDENTIFY what customers’ value in a product, and assess what they are willing to pay for it.
CO217BA.4	ANALYSING	ILLUSTRATE the use of various tools and frameworks to solve strategic marketing problems using marketing data.
CO217BA.5	EVALUATING	DETERMINE the most effective target markets.
CO217BA.6	CREATING	DESIGN a study that incorporates the key tools of Marketing Analytics.

- Segmentation Analytics:** Market Segmentation Variables, Market Segmentation Types, Marketing Data Landscape, Data for Segmentation, Analytics for Need Based Segmentation - Voice of the Customer, Managing “Voice of the Customer” Data, Customer Co-Creation, RFM Analysis, Life Cycle Segmentation, Cross Tabulation Segmentation, Regression based segmentation, Clustering, Conjoint Analysis Segmentation, The Cluster Analysis + Discriminant Analysis Approach, **(5+1)**
- Approaches to Choosing Target Segment/s:** Rationale for Segment Targeting, Analytics for Perceptual Mapping and Product Positioning, Product Positioning, Multi Dimensional Scaling (MDS) and Factor Analysis, Relevance of Mapping for Product Positioning, Preference Mapping, Incorporating Preferences in Perceptual Mapping. **(5+1)**
- Analytics for Product/Service Design:** The Relevance of Trade-off Approaches, Conjoint Analysis, Approaches to Conjoint Analysis, Interpreting Conjoint Results, Optimizing Design using Conjoint Results. **(5+1)**
- Analytics for Tracking Customer Growth:** Rationale for Customer Analytics, Customer acquisition cost, Customer Churn, Customer Attrition models, Customer lifetime value, Net promoter score, Calculating the number of new customers, Calculating average customer age & Days to convert, Calculating customer acquisition cost & Average purchases, Calculating touch points & Lead conversion, Analyzing age demographics, First contact with customer, Customer satisfaction, Understanding customer engagement, Diffusion Models - The Bass Model. **(5+1)**
- Modeling New Marketing Initiatives:** Introduction to modeling, Evaluating new ad channels, Modeling tips and best practices, Projecting ad revenue, Projecting organic follower revenue, Projecting expenses, Calculating net profit and breakeven, Understanding ROI, Calculating returns, Creating a single-variable sensitivity table, Creating a multi-variable sensitivity table. **(5+1)**

Suggested Text Books:

- Marketing Analytics: Data-Driven Techniques with Microsoft Excel, Wayne L. Winston
- Marketing Analytics: Strategic Models and Metrics, Stephan Sorger
- Marketing Analytics: A Practical Guide to Improving Consumer Insights Using Data Techniques, Mike Grigsby
- Cutting-edge Marketing Analytics: Real World Cases and Data Sets for Hands on Learning, Paul Farris, Rajkumar Venkatesan, and Ronald T. Wilcox

Semester II		218BA: Retailing Analytics
2 Credits	LTP: 1:1:1	Subject Elective (SE) Course – Business Analytics

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO2018BA.1	REMEMBERING	ENUMERATE the characteristics, opportunities and challenges of New Age Retailing and Digital Consumers.
CO2018BA.2	UNDERSTANDING	UNDERSTAND Consumer Buying Behavior and Trends in new age retailing.
CO2018BA.3	APPLYING	USE various kinds of data for performing Retailing Analytics.
CO2018BA.4	ANALYSING	ILLUSTRATE the use of various tools and frameworks for predictive retail analytics.

CO2018BA.5	EVALUATING	DERIVE a variety of metrics and quantify key outcomes in multiple areas of Retail.
CO2018BA.6	CREATING	BUILD value for Retail and Marketing by deriving Marketing ROI metrics..

- Retailing in the Digital Era:** New Age Retailing, Digital Consumers Characteristics – interconnected , involved, interconnected, co-creation, collaboration, Customer Data – Big Data, Business Analytics, Customer Insights, Data Characteristics - Variety, Volume, Velocity, Veracity. Critical issues in Modern day Retail, The Digital organization, Retail analytics for decision making, Informed and Risk-Aware Decisions , Benefits of Retail Analytics – Informed Decisions, Risk mitigation, Gaining visibility , Retail Analytics for Strategic – Tactical and Operational decisions. **(3)**
- Marketing in a Consumer-Driven Era:** Understanding Consumer Buying Behavior and Trends , Leveraging customer data, Putting information in context, Clicking with consumer communities, Keeping content in mind, From personalization to commerce. **(3)**
- Key Questions:** What they are buying, Who they are, How they are buying, Where else they are buying? **(3)**
- Data sources:** Customer, Retailer, Supplier, Market, Web, Mobile, Social, Call Centres,. **(3)**
- Looking at Unstructured Data:** The unstructured data challenge, Recognizing the untapped analytics opportunity, Customer-Driven Decision Making, Content Analytics in Action, Understanding Affinities between Products and Customers, Advanced affinity analysis, Market basket analysis, Understanding customer preferences , Anticipating the customer’s next move, Improving Retail Promotions. **(3)**
- Merchandising Analytics:** Assortment planning , GeoSpatial Analytics, Product placement, Space Optimisation, Product adjacency, Aligning store-level assortment with demand, Category Intelligence, Developing dynamic retail assortments, Prioritization of Product categories. **(3)**
- Marketing Analytics:** Marketing Mix ROI, Promotions – Promotional Maturity Curves, Pricing – Price per segment, Margin, Profitability, Personalisation, Campaigns, Marketing Return Curves, Scenario Analysis, Driving better P&L analyses, Managing Incentive Compensation. **(3)**
- Supply Chain Analytics:** Creating a Demand-Driven Supply Chain, Gaining Visibility across the Supply Chain, Resolving Operations Problems Premptively , Logistics, Inventory, Supplier performance, Demand forecasting, Vendor Intelligence, Vendor Rankings, Fulfillment Intelligence, Inventory Diagnostics, Shrinkage, Optimization opportunities. **(3)**
- Store operations analytics :** Using Analytics to Optimize Staffing Plans, Drilling into HR analytics, Customer Traffic, Store Performance Dashboards, Local Market Analytics, Online Offline Analytics, Sales Trends, Brand Performance, Account Performance Forecasts. **(3)**
- Customer View:** Customer Insights, Omni channel insights, Personalization, merchandise Data sources, including operations and supplier. **(3)**

Suggested Text Books:

- Retail Analytics – The Secret Weapon, Emmett Cox
- Behaviour Analytics in Retail, Ronny Max
- The Little Book on Big Data: Understand Retail Analytics Through Use Cases and Optimize Your Business, Mahogany Beckford
- The New Science of Retailing: How Analytics are Transforming the Supply Chain and Improving Performance, Fisher and Raman
- The Strategy and Tactics of Pricing: A Guide to Growing More Profitably, Nagle, Hogan and Zale, Prentice-Hall
- Competing on Analytics, Davenport, Harris
- The New Rules of Retail: Competing in the World's Toughest Marketplace, Lewis and Dart
- Sales Promotions, Neslin, Marketing Science Institute

Semester II		219BA: Workforce Analytics
2 Credits	LTP: 1:1:1	Subject Elective (SE) Course – Business Analytics

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO2019BA.1	REMEMBERING	ENUMERATE the use of Workforce Analytics.
CO2019BA.2	UNDERSTANDING	UNDERSTAND the process of creating and using HR analytics
CO2019BA.3	APPLYING	USE dashboards, pivot tables for data driven decision making in HR.
CO2019BA.4	ANALYSING	ILLUSTRATE the use of various tools and frameworks for predictive analytics.
CO2019BA.5	EVALUATING	DERIVE a variety of metrics and quantify key outcomes in multiple areas of HR.
CO2019BA.6	CREATING	BUILD value for HR departments by showing clear links between HR and Business outcomes.

1. **Workforce Analytics – Overview:** Workforce Analytics: definition, evolution, function of Workforce analytics, Use of Workforce / People / HR metrics to measure results in HR - Process vs Outcome , Efficiency vs Effectiveness, Lead vs Lag, challenges in measuring human capital, HR Business Framework, Concept of Balanced Score Card, Identifying key workforce questions, Strategic Case for Workforce Analytics, Data Sources, Power of combining data sources, Good, Important & Key Metrics. **(3)**
2. **Recruitment Metrics:** Fill-up ratio, Time to hire, Cost per hire, Early turnover, Termination during probation, Channel efficiency mix in terms of Direct hires, Employee referral hires, Agency hires & Lateral hires, Offer reject and renege, Fulfilment ratio, Quality of hire, Recruitment to HR cost. **(3)**
3. **Diversity Metrics:** Workforce diversity index, Gender mix, Differently abled index, Implementation challenges. **(3)**
4. **Talent Metrics:** Retention index, Voluntary and involuntary turnover, Turnover by department, grades, performance, and service tenure, Internal hired index. **(3)**
5. **Learning & Development Metrics:** Training need identification, Make or Buy Model, Training effectiveness evaluation, Percentage of employee trained, Internally and externally trained, Training hours and cost per employee, ROI calculation. **(3)**
6. **Internal Mobility Metrics:** Career Progression Indices - Promotion index, Rotation index, Career path index, Level wise succession readiness index. **(3)**
7. **People Deployment Metrics:** Employees per manager, Employee service profiling, Workforce age profiling, Workforce service profiling, Churn index, Separation clearance time. **(3)**
8. **HR Cost Metrics:** Revenue per employee, Operating cost per employee, PBT per employee, HR cost per employee, HR to operating cost, Compensation to HR cost, HR budget variance, HR ROI. **(3)**
9. **HR KPI Dashboard:** Calculating HR KPI, Scorecard based on recruitment, training and development, Calculating HR KPI, Scorecard based on employee retention, and turnover. **(3)**
10. **HR Predictive Analytics:** Regional and country level differences in turnover data, Predicting individual and team turnovers, Turnover costs for business implications, Selection decisions from previous performance data, Predictive modelling of individual and team performance, Identifying flight-risk candidates, Report generation. **(3)**

Suggested Text Books:

1. The Practical Guide to HR Analytics: Using Data to Inform, Transform, and Empower HR Decisions, Shonna D. Waters, Valerie N. Streets, Lindsay Mcfarlane, Rachael Johnson-Murray
2. HR Analytics: Understanding Theories and Applications , Dipak Kumar Bhattacharyya
3. Doing HR Analytics - A Practitioner's Handbook With R Examples Lyndon Sundmark

Semester II		220BA: Tableau
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Business Analytics

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO221BA.1	REMEMBERING	DEFINE Tableau terminology and SHOW how to Connect to your data, Edit and save a data source.
CO221BA.2	UNDERSTANDING	ILLUSTRATE the use of the Tableau interface to effectively create powerful visualizations and charts.
CO221BA.3	APPLYING	MAKE USE OF statistical techniques to analyze your data, parameters and input controls to give users control over certain values.
CO221BA.4	ANALYSING	INTEGRATE data sources using data blending and Combine data from multiple tables in the same data source using joins.
CO221BA.5	EVALUATING	CREATE basic calculations including basic arithmetic calculations, custom aggregations and ratios, date math, and quick table calculations.
CO221BA.6	CREATING	BUILD spatial visualizations of non-geographic data by using advanced geographic mapping techniques and custom images and geocoding.

1. **Data Connections:** Tableau terminology, Tableau interface/paradigm, Create and save data connections, Create a live connection to a data source, Explain the differences between using live connections versus extracts, Create an extract, Save metadata properties in a .TDS, Modify data connections, Add a join, Add a blend, Add a union, Manage data properties, Rename a data field, Assign an alias to a data value, Assign a geographic role to a data field, Change data type for a data field (number, date, string, boolean, etc.), Change default properties for a data field (number format, aggregation, color, date format, etc.) **(5+1)**

2. **Organizing & Simplifying Data:** Organize data and apply filters, Filter data, Sort data, Build groups, Build hierarchies, Build sets, Add a filter to the view, Add a context filter, Add a date filter, Apply analytics to a worksheet, Add a manual or a computed sort, Add a reference line or trend line, Use a table calculation. **(5+1)**
3. **Field & Chart Types :** discrete v. continuous, Measure Names and Measure Values, Generated Fields, Use bins and histograms, Heat maps, Tree maps, Bullet graphs, bar chart, line chart, stacked bar, Combined Axis Charts, Dual Axis Charts, Scatter Plots, Data Highlighter, Cross tabs, Motion charts, Bar in bar charts, Box plots, Gantt Bar Charts, Paretos, Sparklines, geocoding , spatial visualizations of non-geographic data, Using titles, captions and tooltips, Editing axes, Mark labels and annotations. **(5+1)**
4. **Calculations:** Manipulating string and date calculations, Create quick table calculations, Use LOD calculations; types of LOD calculations, Use Ad-hoc calculations, Work with aggregation options, Build logic statements, Build arithmetic calculations, Build grand totals and sub-totals, Use calculations in join clauses, Create a calculated field (e.g. string, date, simple arithmetic), Add a parameter. **(5+1)**
5. **Sharing Insights:** Format view for presentation, Use color, Use bolding, Use shapes, Change size of marks, Select fonts, Create and modify a dashboard, Create a dashboard layout, Add interactive or explanatory elements, Add dashboard actions, Modify existing dashboard layout for mobile devices, Create a story using dashboards or views, Share a twbx as a PDF, Share a twbx as an image. **(5+1)**

Suggested Text Books:

1. Mastering Tableau, David Baldwin
2. Communicating Data with Tableau: Designing, Developing, and Delivering Data Visualizations, Ben Jones
3. Learning Tableau, Joshua N. Milligan
4. Practical Tableau: 100 Tips, Tutorials, and Strategies from a Tableau Zen Master, Ryan Sleeper

Semester II		221BA: Data Warehousing Project Life Cycle Management
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Business Analytics

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO221BA.1	REMEMBERING	DESCRIBE various stages in Data Warehouse development process.
CO221BA.2	UNDERSTANDING	EXPLAIN the significance of and Project Management issues to be considered in the Data warehouse and Business Intelligence projects and the practicality of each phase.
CO221BA.3	APPLYING	MAKE USE OF the Data warehouse Lifecycle.
CO221BA.4	ANALYSING	FORMULATE Requirements Definition using requirements gathering methods.
CO221BA.5	EVALUATING	DETERMINE users of information and SELECT appropriate Information Delivery Tools, OLAP models and Data Mining Techniques.
CO221BA.6	CREATING	CREATE an Implementation Plan for a Data warehouse Project.

1. **Data Warehousing Project Life Cycle Management - Planning And Requirements:** Data to Information Lifecycle, Brief History of Accessing, Reporting And Analyzing Data, Business Intelligence (BI) defined, Data Warehousing (DW) defined, Data Mining defined, Data Stores and Data Marts defined, Uses of BI & DW, Business Drivers For BI, Business and IT Drivers For DW, Applications that use BI And DW, Data Shadow Systems, Industry terminology, Planning the Data Warehouse Project, The Project Team, Project Management Considerations, Defining the Business Requirements, Dimensional Analysis, Information Packages, Requirements Gathering Methods, Requirements Definition: Scope and Content, Requirements as the Driving Force for Data Warehousing, Data Design, The Architectural Plan, Data Storage Specifications, Information Delivery Strategy. **(5+1)**
2. **Data Warehousing Project Life Cycle Management - Architecture And Infrastructure:** The Architectural Components, Understanding Data Warehouse Architecture, Distinguishing Characteristics, Architectural Framework, Technical Architecture, Infrastructure as the Foundation for Data Warehousing, Infrastructure Supporting Architecture, Infrastructure Supporting Architecture, Database Software, Collection of Tools, The Significant Role of Metadata, Why Metadata is Important, Metadata Types by Functional Areas, Business Metadata, Technical Metadata, How to Provide Metadata. **(5+1)**
3. **Data Warehousing Project Life Cycle Management - Data Design And Data Preparation:** Principles of Dimensional Modeling, From Requirements to Data Design, The STAR Schema, STAR Schema Keys, Advantages of the STAR Schema, Updates to the Dimension Tables, Miscellaneous Dimensions, The Snowflake, Schema, Aggregate Fact Tables, Families of STARS, Data Extraction, Transformation, and Loading, Data Extraction, Data Transformation, Data Loading, ETL Summary, Why is Data Quality Critical?, Data Quality Challenges, Data Quality Tools, Data Quality Initiative. **(5+1)**
4. **Data Warehousing Project Life Cycle Management - Information Access And Delivery:** Matching Information to the Classes of Users. Information from the Data Warehouse, Users of the Information, Information Delivery, Information Delivery Tools, Demand for Online Analytical Processing, Major Features and Functions, OLAP

Models, OLAP Implementation Considerations, Data Warehousing and the Web, Web-Enabled Data Warehouse, Web-Based Information Delivery, OLAP and the Web, Building a Web-Enabled Data Warehouse, Data Mining, Major Data Mining Techniques, Data Mining Applications. **(5+1)**

5. **Data Warehousing Project Life Cycle Management - Testing , Implementation And Maintenance:** Unit, IT, ST, Data volume, ETL and other test techniques, The Physical Design Process, Physical Design Steps, Physical Design, Considerations, Physical Storage, Indexing the Data Warehouse, Performance Enhancement Techniques, Data Warehouse Deployment, Major Deployment Activities, Considerations for a Pilot, Security, Backup and Recovery, Growth and Maintenance, Monitoring the Data Warehouse, User Training and Support, Managing the Data Warehouse, Scoping, Estimation, proposal writing and Risk planning. **(5+1)**

Suggested Text Books:

1. The Data Warehouse Lifecycle Toolkit, Ralph Kimball
2. Data Warehouse Project Management , Sid Adelman, Larissa T. Moss
3. The Data Warehouse Lab: A step-by-step guide using SSIS and SSAS, Amin Jalali
4. Data Warehouse for Project Managers, Laura Reeves
5. The Profit Impact of Business Intelligence, Steve Williams , Nancy Williams

Semester III and IV Syllabus

Generic Core (GC) Courses - Semester III

Semester III		301– Strategic Management
3 Credits	LTP: 2:1:1	Compulsory Generic Core Course

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO301.1	REMEMBERING	DESCRIBE the basic terms and concepts in Strategic Management.
CO301.2	UNDERSTANDING	EXPLAIN the various facets of Strategic Management in a real world context.
CO301.3	UNDERSTANDING	DESCRIBE the trade-offs within and across strategy formulation, implementation, appraisal.
CO301.4	APPLYING	INTEGRATE the aspects of various functional areas of management to develop a strategic perspective.
CO301.5	ANALYSING	EXPLAIN the nature of the problems and challenges confronted by the top management team and the approaches required to function effectively as strategists.
CO301.6	CREATING	DEVELOP the capability to view the firm in its totality in the context of its environment.

- 1. Understanding Strategy:** Concept of strategy, Levels of Strategy - Corporate, Business and Functional. Strategic Management - Meaning and Characteristics. Distinction between strategy and tactics, Strategic Management Process, Stakeholders in business, Roles of stakeholder in strategic management. Strategic Intent – Meaning, Hierarchy, Attributes, Concept of Vision & Mission - Process of envisioning, Difference between vision & mission. Characteristics of good mission statements. Business definition using Abell’s three dimensions. Objectives and goals, Linking objectives to mission & vision. Critical success factors (CSF), Key Performance Indicators (KPI), Key Result Areas (KRA). Components of a strategic plan, Analyzing Company’s External Environment: Environmental appraisal, Scenario planning – Preparing an Environmental Threat and Opportunity Profile (ETOP). Analyzing Industry Environment: Industry Analysis - Porter’s Five Forces Model of competition, Entry & Exit Barriers. (7+2)
- 2. Analyzing Company’s Internal Environment:** Resource based view of a firm. Analyzing Company’s Resources and Competitive Position - meaning, types & sources of competitive advantage, competitive parity & competitive disadvantage. VRIO Framework, Core Competence, characteristics of core competencies, Distinctive competitiveness. Benchmarking as a method of comparative analysis. Value Chain Analysis Using Porter’s Model: primary & secondary activities. Organizational Capability Profile: Strategic Advantage Profile, Concepts of stretch, leverage & fit, ways of resource leveraging – concentrating, accumulating, complementing, conserving, recovering. Portfolio Analysis: Business Portfolio Analysis – BCG Matrix – GE 9 Cell Model. (7+2)
- 3. Generic Competitive Strategies:** Meaning of generic competitive strategies, Low cost, Differentiation, Focus – when to use which strategy. Grand Strategies: Stability, Growth (Diversification Strategies, Vertical Integration Strategies, Mergers, Acquisition & Takeover Strategies, Strategic Alliances & Collaborative Partnerships), Retrenchment – Turnaround, Divestment, Liquidation, Outsourcing Strategies. (7+2)
- 4. Strategy Implementation:** Barriers to implementation of strategy, Mintzberg’s 5 Ps – Deliberate & Emergent Strategies. Mc Kinsey’s 7s Framework. Organization Structures for Strategy Implementation: entrepreneurial, functional, divisional, SBU, Matrix, Network structures, Cellular/ Modular organization, matching structure to strategy, organizational design for stable Vs. turbulent environment, Business Continuity Planning. Changing Structures & Processes: Reengineering & strategy implementation – Principles of Reengineering. Strategy Evaluation: Operations Control and Strategic Control - Symptoms of malfunctioning of strategy –Concept of Balanced scorecard for strategy evaluation. (7+2)
- 5. Blue Ocean Strategy:** Difference between blue & red ocean strategies, principles of blue ocean strategy, Strategy Canvass & Value Curves, Four Action framework. Business Models: Meaning & components of business models, new business models for Internet Economy– E-Commerce Business Models and Strategies – Internet Strategies for Traditional Business –Virtual Value Chain. Sustainability & Strategic Management. Threats to sustainability, Integrating Social & environmental sustainability issues in strategic management, meaning of triple bottom line, people-planet-profits. (7+2)

Suggested Text Books:

1. Strategic Management and Business Policy by Azhar Kazmi, Tata McGraw-Hill
2. Strategic Management by Ireland, Hoskisson & Hitt, Indian Edition, Cengage Learning
3. Crafting and Executing Strategy- The Quest for Competitive Advantage by Thompson, Strickland, Gamble & Jain, Tata McGraw-Hill
4. Concepts in Strategic Management & Business Policy by Thomas L. Wheelen & J. David Hunger, Pearson

Suggested Reference Books:

1. Strategic Management by Dr. Yogeshwari L. Giri
2. Competitive Strategy: Techniques for Analyzing Industries and Competitors by Michael E. Porter, First Free Press Edition
3. Competing for the Future by Gary Hamel & C.K. Prahalad, .
4. Blue Ocean Strategy by Kim & Mauborgne

Semester III		302– Decision Science
3 Credits	LTP: 2:1:1	Compulsory Generic Core Course

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO302.1	REMEMBERING	DESCRIBE the concepts and models associated with Decision Science.
CO302.2	UNDERSTANDING	UNDERSTAND the different decision-making tools required to achieve optimisation in business processes.
CO302.3	UNDERSTANDING	APPLY appropriate decision-making approach and tools to be used in business environment.
CO302.4	APPLYING	ANALYSE real life situation with constraints and examine the problems using different decision-making tools
CO302.5	ANALYSING	EVALUATE the various facets of a business problem and develop problem solving ability
CO302.6	CREATING	DISCUSS & propose the various applications of decision tools in the present business scenario.

1. **Introduction:** Importance of Decision Sciences & role of quantitative techniques in decision making. **Assignment Models:** Concept, Flood's Technique/ Hungarian method, applications including restricted, multiple assignments and maximization objective. **Transportation Models:** Concept, formulation, problem types: balanced, unbalanced, restriction and maximization, Basic initial solution using North West Corner, Least Cost & VAM, Optimal solution using MODI, multiple solution case to be considered. (8+2)
2. **Linear Programming:** Concept, Formulation & Graphical Solution. Markov Chains: Applications related to management functional areas, estimation of transition probabilities. Simulation Techniques: Monte Carlo Simulation, scope, and limitations. (7+2)
3. **Probability:** Concept, Conditional Probability theorem-based decision making. Probability Distributions: Normal, Binomial, Poisson (Simple numerical for decision making expected). **Queuing Theory:** Concept, Single Server (M/M/1, Infinite, FIFO), Introduction of Multi Server (M/M/C, Infinite, FIFO) (Numerical on single server model expected) (8+2)
4. **CPM & PERT:** Concept, Drawing network, identifying critical path, Network calculations- calculating EST, LST, EFT, LFT, Slack, floats & probability of project completion in case of PERT. Network crashing: Concept of project cost and its components, time and cost relationship, crashing of CPM network. (8+2)
5. **Decision Theory:** Concept, Decision making under uncertainty Maximax, Maximin, Minimax regret, Hurwicz's & Laplace criterion, Decision making under risk (EMV, EVPI) for items with and without salvage value. Game Theory: Concept, 2 × 2 zero sum game, Pure & Mixed Strategy, solution of games with dominance, average dominance method. Sequencing problem: Introduction, Problems involving n jobs-2 machines, n jobs- 3 machines & n jobs-m machines, Comparison of priority sequencing rules.(6+2)

Important Note:

1. In each unit caselet related to management situation in various functional domains shall be discussed by the subject teacher.
2. Numerical based on functional areas of business are expected on each unit

Suggested Text Books:

1. Quantitative Techniques in Management by N.D. Vohra Tata, McGraw Hill Publications (latest Edition)
2. Operations Research by Hamdy A. Taha, Pearson Publication (latest edition)
3. Operations research by Hira Gupta, S. Chand Publication (latest Edition)

4. Operations Research Theory & Applications by J K Sharma- MacMillan Publishers India Ltd. (latest Edition)
5. Statistical Methods by S.C. Gupta S. Chand Publication (latest edition)
6. Comprehensive Statistical Methods by P.N. Arora, Sumeet Arora, S. Arora S. Chand Publication

Suggested Reference Books:

1. Quantitative techniques & statistics By K L Sehgal Himalaya Publications (latest edition)
2. An introduction to management science: Quantitative approach for decision making- Cengage Learning- Anderson (latest edition)
3. Introduction to Operations Research by Billey E. Gillett, TMGH (latest edition)
4. Operations Research by Nita Shah, Ravi Gor, Hardik Soni, PHI (latest Edition).
5. Operations Research by R. Pannerselvam, Prentice Hall India

Generic Core (GC) Courses - Semester IV

Semester IV		401 – Enterprise Performance Management
3 Credits	LTP: 2:1:1	Compulsory Generic Core Course

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO401.1	REMEMBERING	Enumerate the different parameters & facets of management control of an enterprise.
CO401.2	UNDERSTANDING	Illustrate the various techniques of enterprise performance management for varied sectors.
CO401.3	UNDERSTANDING	Determine the applicability of various tools and metrics as a performance evaluation & management tools.
CO401.4	APPLYING	Analyse the key financial & non-financial attributes to evaluate enterprise performance.
CO401.5	ANALYSING	Formulate the various parameters to evaluate enterprise performance effectively through implementation of strategy.

- Performance Management:** Concept, Need, Linkages with Strategic Planning, Management Control and Operational Control. **Performance Evaluation Parameters:** Financial – Responsibility Accounting –Concept of Responsibility Centers, Revenue Centre, Expense Centre - Engineered and Discretionary costs – Committed costs, Profit Centre, Investment Centers. ROI, ROA, MVA, EVA – DuPont analysis. **(Numericals expected)** Limitations of Financial Measures. **(8+1)**
- Performance Evaluation Parameters:** Non-Financial Performance measures – Balanced Scorecard, Malcolm Baldrige Framework. **Measuring SBU Level Performance:** Concept, Need, and Linkages with Enterprise Performance Management – Goal Congruence. Transfer Pricing – Objective, Concept, and Methods – Cost based, Market price based & Negotiated, Applicability of Transfer Pricing. (Numerical / Case is expected) (7+1)
- Capital Expenditure Control:** Concept, Need, Process of Capital Budgeting, Types of capital expenditure decisions – pre-sanction, operational and post-sanction control of capital expenditure. Tools & Techniques of Capital Expenditure Control: Performance Index, Technical Performance Measurement, Post completion audit. **Performance Evaluation Parameters for Projects:** Project Control Process: Setting base line plan, Measuring progress and performance, comparing plan against action, Taking action, Schedule variance (time overruns), Project Cost Variance (cost overruns). (8+2)
- Performance Evaluation Parameters for Banks:** Customer Base, NPAs, Deposits, ROI, Financial Inclusion, Spread, Credit Appraisal, Investments. **Performance Evaluation Parameters for Retail:** ABC analysis, Sell Through Analysis, Multiple Attribute Method, Gross Margin Return on Investment (GMROI), GMROI as Gross Margin/Average Inventory at Cost, **Performance Evaluation Parameters for Non-Profit:** Features of Non-profit organizations, fund accounting, governance, product pricing, strategic planning & budget preparations, social audit. (8+2)
- Performance Evaluation Parameters for E-Commerce:** Features of E commerce, Need of evaluation, Metrics for performance evaluation: Business metrics, Traffic metrics, Conversion matrix & Audience involvement metrics. Various KPI used by E Commerce industry : Website traffic , referral traffic, conversion rate optimization, bounce rate of website, repeat visit, cart abandon rate, cost per conversion, average order value, revenue on advertising spend, customer life time value, net promoter score, churn rate. **Audit Function as a Performance Measurement Tool:** Financial Audit, Internal Audit, Cost Audit, Management Audit – Principles and Objectives (Audit Reports / Formats are expected to be discussed in the class from a performance measurement perspective). (9+1)

Suggested Text Books:

- Management Control System by Robert Anthony & Vijay Govindrajana, Tata McGraw Hill Publishing Co. Ltd.
- Management Control in Non Profit Organizations by Robert Anthony & David Young, McGraw Hill International Publication
- Retailing Management by Swapna Pradhan, TMGH

Suggested Reference Books:

- Project Management by K.Nagarajan, New Age International Publications
- Principles and Practices of Auditing by Ravindar Kumar & Virendar Sharma, PHI.
- Principles and Practices of Banking by Indian Institute of Banking & Finance, MacMillan India Ltd.
- Financial Management by Prasanna Chandra, TMGH
- E business: A Canadian perspective for a Networked World , Gerald Trites, J. Efrim Boritz Pearson

Semester IV		402 – Indian Ethos & Business Ethics
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3 Credits	LTP: 2:1:1	Compulsory Generic Core Course
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Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO402.1	REMEMBERING	Recall and spell the human universal values of Indian Ethos and its applications in Business ethics
CO402.2	UNDERSTANDING	Recognize and Demonstrate the relevance of Indian Ethos by taking the rationale and ethical business decision derived from Indian Heritage Scriptures.
CO402.3	APPLYING	Apply the concepts of Indian Ethos, Values, and Ethics with moral reasoning to develop sustainable solutions to solve complex business issues..
CO402.4	ANALYSING	Analyze and make inferences to contemporary business practices in relation to Indian Ethos & Business Ethics
CO402.5	EVALUATING	Appraising the importance of business decisions on the basis of ethics and thus create a value driven management.
CO402.6	CREATING	ELABORATE Ethical dilemmas in different business areas of marketing, HRM and Finance and ADAPT dilemma resolution interventions by referring to Ethical decision making.

1. **Indian Ethos and Values : Its relevance at Workplace: Indian Ethos-** Meaning, Features, Need, Evolution, Relevance, Universal Human values for continuity of happiness and prosperity, Development of Human Consciousness Principles Practiced by Indian Companies, Requisites, Elements, Role of Indian Ethos in Managerial Practices, Triguna Theory-OSHA Model. Work Ethos meaning, dimensions of Work Ethos. **Values** - Concepts, Values in business, Value system in work culture, and Values of Indian Managers, Relevance of Value Based Management in Global Change; Impact of values on Stakeholders; Trans-Cultural Human Values, need of ethos in business organisations with reference to Indian firms, Ethics v/s Ethos, Eastern Management v/s Western Management. (8+2)

2. **Indian Model of Management:** Concept of Indian Model of Management in the Indian socio-political environment, Laws of Karma and its relevance in business settings, Indian Heritage in Business-Management. Production and Consumption: Management lessons from Indian heritage scriptures (like Mahabharata & Ramayana), Leadership Pointers from Kautilya's Arthashastra, VEDA Model of Leadership, Corporate Rishi Model, Theory K, WE theory (West-East Theory) (11+2)

3. **Business Ethics as Applied ethics:** Meaning, Characteristics of Business Ethics, Importance of Business Ethics (Long Term growth, Cost reduction, Risk mitigation, Limited resources, etc.), The Ethics of the Business, Types of Business Ethics (Transactional Ethics, Participatory Ethics, Recognition Ethics), Factors influencing business ethics, Svensson and Wood, A Model of Business Ethics. Categories of Ethics and Responsibilities (Personal, Professional, Managerial) Business Code of Conduct), Approaches to Business Ethics: Consequentialist & Non-Consequentialist The Ethical Audit, Theories of Ethics - Deontological Theory & Teleological Theory, Kohlberg's Six stage moral development, Chris Moon's Ethical fitness: a Four-Step Workout (Moral Awareness, Values Definition, Ethical Analysis, Dilemma Resolution). (11+2)

4. **Ethical decision making in business matrix:** Framework of Ethical decision making, Ethical dilemmas in different functional areas of Business (Finance, Marketing HRM and International Business), Difficulties for practice ethics in organization, Intellectual Property Rights and Business Ethics, Ethical challenges for Managers, Ethical Decision Making process, it's Model -STEP Model, PLUS Filter Model. (8+2)

5. **Applications of Ethical Principles to Contemporary, Moral and Ethical problems / issues related to Business:** Contemporary cases on Corporate Strategy, Moral Reasoning, personal responsibility and UN-17 SDG: Climate Change, Corporate Strategy and Natural resource depletion, Corporate Social Responsibility, transparency and accountability, Social Media and E-Platforms. Current ethical issues like Bank scams, Airlines etc. (7+2)

Suggested Text Books:

1. Business Ethics (Concept, Application, Framework and Cultural Impact) k. Aswathappa, J. Ushar Rani, Sunanda Gundavajhala, Himalaya Publishing House
2. Ethics in Management and Indian Ethos, Biswanath Ghosh, Vikas Publishing House
3. Indian Ethos of Management, Tushar Agarawal and Nidhi Chandorkar, Himalaya Publication House.
4. Indian Ethos and Values for Managers, Khandelwal, Himalaya Publishing House

Suggested Reference Books:

1. Indian Ethos & Values In Management, Nandagopal R, Ajith Sankar, Tata McGraw Hill Publishing Co. Ltd.
2. New Mantras in Corporate corridors From Ancient Routes to Global Roots, Subhas Sharma, New Age International Publishers
3. Business Ethics: Concepts and Cases, Velasquez, Pearson Education India.

4. Corporate Chanakya , Radhakrishnan Pillai , Jaico Publishing House
5. Business Ethics at work, Elizabeth Vallance, Cambridge University Press

Research papers/Articles:

1. A Model of Business Ethics, GoranSvensson Greg Wood, Journal of Business Ethics (2008) 77:303–322, Springer 2007, DOI 10.1007/s10551-007-9351-2
2. Fair Employment Agency: Eliminating Forced labor Through Ethical Business Practices, David Bishop, Joao Costa, KHU Business School, Asia Case Research Center, Harvard Business Publishing (HBPS#1296)
3. Case Study at Harvard Business Review 2007: Avoiding Integrity Land Mines, Ben W. Heineman, Jr.

Useful Links:

1. <https://sdgs.un.org/goals>
2. <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

Generic Courses (Electives) – University Level – Semester III & IV

Semester III		306 – International Business Economics
2 Credits	LTP: 2:0:0	Generic Elective – University Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 306 .1	Remembering	RECALL and DEFINE the economic aspects of international business.
CO 306 .2	Understanding	DEMONSTRATE the outcomes of globalising and liberalising trade environment, trade policy frameworks and macroeconomic linkages of the open economy.
CO 306 .3	Applying	IDENTIFY the mechanisms and working of the foreign exchange markets.
CO 306 .4	Analysing	EXAMINE how a trade policy improves or diminishes the prospects of survival / growth of business.
CO 306 .5	Evaluating	MEASURE the implications of International Financial Crisis and its repercussions on International Trade
CO306.6	CREATING	COMPOSE a matrix of various economic aspects of international business and their linkages with Indian Economy

- International Trade:** Trade Theories, Ricardo and Comparative advantage, Heckscher Ohlin model of factor abundance , Krugman’s model of Intra-Industry Trade (5+1)
- Trade policies:** Unilateral and multilateral trade policies, Tariffs in competitive markets, WTO tariff policy, Quota, Tariff and quota in monopolistic markets, Dumping and Antidumping Duty under the WTO, Subsidies and Countervailing duties under the WTO, Export taxes, Export subsidies, Economic Integration (5+1)
- Currency and International Finance:** Currency market and exchange rate, Spot and forward markets, Types of Foreign Exchange Transactions – Reading Foreign Exchange Quotations – Forward and Futures Market – Foreign-Currency Options – Arbitrage – Speculation and Exchange-Market Stability, Currency market and basic Central Bank operation, Product market approach to determination of exchange rate, Asset market approach to determination of exchange rate. (5+1)
- Exchange rate policies and macroeconomic management:** Fixed and flexible rates – Central Banks actions, Impact of changing exchange rates on exports and imports, Volatility managements by the government and Exchange rate regimes, Open economy macroeconomics, 3 International Financial Crises models - Understanding the recent few crises, The Euro Crisis, Economic risk indicators for FDI and FII (5+1)
- International Banking:** Reserves, Debt and Risk : Nature of International Reserves – Demand for International Reserves – Supply of International Reserves – Gold Exchange Standard – Special Drawing Rights – International Lending Risk – The Problem of International Debt – Financial Crisis and the International Monetary Fund – Eurocurrency Market. (5+1)

Suggested Text Books:

- International Economics Theory and Policy by Paul Krugman, Maurice Obstfeld, Pearson Education
- International Economics by Robert Carbaugh, Thomson – South Western
- International Business by John Daniels, Lee Radebaugh, Daniel Sullivan and Prashant Salwan, Pearson

Suggested Reference Books:

- International Economics by Thomas Pugel, McGraw-Hill-Irwin
- The World is Flat by Friedman Thomas
- International Economics by Edward Leamer, editor,
- Jagdish N. Bhagwati, Arvind Panagariya, and T. N. Srinivasan, Lectures on International Trade
- Rethinking International Trade by Paul R. Krugman

Semester III		307– International Business Environment
2 Credits	LTP: 2:0:0	Generic Elective – University Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 307 .1	REMEMBERING	Recall and Describe the key concepts of international Business Environment

CO 307 .2	UNDERSTANDING	Understand the relevance of Multinational Corporations (MNCs) in global trade
CO 307 .3	APPLYING	Demonstrate the significance of FDI and FPI in respect of developing economy
CO 307 .4	ANALYSING	Analyze the issues related to Labor, Environmental and Global Value chain
CO 307 .5	EVALUATING	Formulate and discuss the case related to various Agreements under WTO and contemporary global business environment.

- 1. Introduction to International Business:** Importance, nature and scope of International business; modes of entry into International Business, internationalization process. Globalization: Meaning, Implications, Globalization as a driver of International Business. The Multinational Corporations (MNCs) – evolution, features and dynamics of the Global Enterprises. Consequences of Economic Globalization, Brexit, Reverse globalization. (5+1)
- 2. International Business Environment:** Political Economy of International Business, Economic and Political Systems, Legal Environment, Cultural Environment, Ethics and CSR in International Business. (5+1)
- 3. International Financial Environment:** Foreign Investments - Pattern, Structure and effects. Theories of Foreign Direct Investment, Traditional and Modern theories of FDI, Modes of FDI - Greenfield, Brownfield Investments, Mergers and Acquisitions, Motives of FDI, FDI contrasted with FPI. Basics of Forex Market. (5+1)
- 4. International Economic Institutions and Agreements:** WTO, IMF, World Bank, UNCTAD Tariff and Non-tariff Barriers. Balance of Payment Account: Concept and significance of balance of payments, Current and capital account components. Introduction to Basic Concept of IFRS. (5+1)
- 5. Emerging Issues in International Business Environment:** Growing concern for ecology, Digitalisation; Outsourcing and Global Value chains. Labor and other Environmental Issues, Impact of Pandemic COVID-19 on international trade. (5+1)

Suggested Text Books:

1. Global Business Management by Adhikary, Manab, Macmillan Publishers, New Delhi.
2. International Business Environment by Black and Sundaram, Prentice Hall of India, New Delhi
3. Economic Environment Of Business by Gosh, Biswanath, South Asia Book, New Delhi.
4. International Business by Aswathappa Tata Mc Graw Hill publications, New Delhi.
5. International Business by P. Subha Rao

Suggested Reference Books:

1. Going International Response Strategies For Indian Sector by Bhattacharya.B, Wheeler Publishing Co, New Delhi.
2. International Economies by D.N. Krithani.
3. International Business by Roger Bennett
4. Business Environment by C.B. Gupta
5. International Business by Francis Cherunillam

Semester III		308 – Project Management
2 Credits	LTP: 2:0:0	Generic Elective – University Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 308 .1	Remembering	DEFINE the key terms and concepts in project management.
CO 308 .2	Understanding	EXPLAIN the Importance of project management methodologies and tools at the distinct stages in the Project's life cycle
CO 308 .3	Applying	ILLUSTRATE the importance of PM in most industries and businesses
CO 308 .4	Analysing	EXAMINE the importance of Leadership specifically in heterogenous and virtual teams as well as governance and approaches to conflict resolutions
CO 308 .5	Evaluating	DESIGN dashboard, status report and index for Key Performance Indicators of project for the Management

- 1. Overview of Project Management:** Concept of Project, Attributes of a Project, Importance of Project Management, Project Management Process, Project Lifecycle, Project Stakeholders, Project Management Structures, Choosing Appropriate Project Management Structure, Implications of Organizational Culture, Main Causes of Project Failure. Project Definition: Defining Scope, Establishing Priorities, Creating the Work Breakdown Structure (WBS),

integrating the WBS with the organization, Coding the WBS for information system, Project Roll Up, Process Breakdown Structure, Responsibility Matrices. (5+1)

2. **Project Planning:** Estimating Project Times and Costs: Factors Influencing Quality of Estimates, Estimation Guidelines for Time, Costs and resources, Macro versus Micro Estimating, Methods for Estimating Project Times and Costs, Level of detail, Developing Budgets, Types of Costs, Refining estimates and contingency funds. Developing a Project Plan: Developing the Project Network, From Work Package to Network, Constructing a Project Network, Activity-on-Arrow Fundamentals, Network Computation process, Using the Forward and Backward pass information, Level of Detail for activities, Extended Network techniques. (5+1)

3. **Project Scheduling & Risk Management:** Scheduling Resources and Reducing Project Duration: Types of Project Constraints, Classification of Scheduling Problem, Resource Allocation Methods, Splitting, Multitasking, Benefits of scheduling resources, Assigning Project work, Multi Project resource Schedules, Rationale for reducing project duration, Options for accelerating Project Completion, Concept and construction of a Project Cost – Duration Graph, Practical considerations . Managing Risk: Risk Management process – Risk Identification, Risk Assessment, Risk Response Development, Contingency Planning, Risk Response Control, Change Control Management. (5+1)

4. **Project Organization:** The Project Manager: Role and Responsibilities of the project Manager, Planning, Organizing, Controlling, Skills of the Project Manager – Leadership Abilities, Coaching & mentoring Abilities, Communication Skills, Interpersonal Skills, Ability to Handle Stress, Problem Solving Skills, Time Management Skills, Delegation, Management of Change. Managing Project Teams: The five stage team development model, Situational factors affecting team development, Team effectiveness, Conflict in projects, Sources of Conflict, Handling Conflict. Managing Virtual Project teams, Project team pitfalls. (5+1)

5. **Project Evaluation:** Progress and Performance Management and Evaluation: Structure of a Project Monitoring Information System, Project Control Process, Monitoring Time Performance, Need for an Integrated Information System, Developing a dashboard, status report and index to monitor progress, Forecasting final project cost, Other control issues. Project Audit and Closure: Project Audit, Project Audit Process, Project Closure, Team, Team member and Project Manager Evaluations. (5+1)

Suggested Text Books:

1. Clifford Gray, Erik Larson and Gautam Desai, Project Management, The Managerial Process, Tata McGraw Hill
2. Effective Project Management, Clements and Gido, Thomson – India Edition.
3. Samuel Mantel, Jack Meredith, Scott Shafer, Margret Sutton and M.R.Gopalan, Project Management, Wiley India
4. Prasanna Chandra, Projects, Planning, Analysis, Selection, Financing, Implementation and Review, Tata McGraw Hill

Suggested Reference Books:

1. Project management Institute, The Guide to the Project Management Body of Knowledge (PMBOK Guide), PMI Publication

Semester III		309 – Knowledge Management
2 Credits	LTP: 2:0:0	Generic Elective – University Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 309 .1	Remembering	DEFINE the key terms and concepts in Knowledge Management.
CO 309 .2	Understanding	DESCRIBE the Knowledge Management cycle
CO 309 .3	Applying	DISCUSS the types of Knowledge and its implications.
CO 309 .4	Analysing	OUTLINE the importance of capturing knowledge elements and its structures application as a competitive advantage to business
CO 309 .5	Evaluating	EXPLAIN the human and business aspects of knowledge management.

1. **Introduction to Knowledge:** Meaning of data, information, knowledge and expertise, Meaning of epistemology, Types of Knowledge - Subjective & Objective views of knowledge, procedural Vs. declarative, tacit Vs. explicit, general Vs. specific, Types of expertise – associational, motor skill, theoretical, Characteristics of knowledge – explicitness, codifiability, teachability, Specificity, Reservoirs of knowledge. (5+1)

2. **KM and KM Cycle:** Why KM, KM system life cycle, and aligning KM and business strategy, KM Cycle: Knowledge creation, capturing tacit knowledge, Types of knowledge and its implications for KM Knowledge codification and system development: codification, system testing and deployment, Knowledge transfer and knowledge sharing- the role of culture and structure (5+1)

3. **KM system :** Analysis design and development: Knowledge infrastructure, Knowledge audit, and knowledge team, Analysis, design and development of KM system, KM tools and Portals: inferences from data, data mining and knowledge portals (5+1)

4. **KM Infrastructure:** Organizational Structure, Organizational Culture, Communities of Practice, Information Technology Infrastructure, Common Knowledge (5+1)
5. **Evaluation of KM effectiveness:** KM Impact: Dimensions of KM Impact – People, Processes, Products & Organizational Performance, Factors influencing impact – universalistic & contingency views, Assessment of KM Impact – Qualitative & quantitative measures, Identification of appropriate KM solutions, Ethical, legal and managerial issues, KM experiences from Indian companies, KM innovation and Learning organization, The future of KM. (5+1)

Suggested Text Books:

1. Fernandez I. B. and Sabherwal, R. (2010). Knowledge Management: System and Resources. PHI Delhi.
2. Tiwana Amrit (1999). The Knowledge Management Toolkit. Prentice Hall PTR.
3. Irma Becerra-Fernandez, Avelino Gonzalez, Rajiv Sabherwal (2004). Knowledge Management Challenges, Solutions, and Technologies, Prentice Hall. ISBN: 0-13-109931-0.
4. Elias M. Awad, Hassan M. Ghaziri (2004). Knowledge Management. Prentice Hall. ISBN: 0-13-034820-1.

Suggested Reference Books:

1. Donald Hislop, Knowledge Management in Organizations, Oxford 2nd Edition.
2. Ian Watson (2002). Applying Knowledge Management: Techniques for Building Corporate Memories. Morgan Kaufmann. ISBN: 1558607609.
3. Madanmohan Rao (2004). Knowledge Management Tools and Techniques: Practitioners and Experts Evaluate KM Solutions. Butterworth-Heinemann. ISBN: 0750678186.
4. Stuart Barnes (Ed.) (2002). Knowledge Management Systems Theory and Practice. Thomson Learning.
5. Kimiz Dalkir, Knowledge Management in Theory and Practice, Elsevier, Butterworth-Hinemann.
6. Shelda Debowski, Knowledge Management, Wiley India Edition.

Semester III		310– Corporate Governance
2 Credits	LTP: 2:0:0	Generic Elective – University Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO310.1	REMEMBERING	ENUMERATE the global contemporary developments in Corporate Governance.
CO310.2	UNDERSTANDING	EXPLAIN the importance of regulation, markets and information in corporate governance and CATEGORIZE the role of Board of Directors and Committees for good Corporate Governance.
CO310.3	APPLYING	EXAMINE the provision of Corporate Governance for listed and unlisted firms.
CO310.4	ANALYSING	ANALYSE the enterprise risk for formulating the Internal control policies.
CO310.5	EVALUATING	Evaluate the legal framework and global perspective of Corporate Governance.
CO310.6	CREATING	DISCUSS Cases related to Corporate Governance.

1. **Conceptual Framework of Corporate Governance:** Introduction, Need and Scope Evolution of Corporate Governance, Developments in India. Corporate Governance Code and Agency Theory. Corporate Governance Code & Principles (OECD). Theory in Corporate Governance: Agency Theory, Stakeholder theory, Stewardship theory. Models of Corporate Governance Anglo American Model. Japanese Model, German Model and Indian Model. Elements of Good Corporate Governance, Recent Corporate Governance Committee reports like N.R. Narayan Murthy Committee, J.J. Irani Committee, etc (5+1)
2. **Legal Framework for Corporate Governance:** Key Provisions of Companies Act 2013 on Corporate Governance for Listed and Unlisted Companies, SEBI LODR Regulations, Clause 49 - Listing agreement, Board Composition, Board Meetings, Role of Independent Director, Separation of roles of Chair- Person and MD / CEO, Audit Committee, Audit Reports and Audit Qualifications. (5+1)
3. **Corporate Governance and Other Stakeholders:** Prevention of Oppression and Mismanagement, Corporate Governance issues with regard to Related Party Transactions, Role of Investor Associations in Securing Shareholders Rights, Role of Institutional Investors in Corporate Governance. Corporate Governance and Other Stakeholders: Employees, Customers, Lenders, Vendors, Government, Society. (5+1)
4. **Risk Management and problems of poor governance:** Risk Management and Oversight, Enterprise Risk Management, Roles and Functions of Internal Control, Disclosure about Risk, Risk Management and Internal Control. Risk Management and Oversight, Enterprise Risk Management, Roles and Functions of Internal Control, Disclosure about Risk, Risk Management and Internal Control. Poor Corporate Governance and Corporate Frauds: Meaning and

Consequences of poor corporate Governance, ways to improve corporate governance, corporate frauds and importance of whistle blowing (5+1)

5. **Emerging trends & Global Perspective of Corporate Governance:** Meaning, need & features of ESG, Importance of ESG, ESG Reporting, ESG Rating, Green Finance, Green lending and green bonds, Blue Finance, Corporate Governance in PSUs, Banks. An overview of International Perspective of Corporate Governance and Contemporary Developments in the Global Arena with focus on countries like UK, USA, South Africa & Australia (5+1)

Note: Relevant cases pertaining to the topic & course content need to be covered.

Suggested Text Books:

1. S. M. Dewan, Corporate governance in public sector enterprises, Pearson Longman, 2006.
2. Corporate Governance in India – An Evaluation by S C Das, PHI – Eastern Economy Edition.
3. Corporate Governance by Christine A Mallin, Oxford University Press
4. Corporate Governance – Global Concepts & Practices, Dr. S Singh, Excel Books.

Suggested Reference Books:

1. Corporate Governance, Principles, policies and Practices – A.C. Fernando, Pearson Education.
2. Corporate Governance – IICA, Taxmann.
3. The Art of Corporate Governance – Dr. Joffy George.
4. The Essential Book of Corporate Governance by G. N. Bajpai.
5. Companies Act 2013 and Rules.
6. SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015
7. Case Studies on Ethics and Corporate Governance Vol I and II, ICAI Books.

Semester III		311–Management of Non-profit organizations
2 Credits	LTP: 2:0:0	Generic Elective – University Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO311.1	REMEMBERING	DESCRIBE the basic concepts and frameworks in the field of Non-Profit Sector & Non-Profit Organization.
CO311.2	UNDERSTANDING	EXPLAIN the characteristics of Non-Profit organizations, summarizing the factors affecting development of Non-Profit organization.
CO311.3	APPLYING	MAKE use of theoretical concepts, frameworks while registration process of Non-Profit Organization.
CO311.4	ANALYSING	EXAMINE the role of any public policies which helps NPO in decision making.
CO311.5	EVALUATING	EVALUATE the performance of Non-Profit organizations, the critical financial considerations of the Non-Profit organization.

1. **Fundamentals of Non-profit organization:** Introduction of Non-Profit Sector & Non-Profit Organizations, Define the Non-Profit Organization and describe its dimensions. Key concepts in Non-Profit management including board of governance, staffing, regulation, and volunteer management. Concept of Non-Profit leadership and governance and the functions of boards in organizational governance, the Board's Role and Responsibilities. Roles of board members in Non-Profit organizations, responsibilities of Non-Profit Organizations. Elements of board behaviour for effectiveness of organization. Developing Leadership and Improving Governance in Non-Profit Organizations, Improving the Effectiveness of Boards of Directors and the tools used to facilitate assessments of board performance. (5+1)

2. **Basics of Non-Profit Organization:** Difference between For-Profit and Non-Profit organizations, Characteristics of Non-profit Organizations. Factors affecting development of Non-Profit organizations, Challenges of managing a Non-Profit organizations, Factors responsible for success of Non-Profit organizations, Skills and abilities of the leaders of Non-profit organizations, vision, mission, values and goals of Non-Profit organizations. (5+1)

3. **Registration and Formation of Non-Profit Organization:** Nature, objectives, legal procedures, formalities and documentations required for registration. Different types of Non-Profit Organizations: NGOs, Trust and Society, its significance, differences and relationships. Overview of Societies Registration Act, Indian Trust Act, Indian Companies Act, Charitable Endowment Act, Memorandum of Association, Rules and Bye-laws of Non-Profit Organizations, Tax Benefits and Exemptions under different acts. (5+1)

4. **Managing Non-Profit Organizations:** Role of executives in building effective and sustainable organizations, Standards and code of conduct appropriate to professionals in the sector, Accountability and “managing the mission”, Volunteerism, conflicts of interest in various situations. Roles of Non-Profit organizations in the public policy framing process, Examples of Key public policies, Ethical issues, in management of NPOs, developing a sustainable business model based on the social need. (5+1)

5. **Performance of Non-Profit Organization:** Evaluating the performance of Non-profit Organizations, Ethical Decision making in Non Profit Organizations, Volunteers and their role in Non Profit organizations. Incentives and control in the non-profit context. Non-profit governance, Non-profit organizations and market competition, sales promotion and Public Relations for Non- profit Organization. Managing Financial Resource, Donor Marketing. (5+1)

Suggested Text Books:

1. Non-Profit Management: Principles and Practice...(Paperback) by Michael J. Worth
2. How to Start, Run & Grow a Successful Non- Profit organization by Aaron Sanders
3. Non-Profit organizations: Theory, management, policy by Helmut k. Anheier
4. Developing Non-Profit and Human Service Leaders: Essential Knowledge and Skills, Watson, Larry D., Hoefler, Richard, 2014
5. Kumar, R., Goel, S. L. (2005). Administration and Management of NGOs: Text and Case Studies. Deep and Deep Publications

Suggested Reference Books:

1. Banerjee, G. D. (2012). NGOs: Issues in Governance- Accountability Policies 7 Principles. Neha Publishers & Distributors
2. David Lewis (2014). Non-Governmental Organizations, Management and Development. Routledge Publication.
3. NGOs AND SOCIAL WELFARE: New Research Approaches David Lewis and N. Avichandran (Eds.)
4. Marketing of Non-Profit Organizations by Philip Kotler
5. Elements of Mercantile Law, N.D.Kapoor

Semester IV		405 – Global Strategic Management
2 Credits	LTP: 2:0:0	Generic Elective – University Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO405.1	Remembering	Define the concept and key terms associated with the global strategic management.
CO405.2	Understanding	Describe in detail global strategic alliance, merger and acquisitions.
CO405.3	Applying	Demonstrate various global organisation models in global strategic management context.
CO405.4	Analyzing	Examine various entry and business-level strategies from global strategic management prospective.
CO405.5	Evaluating	Explain globalization, innovation, and sustainability and challenges to strategic management.
CO405.6	Creating	Design global strategies and understand their relative merits and demerits.

1. **Introduction:** The phenomenon of Globalisation Localisation and Glocalization, Factors that push globalisation, factors that work against globalisation, The localisation pushes, The Global Integration/Local Responsiveness Grid. Globalization and strategic management; Competitive strategy and competitive advantage in global market. Assessing Countries’ Attractiveness: Country attractive Market and industry opportunities, Assessing industry opportunities, Country risk analysis. (5+1)

2. **Market Intelligence and Designing a Global Strategy :** Market Intelligence: Drivers and Benefits, Key Success Factors of World Class Market Intelligence, Intelligence Scope, Intelligence Process, Intelligence Tools – Collecting, Storing, and Communicating Intelligence. Designing a Global Strategy: Entry strategies, Direct Exporting, Licensing, Partnering, Joint Ventures, Buying an organization, Piggybacking, Turnkey Projects, Greenfield Investments. Increased Market Size, Return on Investment, Economies of Scale and Learning, Location Advantages. (5+1)

3. **Global Strategic Alliances:** Strategic Alliances: Global versus local alliances, typology and framework, Value potential, Partner analysis, Negotiation and design, Implementation of alliance management, Global multilateral alliances, Alliance constellation management, Criteria for successful alliances. Global Mergers and Acquisitions: The rationale for cross-border M&As, Cross-border acquisitions performance, Deciding on the M&A, Integrating the companies: the integration phase, Integrating the companies: the transition phase, Integrating the companies: the consolidation phase (Case studies of global strategic alliances and global mergers and acquisitions are expected). (5+1)

4. **Designing a Global Organisation:** Structure, processes and culture, global functional model, geographical model, single matrix model, multi-business global product division model, multi-business geographical model, multi-business matrix model, Hybrid structural models, transnational model. (5+1)

5. **Globalization, Innovation, and Sustainability:** Challenges to Strategic Management: Impact of Globalization, Innovation, Sustainability, Theories of Organizational Adaptation, Issues in global strategy implementation; strategy evaluation and control. (5+1)

Suggested Text Books:

1. Lasserre, Philippe, Global Strategic Management (4th Edition), Palgrave Macmillan, Bristol, Great Britain, 2003.
2. Michael Hitt, Duane Ireland and Robert Hoskisson, Concepts Strategic Management Competitiveness & Globalization (9th Edition), South-Western Cengage Learning Mason, USA, 2011.
3. Hans Hedin, Irmeli Hirvensalo, Markko Vaarnas, The Handbook of Market Intelligence Understand, Compete and Grow in Global Markets, John Wiley & Sons Ltd, West Sussex, United Kingdom, 2011.
4. Lorange, P. and J. Roos, Strategic Alliances: Formulation, Implementation, and Evolution, Blackwell, Oxford.
5. Gerardo R. Ungson and Yim-Yu Wong, Global Strategic
6. Management, Segment Books New Delhi, 2009.
7. Global Strategic Management, Kamel Mellahi, J. George Frynas, and Paul Finlay, Oxford University Press, New York, 2005.
8. Globalization and Business, John Daniels, Leeh. Radebaugh, and Daniel P. Sullivan, Prentice Hall of India Private Limited, New Delhi, 2002.

Suggested Reference Books:

1. Thomas Wheelen and David Hunger, Strategic Management and Business Policy - Toward Global Sustainability (13th Edition), Pearson Education, New Jersey, USA, 2012
2. Thomas Wheelen, David Hunger, Alan Hoffman and Charles Bamford, Strategic Management and Business Policy Globalization, Innovation, and Sustainability (14th Edition) Pearson Education Limited, Essex, England, 2015
3. Davidson, W.H., Global Strategic Management, John Wiley, New York.
4. Eayerweather, W.H. International Business Strategy and Administration Ballinger Publishers, Cambridge Mass.
5. Hitt, Michael A., R.Duane Ireland and Robert E. Hokisson, Strategic Management: Competitiveness and Globalization, 4th Ed, South Western College Publishing, Australia, 2001.

Semester IV		406 – Technology Competition and Strategy
2 Credits	LTP: 2:0:0	Generic Elective – University Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO408.1	Remembering	DEFINE the key terms and concepts.
CO408.2	Understanding	EXPLAIN how technology affects strategic interactions among firms and consumers
CO408.3	Applying	DETERMINE the linkages Technology & Business Strategies
CO408.4	Analyzing	EXAMINE the technology environment of a firm.
CO408.5	Evaluating	APPRAISE the risks pertaining to technology and competition.

1. **Technology & Competition:** Competitive Domains, Competitive Consequences of Technological Change – Creation of New Products, Changes in the Value Chain, Changes in the Value Constellation, Competitive Rivalry. Technological Characteristics of Competitive Domains – Technological Opportunity, Appropriability, Resource Requirements, Collateral Assets, Institutional Milieu, Speed. Dynamics of Change in the Competitive Domain – Technology Emergence Phase, Incremental Change Phase. Framework for Analysis of Technology Emergence, Influence of Environmental trends on competition. Technology as critical to Business Outcomes – Technology Strategy and Technology Leadership. (5+1)

2. **Technology Intelligence:** Signals of New Technology, What is Technology Intelligence, Importance of Technology Intelligence, Levels of Technology Intelligence, External versus Internal Technology Intelligence. Mapping the Technology Environment – Steps in Mapping, Mapping the Macro-level and Industry Level Environment. Mechanisms for Data Collection – Challenges, Organizational Arrangements and Key Principles for Data Collection. Contemporary Challenges in Mapping the Technology Environment. (5+1)

3. **Business Strategy and Technology Strategy:** Business Strategy , Strategic Analysis and Decision Making using Product Evaluation Matrix, Market-Growth- Market-Share Analysis Matrix, X-Y Coordinating Method, M-by-N Matrix, SWOT Matrix, Formulation of Technology Strategy, Core Competencies, Exploitation of Core Competencies, Integration, Linking Technology & Business Strategies, Creating the Product-Technology-Business Connection.

Technology's Interface with – Market, Customers and Suppliers. Customer-Supplier and Product-User relationships. (5+1)

4. **Technology Strategy Choice:** Technology – Business Connection, Domains of Technology Choice, Linkages between Technology Choice and Competitive Advantage, Technology Strategy Definition, Role of Chief Technology Officer, Key principles underlying Technology Strategy – Objectives, Drivers, Decision criteria. Technology Strategy Types – Appropriateness of the Technology Strategy Types, Diversified Firms, A Framework for formulating Technology Strategy – Strategic Diagnosis, Formulation of Technology Strategy, Crafting and Implementation Approach, Execution. Technology Strategy – Superior Performance Characteristics. Accountability to various Stakeholders, Performance Measurement. (5+1)

5. **Technology Strategy – Collaborative Mode:** Collaborative Arrangements – Definitions, Trends, R&D Alliances, Marketing Alliances, Outsourcing Alliances, Collaboration between small and large firms, Strategic and Operational Reasons for Collaborative Arrangements. Collaborative Arrangements in the domain of Technology Strategy – Appropriation of technology, Deployment of technology in New Products, Deployment of technology in the Value Chain, Marketing of technology. Risks of Collaborative Activity – Intellectual Property Right Risk, Competitive Risk, Organizational Risk. Cases on R & D Collaborations, Global Technology Alliances. The form of Collaborative Arrangement. (5+1)

Suggested Text Books:

1. Managing Technology and Innovation for Competitive Advantage, V K Narayanan, Pearson Education.
2. Technology Management – Text and International Cases, Norma Harrison and Danny Samson, MGH.
3. Strategic Management of Technology & Innovation, Robert A Burgelman, Modesto A Maidique, Steven C Wheelwright, MGH International Edition.
4. Management of Technology – The Key to Competitiveness and Wealth Creation, Tarek Khalil and Ravi Shankar, TMGH, New Delhi.
5. Technology & Business Strategy – An Introduction, Edited by Prashanta Kumar Banerjea, ICFAI books.

Suggested Reference Books:

1. Managing Strategic Innovation and Change – A Collection of Readings, Michael L Tushman and Philip Anderson, Oxford University Press.
2. Management of Technology and Innovation – Competing through Technological Excellence, P N Rastogi, Response Books.
3. Utterback, James. "Invasion of a Stable Business by Radical Innovation." Chapter 7 in Mastering the Dynamics of Innovation. Cambridge, MA: Harvard Business School Press, 1994. ISBN: 9780875843421.

Semester IV		407 – Cyber Laws
2 Credits	LTP: 2:0:0	Generic Elective – University Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO407.1	Remembering	DEFINE the key terms and concepts pertaining to cyber laws.
CO407.2	Understanding	DESCRIBE the relevant legal provisions in detail.
CO407.3	Applying	DETERMINE the applicability of the legal provisions in a specific scenario.
CO407.4	Analyzing	OUTLINE the course of action in case of violation of the legal provisions.
CO407.5	Evaluating	EXPLAIN the various legal, social and international issues and the various remedies available under the Information Technology Act for the breach and commission of offence in cyber space

1. **Information Technology Act:** Evolution of the IT Act, Genesis and Necessity, Salient features of the IT Act, 2000; various authorities under IT Act and their powers; Penalties & Offences, amendments, Cyber Space Jurisdiction, Jurisdiction issues under IT Act, 2000. (5+1)

2. **E-commerce and Laws in India:** Digital/ Electronic Signature in Indian Laws, E-Commerce; Issues and provisions in Indian Law, E-Governance; concept and practicality in India, E-Taxation issues in Cyberspace, E-Contracts and its validity in India, Cyber Tribunal & Appellate Tribunal, Cyber Regulations. (5+1)

3. **Intellectual Property Rights:** Domain Names and Trademark Disputes, Concept of Trademark/ in Internet Era, Cyber squatting, Reverse Hijacking, Jurisdiction in Trademark Disputes, Copyright in the Digital Medium, Copyright in Computer Programmes, Copyright and WIPO Treaties, Concept of Patent Right, Relevant Provisions of Patent Act 1970. (5+1)

4. **Personal Data Security:** Sensitive Personal Data or Information (SPDI) in Cyber Law, SPDI Definition and Reasonable Security Practices in India, Reasonable Security Practices – International perspective, Cloud Computing & Law. (5+1)
5. **Cyber Law:** International Perspective, EDI : Concept and legal Issues, UNCITRAL Model Law, Electronic Signature Law's of Major Countries, Cryptography Laws, Cyber Law's of Major Countries, EU Convention on Cyber Crime. (5+1)

Suggested Text Books:

1. Cyber Law & Cyber Crimes by Advocate Prashant Mali, Snow White Publications, Mumbai
2. Cyber Law in India by Farooq Ahmad, Pioneer Books
3. Information Technology Law and Practice by Vakul Sharma, Universal Law Publishing Co. Pvt. Ltd
4. The Indian Cyber Law by Suresh T. Vishwanathan, Bharat Law House New Delhi
5. Guide to Cyber and E- Commerce Laws by P.M. Bukshi and R.K. Suri, Bharat Law House, New Delhi
6. Guide to Cyber Laws by Rodney D. Ryder, Wadhwa and Company, Nagpur

Suggested Reference Books:

1. The Information technology Act, 2000, Bare Act- Professional Book Publishers, New Delhi
2. Computer Forensics: Principles and Practices by Linda Volonino, Reynaldo Anzaldua and Jana Godwin; Pearson Prentice-Hall
3. First Responder's Guide to Computer Forensics by Richard Nolan et al; Carnegi Mellon

Semester IV		408 – Corporate Social Responsibility & Sustainability
2 Credits	LTP: 2:0:0	Generic Elective – University Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO408.1	Remembering	DESCRIBE What is CSR, Scope & Complexity, Companies Act 2013, when was CSR Initiated, Evolution, How CSR matters, Aims, objectives, Importance, Benefits of CSR, CSR in India ,CSR In global Context, Implementation .
CO408.2	Understanding	EXPLAIN the implications of CSR from the perspectives of employees, managers, leaders, organization and the Community.
CO408.3	Applying	MAKE USE OF the Theories and Principles and Frameworks of CSR in specific organizational settings.
CO408.4	Analyzing	DECONSTRUCT The Role of Companies towards the society and its impact on the community.
CO408.5	Evaluating	FORMULATE The companies how they are practicing CSR activities, Auditing the committees & Board of Committees, CSR Annual Reports.
CO408.6	Creating	ELABORATE UPON the challenges of the Companies in shaping organizational culture and Development of the society.

1. The Companies Act 2013 Sec 135 & Schedule VII , Committee , Board of Committee, Role of the committees. CSR Annual Report, CSR Sustainability Report, meaning and importance of Corporate Social Responsibility, Evolution of CSR, Benefits of CSR. Primaries of CSR, CSR and law of e economics, CSR and social legitimacy, CSR Expectations in rich and poor societies, The evolving role of stakeholders, Moral and economic arguments for CSR. (5+1)
2. The Role of stakeholders in CSR, Stakeholders advocacy, The role of business in society, Consumers awareness and willingness to pay for socially responsible corporate, Behavior, Globalization and CSR. Different stakeholder's different perspective for CSR, Success and failure with CSR initiatives, corporate response to citizen demands via CSR, The five stages of organizational growth with CSR. (5+1)
3. The strategic importance of CSR implementation, CSR a balance between organizational means and end, The strategic lens, vision, mission ,strategy and tactics. Environmental and other global forces propelling CSR, Impact of globalization and communication technologies, The strategic CSR model, The business level CSR threshold, Implementing CSR, CSR as a competitive advantage (5+1)
4. Practical Work, Case studies in organizational, Economic and Social CSR issues, Linking CSR Companies community, Organizational issues, action vs. intentions corporate commitment, voluntary Vs. mandatory stakeholders activism, Economic business issues- diversifying sustainability. (5+1)
5. Branding Strategy of CSR in Service Sectors – Financial, Hospital, Wellness, Health Care, NGOs and Public Services, CSR and Marketing, CSR as Organizational Brand Building, Identify the Indian & Global Companies Practicing CSR. Company's contribution in CSR and the community benefits(5+1)

Suggested Text Books:

1. Corporate Social Responsibility, Madhumita Chatterjee
2. CSR in India (Steering Business and Social Change) 1st Edition by Kshama V Kaushik, Lexis Nexis

- Corporate Social Responsibility Concept cases & Trends by Prabhakaran Paleri, Cengage Learning
- CSR & Sustainability by Michael Hopkins
- Corporate Social Responsibility by David Crowther and Guler Aras
- Corporate Social Responsibility in India by Sanjay K Agarwal
- Triple Bottom Line Reporting and Corporate Sustainability by S Singh, PHI – Eastern Economy Edition
- Ethics, Business & Society Edited by Ananda Das Gupta, Response Books
- Business Ethics by Crane and Matten, Oxford University Press, 2nd Edition
- Business Ethics – An Indian Perspective, by Ronald Francis and Mukti Mishra, TMGH

Suggested Reference Books:

- Six Essential Steps in Implementing CSR (2016) By V Reddappa Reddy and C Dheeraja.
- The Corporate Social Responsibility in India (Cases & Development after Legal Mandate) by Dr.Rene Schumpeter
- Corporate Social Responsibility in India, Cases and Developments after the legal Mandate, NayanaMitra and Rene Schmidpeter
- CSR Strategies-for a competitive edge in emerging markets by Sri Urip
- The Sustainable Enterprise –Profiting from best practice by Simmons and Simmons, Kogan Page,2nd Edition
- Business Ethics – Text and Cases by CSV Murthy, Himalaya Publications, 2nd Revised Edition
- Case Studies on Ethics and Corporate Governance Vol I and II, ICFAI Books
- Target 3 Billion- Innovative Solutions Towards Sustainable Development , A.P.J. Abdul Kalam, Srijan Pal Singh

Websites

www.india.gov.in
<https://www.un.org>

Journals

- Business & Society
- Journal of Business Ethics
- Ethics & Accountability in a Context of Governance & New Public Management

E-Resources

<https://www.youtube.com/watch?v=dy8kit9gnbM>
<https://www.youtube.com/watch?v=47Wtk0sGOng>
<https://www.youtube.com/watch?v=eIPdTts3La4>
<https://www.youtube.com/watch?v=PDyzNBcD2nM>
https://www.youtube.com/watch?v=yv_e1fy3Gsk
<https://www.youtube.com/watch?v=FqyaYljTjEw>

**Subject Core (SC) Courses - Semester III
 Specialization: Marketing Management**

Semester III	SC – MKT - 03	304 MKT: Services Marketing
3 Credits	LTP: 2:1:1	Subject Core (SC) Course – Marketing Management

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO304 MKT.1	REMEMBERING	RECALL the key concepts in services marketing
CO304 MKT.2	UNDERSTANDING	Describe the role of Extended Marketing Mix in Services in managing consumer behavior and in improving service quality.
CO304 MKT.3	APPLYING	Identify concepts related to service experience in the context of real world offering.
CO304 MKT.4	ANALYSING	Examine the elements of services marketing and service quality in contemporary context.
CO304 MKT.5	EVALUATING	EVALUATE Segmentation, Targeting & Positioning of Services and assess its importance and challenges in the dynamic marketing environment
CO304 MKT.6	CREATING	DEVELOP marketing mix, service blueprint and servicescapes for various services offering

1. Services Marketing- An Insight into Emerging Sector of Economy:

Introduction, Nature & Definition of Services, Difference between goods & Services: Service-Continuum, Key

classifications of the Services, Service Characteristics; Traditional elements of Services Mix; Need for extended marketing mix elements in Services. Need to study Service Marketing: Evolution of Services as Value Contributors, Service Sector beyond 2020 - Indian, Asian & Global perspectives [7+2+2]

2. Role of Process, People & Physical Evidence in Services Marketing:

Process - Service system - Service system, Importance of Process in Services; Service Blueprint; Mapping the Process- Horizontally & Vertically; Variety in Service Process; Value addition in Process.

People- The Key to a Service Marketing; People Dimensions in Services Marketing; Service Encounters; High-Contact & Low-Contact Services; Emotions in Service Situations; Service Profit Chain; Service Culture Servicescape: Physical Evidence- Contribution of Physical Evidence to the Service Understanding, Managing the Physical Evidence in Service Marketing [7+2+2]

3. Managing Consumer Behavior & Service Quality:

Consumer and Organizational Behavior in Services – Understanding Our Customers & Collaborators in services, stages of service consumption Service Quality- Levels & Dimensions; Service Quality Models - ServQual, GAP Model and Critical Incident Model. Managing demand and capacity - capacity constraints, understanding demand patterns, strategies for matching and adjusting capacity and demand Service Recovery, Service Recovery Process, Impact of Service Failures, Nature of Complaining Behavior-Complaint Resolution [7+2+2]

4. Segmentation, Targeting & Positioning of Services in Modern Era:

Bases for Segmentation of Services; Selecting Target Market & Approaches; Techniques of Positioning Services. Managing of Relationships in Services Marketing, service marketing triangle, Current customer retention and customer lifetime value. Importance & Challenges for STP of services in modern era. [7+2+2]

5. Marketing of Services: New Paradigm and Perspectives:

Customer as the Centre of Attention; Services as Key Differentiators; New Service Opportunities: Emergence of Work from Home, Automation & New Technologies in Services; Service Marketing Opportunities in India

Applications of Service Marketing: Marketing in Tourism, Retail, Hospitality, Airlines, Telecom, IT & ITES, Sports & Entertainment, Logistics, Health Care Sector, Event Management Services and Banks & Financial Sector, on-Profit Organizations. Emergence of e-services in various sectors [7+2+2]

Note: Relevant cases must be discussed for the above all units.

Suggested Text Books

1. Service Marketing Concepts Applications & Cases Mk Rampal, S. Gupta, Galgotia Publishing Company
2. Services Marketing: People Technology Strategy, by Wirtz Jochen, Lovelock Christopher, Chatterjee Jayanta, Pearson Education; 8th edition (2017)
3. Services Marketing by Zeithaml, Bitner, Gremler & Pandit, TMGH, 4th Edition
4. Services Marketing: Global Edition by Christopher Lovelock, Jochen Wirtz, Pearson Education; Services Marketing- Valarie A Zeithaml, Mary Jo Bitner, Dwayne D. Gremler, Ajay Pandit, McGrawHill

Suggested Reference Books

1. Service Management: Operations, Strategy, and Information Technology, James A. Fitzsimmons, Mona J. Fitzsimmons, McGraw-Hill/Irwin, 2006
2. Services Marketing: Concepts and Practices by Ramneek Kapoor, Justin Paul & Biplab Halder, McGraw Hill
3. Services Marketing by Rajendra Nargundkar, McGraw-Hill, 3rd Edition
4. Services Marketing, 2nd Edition by Rao -Pearson
5. Service Marketing - by C. Bhattacharya, Excel Books
6. Services Marketing – K. Rama Mohana Rao, Pearson; 2 edition (2011)

Suggested Audio Visuals link

1. <https://www.youtube.com/watch?v=5MBEHY7Q0Ls>
2. <https://www.youtube.com/watch?v=xFvbgddv7C4>
3. <https://www.youtube.com/watch?v=1zYsQsJvbog>
4. <https://www.youtube.com/watch?v=MnsVEKEqVoM>

Suggested Journals

1. Journal of Services Marketing Information
2. Journal of Services Marketing; Emerald Group Publishing Ltd.
3. International Journal of Service Marketing (IJSM)

Suggested Swayam Course

1. Services Marketing: A Practical Approach Indian Institute of Technology, Kharagpur and NPTEL via Swayam
2. Services Marketing - The Next Level via Open Learning
3. Service Marketing: A practical approach By Prof. Dr. Biplab Datta
4. Services Marketing: Integrating People, Technology, Strategy By Prof. Zillur Rahman

Semester III	SC – MKT- 04	305MKT: Sales & Distribution Management
3 Credits	LTP: 3:1:1	Subject Core (SC) Course – Marketing Management

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO305MKT.1	REMEMBERING	DESCRIBE the theoretical concepts related to Sales and Distribution Management Domain.
CO305MKT.2	UNDERSTANDING	UNDERSTAND the role, concepts, importance, techniques and approaches required for effective designing and implementation of various aspects in the Sales and Distribution Management.
CO305MKT.3	APPLYING	APPLY various concepts related to Sales and Distribution Management.
CO305MKT.4	ANALYZING	ANALYZE the real-life issues related to design and implementation of Sales and Distribution Management Strategy.
CO305MKT.5	EVALUATING	EVALUATE suitability of alternative Sales and Distribution Management strategies of an organization.
CO305MKT.6	CREATING	DESIGN and implement Sales and Distribution Management Strategies for an organization.

1. Overview of Sales Management:

- a. Meaning, Evolution, Nature and importance of sales management, Strategic role of sales management, Objective and functions of sales management, Emerging trends in Sales Management,
- b. Careers in Sales Management; Skills required for Sales Managers.
- c. Impact of Technology on Sales: ERP, Social Platforms, Introduction of Sales Force Automation Systems (SFA) and Mobile technology in sales. **(7+2+2)**

2. Organizing the Sales Force:

- a. Sales Organization - meaning, Objectives & Structures of Sales Organization, Recruitment, selection and training the sales force, motivation to sales force, Compensation and Evaluation of Sales Force. Duties and Responsibilities of Sales Managers and the Effective Sales Executive.
- b. Personal Selling: Objectives; Personal Selling Process; Relationship selling. **(7+2+2)**

3. Sales Planning and Control:

- a. Sales Planning Sales Forecasting & Budgeting, Sales Quotas and Targets.
- b. Sales Control: Reporting Formats for Primary and Secondary Sales, Monthly Sales Plan, Territory Sales and Coverage Plan, Daily Sales Call Report, Expired Goods and Breakage Return Report, Fortnightly Sales Review Report, Order Booking Report, Monthly and Quarterly Sales Report.
- c. Sales Audit: Sales Force Productivity Indicators (Value and Volume); Territory Productivity, per Person per Month Productivity, Sales to Marketing Expenses Ratio. **(7+2+2)**

4. Distribution Management:

- a. Distribution Management: Introduction, need and scope of distribution channels; Marketing channels strategy; Levels of channels; Designing Channels; Selection and Recruitment of Channel Partners; Channel Conflicts; Techniques to resolve channel conflicts; Emergent changes in service level expectations from channel members, Distribution of services and industrial products
- b. Channel Management Decisions; Channel policies, Concept of Vertical Marketing System (VMS) and Horizontal Marketing System (HMS)
- c. Channel Information System: Meaning, purpose, Developing channel information system, Elements of Channel Information System, Channel performance evaluation criteria
- d. Franchising: Significance and importance of Franchisee in Channel Decision; Advantages of Franchisee; Process of appointment of Franchisee; Franchisor-Franchisee relationship. ROI calculation at Dealer Level. **(7+2+2)**

5. Wholesaling, Retailing & Logistics Management:

- a. Wholesaling: Meaning, functions, classification of wholesalers, Major wholesaling activities and decisions,

Challenges faced due to Omni channel and Multichannel systems.

- b. Retailing: Meaning, Types of Retailers and retailing formats, Retail strategies, E-Tailing: Structure and Developments in E-tailing, Advantages & Disadvantages of E-Tailing.
- c. Concept & scope of logistics, Reverse Logistics 3PL and 4PL partners in distribution, Components of logistics – warehousing decisions, Transportation decision, Inventory management decisions: Concept of EOQ, ROP, JIT, online inventory management.
- d. Concept and scope of Supply chain management, Components of Supply Chain Management. **(7+2+2)**

Suggested Text Books:

1. Sales and Distribution Management by Havaladar & Cavale, TMGH
2. Sales Management by Still, Cundiff & Govani, Sandeep Puri Pearson Education
3. Sales and Distribution Management by SL Gupta, Excel books
4. Fundamentals of Selling, 12th Ed, Charles Futrell, McGraw Hill Irwin
5. Retail Marketing by Swapna Pradhan TMGH
6. Retailing Management by Michael Levy & Barton Weitz, TMGH
7. Handbook of Logistics & Distribution Management by John L. Gattorna, Jaico Books

Suggested Reference Books:

1. Sales and Distribution Management- Tapan K Panda, Sunil Sahadev, Oxford Higher education.
2. Sales and Distribution Management – A Nag, McGraw Hill Publication
3. Management of Sales Force-Rosann Spiro, William Stanton, Gregory Rich; TMGH
4. Retail Management by Gibson Vedamani , Jaico Books
5. Retail Management by Bajaj, Tuli, Shrivastava, Oxford
6. What the CUSTOMER wants you to KNOW by Ram Charan; Penguin Books India Pvt. Ltd.

Online Data Source:

1. <https://bookboon.com/en/search?query=sales+management>

Suggested Online Courses:

1. Sales and Distribution Management by Prof. Sangeeta Sahney IIT Kharagpur
2. Sales Training: Practical Sales Techniques-Udemy
3. The Art of Sales: Mastering the Selling Process Specialization-Coursera

**Subject Elective (SE) Courses - Semester III
Specialization: Marketing Management**

Semester III	SE -IL -MKT- 07	312 MKT: Business to Business Marketing
2 Credits	LTP: 1:1:1	Subject Elective (SE) Course – Marketing Management

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO312 MKT.1	REMEMBERING	DEFINE the terms and concepts related to Business to Business marketing
CO312MKT.2	UNDERSTANDING	EXPLAIN the terms and concepts used in business to business marketing
CO312 MKT.3	APPLYING	IDENTIFY challenges and opportunities in Business-to-Business Marketing.
CO312 MKT.4	ANALYSING	FORMULATE segmentation, targeting and positioning, consumer buying behavior and marketing mix in the context of Business to Business marketing
CO312MKT.5	EVALUATING	DESIGN marketing mix elements considering business-to-business sales and service situations.
CO312MKT.6	CREATING	DEVELOP marketing plan for business-to-business Marketing situations.

1. Overview of Business-to-Business Marketing

Introduction to Business-to-Business Marketing: Business, Organizational & Government Markets, Organizational Buying Behavior, Concept of the Business-to-Business (B2B) Marketing, Comparison of Business-to-Business & Business-to-Consumer Marketing. Buying Situations, Buy grid Framework, Role of Buying Centre, Models of B2B Marketing – Webster & Wind Model, Sheth Model, Impact of Macro/Micro Environmental factors on decision making. **[3+1+1]**

2. Segmentation, Targeting & Positioning for B2B Markets:

Market Segmentation Bases: Macro Variables - Industry Characteristics, Company Size, Customer Location, End User Markets, product Applications. Micro Variables: Customer Interaction needs, Organizational Capabilities, Purchasing Policies, Purchasing Criteria, and Personal Characteristics. Target Markets: Concentrated Marketing, Differentiated Marketing, Undifferentiated Marketing. Criteria used for choosing a target market. Positioning [3+1+1]

3. Product and Pricing Strategy for B2B Markets:

Industrial Products: Definition of an Industrial Product, Industrial Product Lifecycle & Strategies across the PLC, Product strategies for New Products and Existing Products, Costs, volume and Experience curve. After Sales Service – Importance, Use of Innovation, Competitiveness & Technology. Strategies used for marketing of Projects, Industrial Services, and High technology products. Pricing: Factors influencing Pricing Decisions, Pricing Strategies – Competitive bidding, Pricing of New Products, Pricing Policies, Commercial Terms and Conditions, Contracts, Hiring & Leasing, Negotiation, Bargaining, Persuasion & Conviction. Methods used to Influence Industrial Customers, Special Dealing between Buyer and Sellers, Reciprocity, Ethical Issues. International Market based pricing [6+1+1]

4. Promotion Mix for B2B Markets:

Personal Selling: Role & Characteristics of Personal Selling, Development & Management of Sales Force, Key Account Management - ABC Analysis of Industrial Customers. Promotions: Developing Industrial Communication Program, Trade Shows, Exhibitions, Catalogues, Samples, Public Relations, and Advertising. [4+1+1]

5. Distribution Channels and Current Trends for B to B markets :

Distribution Channels: Distinctive Nature of B To B Distribution Channels, Types of Industrial Middlemen, Channel Flow Design, Formulating Distribution Strategies and Cost Benefit Analysis, Current Trends for B to B markets: Use of Social Media, Use of technology in branding, Use of digital platforms by B to B organizations, Virtual Marts. [4+1+1]

Suggested Text Books:

1. Industrial Marketing: Text and Cases Krishna K. Havaladar Tata McGraw-Hill Education
2. Industrial Marketing By Hill, Alexander and cross, Irwin
3. Industrial Marketing by Mukerjee, Excel Book

Suggested Reference Books:

1. Business to Business Marketing by Ross Brennan, Louise Canning, Raymond Macdowell
2. industrials Marketing by Mathur, New age international Publishers

Supplementary Reading Material:-

1. Marketing White Book (Latest edition)

Journals:

1. Industrial Organization and Customer Relationship Management: The Impact on Customer Service Orientation in B-to-B Markets by Lancioni, Richard; Smith, Michael; Stein, Alex., Journal of Management & Public Policy. Jul- Dec2009, Vol. 1 Issue 1, p57-88.
2. My years with B2B Marketing in India: Reflections and Learning's from A Journey of 40 Years by Sarin, Sharad., Journal of Business & Industrial Marketing. 2012, Vol. 27 Issue 3, p160-168
3. Approaching Global Industrial Marketing from a Managerial Cognition Perspective: A Theoretical Framework by Madhavaram, Sreedhar; Badrinarayanan, Vishag; Granot, Elad., Journal of Business & Industrial Marketing. 2011, Vol. 26 Issue 7, p532-541
4. The Marketing Mix Revisited: Towards the 21st Century Marketing by Constantinides, E., Journal of Marketing Management. Apr2006, Vol. 22 Issue 3/4, p407-438
5. Marketing-Industrial Design Integration in New Product Development: The Case of China by Zhang, Dan; Hu, Peng; Kotabe, Masaaki. Journal of Product Innovation Management. May2011, Vol. 28 Issue 3, p360-373

Suggested MOOCs:

- 1) International B2B (Business-to-Business) Marketing on Coursera
- 2) B2B Marketing Foundations Training (LinkedIn Learning – Lynda)
- 3) B2B Pricing Strategy Online Program (IMD)

Semester III	SE – IL – MKT - 08	313MKT:International Marketing
2 Credits	LTP: 2:1:1	Subject Elective (SE) Course – Marketing Management

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO313MKT.1	REMEMBERING	DESCRIBE various terms and key concepts associated with international marketing.
CO313MKT.2	UNDERSTANDING	EXPLAIN various key concepts used in all aspects of international marketing.
CO313MKT.3	APPLYING	ILLUSTRATE all stages in international marketing management process.
CO313MKT.4	ANALYSING	EXAMINE various facets of international marketing environment and the relevant aspects of international marketing management process from a data driven decision perspective.
CO313MKT.5	EVALUATING	JUDGE suitability of alternative market segmentation bases, target market selection, market entry strategies, positioning strategies and international marketing mix strategies based on assessment of international marketing environment.
CO313MKT.6	CREATING	DESIGN appropriate market segmentation, target market, market entry strategies, positioning strategies and international marketing mix strategies for global business organizations.

1. **Introduction:** Meaning, Nature, Scope and Importance of International Marketing; Management Orientations in the context of International Marketing EPRG Framework; Overview of International Marketing Management Process; International Marketing Environment and Its Effect on International Marketing–Economic Environment, Trade Environment, Social and Cultural Environment, Political Environment, Legal and Regulatory Environment, Demographic Environment, Natural Environment, Technological Environment. **(5+1+1)**
2. **Approaching International Marketing:** International Marketing Information System and International Marketing Research; International Market Segmentation; Target Market Selection; International Market Entry Strategies; International Positioning Strategies. **(5+1+1)**
3. **International Marketing Mix I:**
 - a) **International Product Planning:** Major Product Decisions - Product Features and Quality, Product Design, Branding, Packaging, Labeling, and Product Support Services; Product Standardization vs. Adaptation; New Product Development; IPR Issues; International Product Life Cycle; Managing Product Mix and Product Line.
 - b) **Pricing for International Markets:** Factors affecting International Price Determination; Pricing Strategies for International Markets; Price Quotations and Terms of Sale, Delivery and Payment; Dumping; Gray Market; Transfer Pricing. **(5+1+1)**
4. **International Marketing Mix II:**
 - a) **Managing International Promotion:** International Promotion Mix Decisions: Advertising, Sales Promotion, Public Relations and Publicity, Personal Selling, Direct Marketing; Standardization vs. Adaptation issue; Developing International Promotion Campaign.
 - b) **Managing International Distribution:** Designing International Distribution Channels; Management of International Distribution Channel; Distribution Channel Dynamics; International Logistics Management. **(5+1+1)**
5. **Managing International Marketing in 21st Century:** Patterns of International Marketing Organization; Leadership; Role and Significance of Digital Marketing and International Marketing; Developing International Competitiveness; Ethics, CSR and Social Responsiveness in Globalization Era. **(5+1+1)**

Suggested Text Books:

1. Global Marketing Management by Keegan Warren J. and Green M.C. Pearson Education.
2. International Marketing: Analysis and Strategy by SakOnkvisit and John Shaw, Prentice Hall of India.
3. International Marketing by Cateora, Graham and Salwan, McGraw-Hill.
4. International Marketing Management by Subhash Jain, CBS Publishers & Distributors.
5. International Marketing by Rakesh Mohan Joshi, Oxford University Press.
6. International Marketing by Rajgopal, Vikas Publishing House.

Suggested Reference Books:

1. International Marketing by Czinkota and Ronkainen, Cengage Learning.
2. Global Marketing Management by Kotabe and Helsen, Wiley Publication.

3. International Marketing by Terpstra Vern and Sarathy Ravi, The Dryden Press.
4. Global Marketing by Svend Hollensen, Prentice Hall.
5. International Marketing: An Indian Perspective by Varshney R. L. and Bhattacharya B., Sultan Chand and Sons.
6. International Marketing by PK Vasudeva, Excel Books.

Semester III	SE - IL – MKT - 09	314 MKT: Digital Marketing II
2 Credits	LTP: 1:1:1	Subject Elective (SE) Course – Marketing Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 314MKT.1	REMEMBERING	DEFINE the key terms and concepts related with digital marketing
CO 314MKT.2	UNDERSTANDING	EXPLAIN the role of Facebook, Google Ad words, Youtube, Email marketing and other related tools in digital marketing.
CO 314MKT.3	APPLYING	MAKE USE OF Facebook, Google Ad words, Youtube and Email marketing and other related tools for carrying out digital marketing for given situation.
CO 314MKT.4	ANALYSING	ILLUSTRATE the use of Facebook, Google Ad words, Youtube and Email marketing and other related tools in given situation.
CO 314MKT.5	EVALUATING	DESIGN digital media campaign using appropriate mix of Facebook, Google Ad words, Youtube and Email marketing and other related tools.
CO 314MKT.6	CREATING	CREATE appropriate content for a digital marketing campaign.

1. Website Development and Analytics:

1.1 Website development basics, webpage, website structure, the interlinkage of working between search engine and website pages. Website development on free to use platform of google. Managing the content on website and mobile application. Different types of web presence blog, stand alone website, websites on internet aggregation platforms.

1.2 Application of Website Analytics, Different types of Web Analytics, Social Web Analytics, Mobile Web Analytics, Conversion Web Analytics, Key Performance Indicators, Google Analytic, Benefits of using Google Analytics, Clicky vs. Google Analytics, Website Traffic Measurement Metrics.(5+1+1)

2. Digital Marketing Tool and platforms:

2. 1 Google Adwords: Understanding Adwords, Google Ad Types, Pricing Models, PPC Cost Formula, Ad Page Rank, Adwords User Interface, Keyword Planning, Keywords Control, Creating Ad Campaigns, Creating Text Ads, Linking Google Analytics, Designing Remarketing Images.

2. 2 Affiliate Marketing, Influencer marketing

2.3 What is Traffic? Type of Traffic How to analyze & Track Traffic (Google analytics), Ways to Increase Traffic, What is affiliate Marketing, Cost per Action (CPA) (5+1+1)

3. Email Marketing:

3.1 Content Writing: Email Machine –The Strategy, Email Frequency, Why People Don't Buy, The Fuel –Value, Triggers in Email using 4Ps, Sequence of Email Triggers, Email Example - Topic, Intro, Product, Secondary Value, Fear, Regret, Ask for Sales, Reinforcement, Offers Announcements, Urgency, Cross Sales, Re-Engagement.

3.2 Buyer vs Consumer. Planning Email Campaign, Email Templates and Designs. (5+1+1)

4. Social Media Marketing I:

4.1 Introduction to Social Media, Advantages Over Online Marketing, Social Media Strategy. Understanding Web and Mobile Marketing perspective. B to C Perspective, B to B Perspective

4.2 Facebook Marketing: Understanding of Facebook Marketing, Types of Facebook Advertising, Creating first ad on Facebook, Setting Campaign and optimization, Facebook Power Editor, Facebook Video Marketing, Facebook App & Shopping Marketing, Facebook ad library, Traffic and Leads Generation.

4.3 Twitter Advertising: Twitter Advertising, Types of Twitter Advertising, Creating first ad on Twitter Setting Campaign and optimization, Create conversion code, Twitter App Advertising, Twitter Video Advertising Leads & Traffic Advertising Increase followers, Twitter Marketing, Strategy and Planning, Tracking and Conversion.

4.4 Youtube Marketing: YouTube Marketing Strategy, Find Video Ideas with Competitor Analysis, Find Video Ideas with Keyword Research, Find Video Ideas with Keyword Research, YouTube Account Setup (Create business account with personal account), YouTube Account Optimization, YouTube Banner, YouTube Channel

Tags , YouTube SEO ,Enable Custom Thumbnails, Manage Multiple YouTube Accounts , YouTube Monetization, YouTube Ads, YouTube Analytics (5+1+1)

5. Social Media Marketing II:

5.1 Instagram Marketing: Instagram Business Account Setup, Follow These Instagram Accounts, Instagram Profile Image, Instagram Bio, Instagram Content Creation, Instagram Reposting, Instagram Followers Hack , Instagram Hashtags, Instagram Stories, Instagram Spam (reduce spam), Instagram Analytics.

5.2 LinkedIn Advertising: What is LinkedIn advertising? Creating first ad on LinkedIn, Setting Campaign and optimization, Create conversion code, Types LinkedIn Advertising, LinkedIn New feed Advertising, LinkedIn Message Advertising, Traffic and Leads Generation, Billing and Report.

5.3 Pinterest Marketing: Why market your business on Pinterest, Pinterest account setting, Pinterest account to follow, Pinterest account optimization, account verification, Pinterest board, Pinterest follower, Pinterest graphics, Pinterest chrome extension. (5+1+1)

Note: The teacher may use practical assignments for evaluation.

Suggested Text Books:

1. Internet Marketing, Dave Chaffey, Fiona Ellis-Chadwick, Kevin Johnston, Richard Mayer, Pearson Education.
2. Digital Marketing, Oliver J Rich.
3. Online Marketing, Gerry T. Warner and Joe Wilson Schaefer.

Suggested Reference Books:

1. Digital Marketing, Prof. Seema Gupta, Mcgraw Hill Publications.
2. E- Marketing by Judy Strauss, Adel Ansary, Raymond Frost, Prentice Hall.
3. Social Media Marketing All-In-One for Dummies, Jan Zimmerman and Deborah.
4. Google Adwords for Beginners: A Do-It-Yourself Guide to PPC Advertising, Cory Rabazinsky.
5. Email Persuasion: Captivate and Engage Your Audience, Build Authority and Generate More Sales with Email Marketing, Ian Brodie

Supplementary Reading Material:

1. Journal of Internet Marketing and Advertising.
2. International Journal of Electronic Commerce.
3. International Journal of Electronic Retailing and Marketing.
4. International Journal of Online Marketing.

Websites:

1. www.smartinsights.com/digital-marketing-strategy/customer-segmentation-targeting/segmentationtargeting-and-positioning/
2. www.ibef.org
3. www.salesforce.com/Digital/Marketing

Suggested MOOCs:

1. Fundamentals of Digital Marketing- By Google
<https://learndigital.withgoogle.com/digitalunlocked/course/digital-marketing>
2. Digital Tools Certification- By Google
<https://skillshop.exceedlms.com/student/catalog>
3. Online SWAYAM certification
https://swayam.gov.in/nd2_ugc19_hs26/preview

Audio Visuals Link:

1. Free You Tube Channel:
https://www.youtube.com/channel/UCBDgBiaon_9MMMVCumg-v1g
2. Free You Tube Channel:
https://www.learndigitalmarketing.com/?source=ga_ldm_default&gclid=EAlaIqobChMlXlHy65aO6QIVA5GPCh0jWw4ZEAAyAIAAEglpE_D_BwE

Semester III	SE - IL – MKT - 10	315 MKT: Marketing of Financial Services - II
2 Credits	LTP: 1:1:1	Subject Elective (SE) Course – Marketing Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO315MKT.1	REMEMBERING	REMEMBERING -RECALL the key terminology of Financial Services, Mutual fund, Insurance products and other alternative investment products.
CO315MKT.2	UNDERSTANDING	UNDERSTANDING: Compare the characteristics of different types of financial products and services.
CO315MKT.3	APPLYING	APPLYING: IDENTIFY characteristics, risks and returns associated with financial products and services offered in Indian Market from an investment advisor's perspective.
CO315MKT.4	ANALYSING	ANALYSING - Compare the different financial products available in Indian financial market
CO315MKT.5	Evaluating	EVALUATING - EVALUATE the financial products and services from an investment perspective for various kinds of investors.
CO315MKT.6	CREATING	CREATING: Design Financial Product Portfolio for Indian Investor

1. Financial Market Fundamentals:

Role & contribution of Financial Services, Financial Services Marketplaces: Structures, Products, Participants, Introduction to financial services Industry, Distinctiveness of financial services in India, Introduction to Financial Market Fundamentals ,Key terminologies in financial markets, Equity Markets: Capital Markets, Role in the Economy, Bond Markets, Regulatory aspect of Financial market, Debt Instruments: Debt instruments and their classification based on type of issuer, and basis characteristics. Money Market Instruments (such as Certificate of Deposit, Re-purchase 'Agreements etc.)

2. Mutual Funds: Basic Concepts: Mutual Funds and their importance, Various entities of a Mutual Fund and their role, overview of NAV, Types of Mutual funds based on structure, investment objective and investment plan, Relative risks associated with various Mutual Funds in India. Basic understanding of ETFs and their key features. Differences between a Mutual Fund and an ETF. Marketing Mix of Mutual Funds.

3. Insurance: Basics of Insurance: Basic understanding of insurance products, types of insurance policies – Role of IRDA, Insurance industry in India. General Insurance: Types of liabilities covered, Basic concept of Life Insurance, its beneficiaries and its types, Concept of Term Insurance and its various types, Traditional Life Insurance and its difference from Term Insurance, Whole Life Policy and Endowment Policy and the differences between them. ULIP and General Insurance, Marketing Mix of Insurance services.

4. Wealth Management: Wealth management for high net worth individuals (HNWI), Goal-Based Planning Approach, a full range of tailored financial service offerings, Wealth management scope- Asset Management, Financial Planning (specific short term and long term goals), Tax Planning , IT Act 1961 – 80C, 80 D, Estate Planning, succession planning. Global trends in Wealth management services. Opportunities and challenges for technology in the wealth management services. Current state and future potential for wealth management, customer segment, consumer behaviour, wealth management service providers in India, regulatory environment competencies & skills of a wealth manager, ethics and transparency for wealth management professionals, Case study of wealth management, Retirement Planning. (5 +1)

5. Risk and Returns: Segmenting Clients Based on The Risk- Return Principle: Risk taking behavior of the client during various stages of human life, clients' comfort zone for investment, Risk Tolerance, determining investment objectives. Asset Classes and Portfolio: Various asset classes, Portfolio classification based upon the proportion of various asset classes. Asset Allocation, Risk profile of the portfolio, Performance indices of the portfolio - Money Weighted Returns, Risk Adjusted Return, Sharpe Ratio, Treynor Ration, etc., Analyzing performance of portfolio according to the asset class and the markets.

Suggested Text Books:

1. Financial Services, M Y Khan, Tata McGraw-Hill
2. Financial Services & Markets, Dr. Punithavathy Pandian, Vikas Publication
3. Marketing of Financial Services, V.A. Avadhani, Himalaya Publishing House
4. Financial Services Marketing, Christine Ennew , Nigel Waite
5. Financial Services, Nalini Prava Tripathy, Prentice Hall of India Private Limited

Added suggested Books:

1. Emerging Perspectives on the Marketing of Financial Services.

Semester III	SE - IL – MKT - 11	316MKT:Marketing Analytics
2 Credits	LTP: 1:1:1	Subject Elective (SE) Course – Marketing Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO316MKT.1	REMEMBERING	DEFINE various key concepts in Marketing Analytics
CO316MKT.2	UNDERSTANDING	DESCRIBE various key concepts in Marketing Analytics
CO316MKT.3	APPLYING	IDENTIFY what customers’ value in a product/service, and assess what they are willing to pay for it.
CO316MKT.4	ANALYSING	EXPLAIN the use of various models and frameworks to solve marketing problems using marketing data
CO316MKT.5	EVALUATING	MEASURE the effectiveness of marketing efforts and key outcomes in multiple areas of Marketing.
CO316MKT.6	CREATING	DESIGN a study that incorporates the key tools and techniques of Marketing Analytics

1. Introduction to Marketing Analytics:

Business Decision making, Business Analytics; Marketing Analytics – Types, Nature (Descriptive, Prescriptive, Predictive), Process of marketing Analytics, Marketing data, Understanding important metrics in Marketing, Analytics in various Marketing Applications (Scope), Introduction on Tools & Techniques used in Marketing Analytics, Summarizing Marketing data, Basic statistical concepts applicable e.g. Simple Linear Regression, Multiple Linear Regression and Conjoint Analysis [4+1]

2. Analytics on Forecasting and Pricing Analytics:

Forecasting- Correlation, Simple Regression and Multiple Regression to forecast sales, Modeling Trend and Seasonality, Ratio to Moving Average Method, Forecasting New Product sales -Using ‘S’curves, Concepts-The Bass diffusion model, The Copernican principle to predict duration. **Pricing Analytics** - Optimization, Practical applications of price analytics, ROI concept, Consumer preference, choice, Conjoint Analysis, Logistic regression [5+1]

3. Customer Profitability and Analytics on Sales & Distribution:

Cluster Analysis, Collaborative Filtering, Classification Trees for Segmentation. Customer intelligence (CI) for predictive analytics, Customer Life Time Value (CLTV), How to calculate CLTV, Customer churn, Metrics for Customer Acquisition and Retention, Customer Equity, Customer Loyalty, Cohort analysis, Monte Carlo Simulation and Marketing Decision making. **Analytics on Sales & Distribution:** Metrics for Sales, profitability, Sales Force Sizing, Effort (call planning), Territory Planning, Target Setting, Compensation Planning, and Analytics based channel evaluation and selection [6+1]

4. Analytics on Retailing, Topline and Bottom-line Goals, Right Pricing, Point of Sales data, Market Basket Analysis Lift, RFM Analysis, SCANPRO model, Allocating Retail Space and resources. [4+1]

5. Analytics on Promotion Web and Social Media Analytics:

Marketing Mix Models, Brand assets and Brand equity, Brand Funnel Analysis, Measuring effectiveness of advertisement, Media Selection Models, PPC and Online Advertising, Allocation of marketing budgets over multiple campaigns, Google Analytics, Measuring effectiveness of Social Media Advertising, Facebook and Twitter analytics, Viral Marketing and Text mining, Applying Text Mining in Real Life Scenarios, Google Analytics[6+1]

Suggested Reference Books:

1. Marketing Analytics by Wayne L. Winston, Publisher – John Wiley & Sons Inc.
2. Business Analytics by U. Dinesh kumar, Publisher – John Wiley & Sons
3. Data Mining Techniques in CRM by Konstantinos K. Tsiptsis, Antonios Chorianopoulos -Publisher – John Wiley & Sons.
4. Marketing Research by Dr. Rajendra Nargundkar, Publisher Tata McGraw Hill
5. Relationship Management- Text & Cases by S. Shajahan. Publisher T.M G.H

Suggested E- Books:

1. Marketing Analytics Roadmaps-Method, Metrics, and Tools by Jerry Rackley- Published-Apress
2. Marketing Analytics: Data-Driven Techniques with Microsoft Excel by Wayne L. Winston, Publisher- John Wiley & Sons, Inc.
3. Pricing, Online Marketing Behavior, and Analytics by Giampaolo Viglia, Publisher- Palgrave Macmillan
4. Everything You Need To Know About Customer Lifetime Value (CLV) – DEMAC Media

5. Facebook Marketing for Dummies, Amy Porterfield, Phyllis Khare, Andrea Vahl. Publisher – John Wiley& Sons Inc.
6. Social Media Marketing by Dave Evans with Jake Mckee. Publisher – John Wiley& Sons Inc

Semester III	SE - IL - MKT- 12	317MKT: Marketing of High Technology Products
2 Credits	LTP: 1:1:1	Subject Elective (SE) Course – Marketing Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO317.1	REMEMBERING	DESCRIBE the characteristics of High Technology Products and key concepts associated with Marketing of High-Tech Products.
CO317.2	UNDERSTANDING	EXPLAIN key concepts associated with Marketing of High-Tech Products.
CO317.3	APPLYING	APPLY marketing plans and decisions in specific situations in High-Tech Markets.
CO317.4	ANALYSING	EXAMINE the suitability of Marketing Mix Strategies/Plans in the light of marketing environment for high Tech products.
CO317.5	EVALUATING	EVALUATE alternative Marketing Mix Strategies/Plans for High-Tech Products.
CO317.6	CREATING	DEVELOP Marketing Mix Strategies/Plans for High-Tech Products.

1. Introduction to High Technology Marketing:

Definition, Common Characteristics of High Technology, Continuum of Innovations - Radical/Breakthrough Innovations -Incremental Innovations - Implications of Different Types of Innovations - Contingency Model for High-Tech Marketing - Does Marketing Need to Be Different for High-Technology Products and Innovations? - Framework for Making High-Technology Marketing Decisions. **(5+1)**

2. Product and Branding decisions in High-Tech Markets:

Market Orientation, R&D–Marketing Interaction, High-Tech Marketing Research Tools - Concept Testing - Conjoint Analysis - Customer Visit Programs - Empathic Design - Lead Users - Quality Function Deployment - Prototype Testing - Beta Version Testing, Technology Development – The “What to Sell” Decision–Developing Services as Part of the High-Technology Product Strategy, Implications for High-Tech Marketing - Protection of Intellectual Property - Understanding Gray Markets –Piracy, and Restricted Exports - Managing Intellectual Property, Importance of Branding in High-Tech Markets, Developing a Strong Brand - Ingredient Branding. **(7+ 1)**

3. Pricing decisions High-Tech Markets:

The High-Tech Pricing Environment, 3Cs of pricing cots, competition, customers, consolidating 3Cs into a successful strategy, Customer oriented pricing, Pricing of After-Sales Service - The Technology Paradox- Solutions to the Technology (Pricing) Paradox - From Free to Fee. The Effect of the Internet on Pricing Decisions, Additional Pricing Considerations - Outright Sale of Know-How versus Licensing Agreements - Licensing Restrictions - Pay-Per-Use versus Subscription Pricing - Price Bundling – Leasing.**(5 + 1)**

4. Place decisions in High-Tech Markets:

Channel Considerations in High-Tech Markets –Managing Hybrid channels, Emerging considerations in Distribution Channels, Gray market, Black market, Matching Supply Chain strategy to uncertainty, Management supply chain management technology, outsourcing –Greening of Supply chain, Need for Indirect Channels to Provide Value for Manufacturers - Evolution of High-Tech Channels. **(4 + 1)**

5. Promotion decisions in High-Tech Markets:

Promotion Mix Decisions – Use of Personal Selling, Direct Marketing and other promotion tools; New-Product Pre-announcements - Objectives of Pre-announcements, Advantages and Disadvantages of Pre-announcements, Tactical Considerations in Pre-announcement Decision; Importance and use of Customer Relationship Management (CRM). **(4 + 1)**

Suggested Text Books:

- 1 Marketing of High-Technology Products and Innovations by Jakki Mohr, Sanjit Sengupta, Stanley Slater, 2nd Edition

Suggested Reference Books:

1. Marketing High Technology by William H. Davidow 2.Product Marketing for Technology Companies by Mark Butje

Supplementary Reading Material:

1. Crossing the chasm: Marketing and Selling High Tech Products to Mainstream
2. Customers by Geoffrey Moore
3. Product Strategy for High Technology Companies by Michael E. McGrath.
4. Next Generation Product Development: How to Increase Productivity, Cut Costs, and Reduce Cycle Times by Michael E. McGrath
5. The Innovator's Dilemma by Clayton M. Christensen

Websites:

1. <http://marketinghightech.net/>
2. <https://hbr.org/1999/07/what-high-tech-managers-need-to-know-about-brands>
3. <https://www.brandingstrategyinsider.com/brand-building-in-a-hi-tech-world/#.Xqa7c25Ujpy>
4. <https://quality-one.com/qfd/>
5. <https://www.semanticscholar.org/paper/A-CONTINGENCY-THEORY-APPROACH-TO-MARKET-ORIENTATION-Heiens-Pleshko/510606add0c3c588de0f0c0f9eb5c4f7ac1e5>

**Subject Core (SC) Courses - Semester IV
Specialization: Marketing Management**

Semester IV	SC – MKT - 05	403MKT- Marketing 4.0
3 Credits	LTP:: 2:1:1	Subject Core (SC) Course Marketing Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO403.1	REMEMBERING	DESCRIBE the various concepts associated with Marketing 4.0.
CO403.2	UNDERSTANDING	EXPLAIN the importance of various concepts in Marketing 4.0. like prompted Advocacy ,5A's, Four Major Industry Archetypes, and content marketing leading to Brand Affinity.
CO403.3	APPLYING	APPLY the concepts of digital marketing by Using Digital Anthropology to connected customers , which will drive up the productivity , by Integrating the Best of Online and Offline Channels in the digital world.
CO403.4	ANALYSING	ANALYSE the online and offline interactions between the companies and customers to be the effective marketers.
CO403.5	EVALUATING	EVALUATE how Technology & connectivity has changed human life and business in the context of real-world commodities, products & services.
CO403.6	CREATING	CREATING WOW! Moments with customer engagement by using Marketing 4.0.

1. Introduction to Marketing 4.0:

Power Shifts to the Connected Customers, Shift from Exclusive to Inclusive, social communities, ,Reverse innovation, Frugality change in focus From Vertical to Horizontal, Transition from Individual to Social approach, Online go-to-market option-factor (friends, families, Facebook, Fans, twitter followers), Creating Inclusivity and Sustainability for Society

The Paradoxes of Marketing to Connected Customers

Breaking the Myths of Connectivity -connectivity as a game changer, lowering entry barriers, disruption, collaboration, cocreation, Informed customers vs Distracted customers, brand conversion, Negative Advocacy vs Positive Advocacy, prompted Advocacy

The Influential Digital Subcultures

Youth: Acquiring the Mind Share, Fast changing Pop culture, Youth as a primary market, Early adopters, Women: Growing the Market Share, Women's role in decision making, Researched decision process, Women's role as a gatekeeper, Netizens: Expanding the Heart Share, savvy, smart and High influence of Netizens. **(8+2)**

2. Marketing 4.0 in the Digital Economy:

Moving from Traditional to Digital Marketing, Integrating Traditional and Digital Marketing, technologies that drive digital economy, digitally empowered entrants, combining online and offline interaction, ,Blending style with substance, The New Customer Path

Brand clarification of characters and codes-Brand positioning, consistency in Brand characters, Brand differentiation based on Human-to Human touch, Four Ps to 4Cs, Commercializing 4C's

Understanding How People Buy: From Four A's to Five A's, Aware, Appeal, Ask, Act, and Advocate. Driving from Awareness to Advocacy: The O Zone (O3) **(7+ 2)**

3. Marketing Productivity Metrics:

Introducing PAR and BAR, Decomposing PAR and BAR

Driving Up Productivity, Purchase Action Ratio and Brand Advocacy Ratio

Industry Archetypes and Best Practices

Four Major Industry Archetypes, Four Marketing Best Practices. **(7+2)**

4. Human-Centric Marketing for Brand Attraction:

Understanding Humans Using Digital Anthropology, Human and Machine in new customer experience (CX), Building the Six Attributes of Human-Centric Brands, When Brands Become Humans

Content Marketing for Brand Curiosity

Content Is the New Ad, #Hashtag Is the New Tagline, Step-by-Step Content Marketing, Creating Conversations with Content, Introduction to Contextual Marketing **(6+2)**

5. Omnichannel Marketing for Brand Commitment:

The Rise of Omnichannel Marketing. Step-by-Step Omnichannel Marketing, **Moving from physical to digital channels**, Integrating the Best of Online and Offline Channels

Engagement Marketing for Brand Affinity

Enhancing Digital Experiences with Mobile Apps, Providing Solutions with Social CRM, Driving Desired Behavior with Gamification. Mobile Apps, Social CRM, and Gamification, Augmented Marketing, Using Predictive marketing for Engagement, Epilogue: Getting to WOW! What Is a "WOW"? Enjoy, Experience, Engage. **(7+2)**

Suggested Text Books:

1. Marketing 4.0 by Philip Kotler, Hermawan Kartajaya, and Iwan Setiawan, John Wiley & Sons
2. Managing Content Marketing: -The Real World Guide for creating Passionate subscribers to Your Brand-Jie Pulizzi, , Roibert Rose, CMI Books
3. Engagement Marketing: -How small business wins in a socially connected world, By Gail Goodman, Wiley Publishers
4. Marketing Metrics: -The Manger’s Guide to Measuring Marketing Performance -Neil T Bendle, Paul Farris and Philip Pfeifer, Pearson FT Press. Third edition

Suggested Reference Books:

1. The Art of Digital Marketing: The definitive guide to creating strategic, Targeted and Measurable online campaigns-Ian Dodson
2. Permission Marketing, turning strangers into friends and friends into customers by Seth Godin,
3. Collaboration and Co-creation-New platforms for marketing and innovation-Bhalla, Gurav
4. Customer Relationship Management: -Concepts and technologies-Fancis Butle, Routledge Taylor and Francis Group, London and New York
5. Marketing 5.0 Technology for Humanity, Philip Kotler, Hermawan Kartjaya, and Iwan Setiawan John Wiley & Sons, Inc. Hoboken, New Jersey

Online Journals and Websites:

1. https://www.youtube.com/watch?v=t9o20Tlz_t4, what you need to know from the book Marketing 4.0 by Philip Kotler
2. <https://www.youtube.com/watch?v=gyk83sdL8mw> ,Industry Archetypes and Best Practices(Marketing 4.0)
3. <https://www.youtube.com/watch?v=mMKDzADelb0>, Marketing and Industry 4.0: Digital Infrastructure.
4. <https://www.marketingjournal.org/marketing-4-0-when-online-meets-offline-style-meets-substance-and-machine-to-machine-meets-human-to-human-philip-kotler-hermawan-kartajaya-iwan-setiawan/>
5. <https://www.researchgate.net/publication/261431780> Marketing 4.0 A New Value Added to the Marketing through the Internet of Things
6. <https://minutehack.com/opinions/marketing-4-0-reaching-connected-customers>
7. <https://hbr.org/2015/07/engineering-reverse-innovations>
8. <https://iveybusinessjournal.com/publication/reverse-innovation-and-the-emerging-market-growth-imperative/>

Semester- IV	SC – MKT - 06	404MKT: Marketing Strategy
3 Credits	LTP: 2:1:1	Subject Core (SC) Course Marketing Management

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO404MKT.1	REMEMBERING	DESCRIBE various concepts of marketing strategies.
CO404MKT.2	UNDERSTANDING	EXPLAIN various marketing strategies to handle marketing circumstances
CO404MKT.3	APPLYING	APPLY the concepts of marketing strategy to solve real-life business problems.
CO404MKT.4	ANALYSING	DISCOVER the suitable competitive advantage useful to design market specific and organization specific marketing strategies.
CO404MKT.5	EVALUATING	ESTIMATE the attractiveness of segment to decide targeting strategy and MONITOR marketing performance using marketing matrices.
CO404MKT.6	CREATING	DESIGN marketing strategies to lead the organization towards sustainable growth.

1. Introduction to Marketing Strategy

Overview of marketing strategy levels: Concept, Principles, Strategic Marketing Vs Tactical Marketing, Scope of Strategy & Tactics, Integrating marketing strategy with the firm’s other strategies & resources, Discovering Market Opportunities: Market Opportunity Analysis, Process of Identification, Formulation, Implementation & Control, Marketing Plans, Marketing Audit.

Market Knowledge Systems: Marketing Intelligence, Marketing Databases, Marketing Data Touch Points-Significance & Application

2. Marketing for Customer Advantage & Value Creation

Customer Value Leadership and the business model; Generating and using customer insight to drive strategy, Integrating marketing & sales to manage customers, tools for innovating new values for customers, managing

customers for experience, managing customers for profit.

Strategies for innovating new values for customers: proactive, active, reactive and passive. CLV, Value Life Cycle.

Targeting customers & inbound marketing, Cognitive marketing strategy,

Gaining Market Position: Steal-Share Strategy, Differentiation strategy, Similarity strategy

3. Pricing – The Ultimate Marketing Strategy

Pricing Excellence, Pricing Maturity Model, Transformational Model, Centralized Versus Decentralized Pricing Options for Pricing Organizational Designs, Pricing Capabilities: Pricing Dimensions, Pricing Myths at the Organizational Level, Emergence of Pricing Technology, competing against low cost rivals, Pricing during recession

4. Vibrant Scope of Marketing Strategy

Account Based Marketing, Data-Driven Marketing Strategy, Service Marketing Strategy, Digital Marketing Strategies, Relationship Marketing Strategies, Experiential Marketing, Inbound Marketing Strategies – Content Marketing, Multilevel Marketing, Promotion Strategy Marketing, and Offline Marketing, strategic marketing in the new normal, Market-Innovation Strategy: Pioneering New Markets (types), Defending Market Position: not taking action, repositioning the existing offerings

5. Executing Marketing Plan

Formulation, reformulation of marketing strategies, the control process. Preparing marketing plan for Ed-tech, Automobile, Banking & Insurance, FMCG, Food & Beverage. Presenting Marketing Plan, Marketing decision making with reasons, Marketing Strategies to compete globally.

Suggested Text Books

1. Strategic Marketing by A. Nag, Macmillan Publication
2. The Pricing Journey: The Organizational Transformation Toward Pricing Excellence, Stephan M. Liozu, 2015
3. Marketing Strategy by Walker, Mullins, Boyd & Larreche, McGraw-Hill/Irwin
4. Marketing Strategy and Competitive Positioning by Graham Hooley, Brigitte Nicoulaud, Nigel F. Piercy, Pearson Education, 5th Edition.
5. Strategic Marketing Management-Richard Wilson & Colin Gilligan, Routledge
6. Strategic Marketing: An Introduction by Tony Proctor

Suggested Reference Books:

1. Strategic Marketing David. W. Cravens, Nigel. F. Piercy, Tata MacGraw Hill Publication
2. Marketing Strategy: A Decision-Focused Approach-John W. Mullins, By Felix Mavondo, John Gountas, Orville C. Walker; McGraw-Hill Education; 2nd Revised Edition
3. Strategic Marketing Text & Cases-S. Shajahan, Viva Books
4. Strategic Management & Marketing by Narendra Singh, Himalaya Publication
5. Strategic Marketing Management- Text & Cases by UC Mathur, Macmillan

Supplementary Reading Material:

1. Marketing Warfare: 20th Anniversary Edition By Al Ries, Jack Trout, (McGraw-Hill Education; 2nd edition)
2. Marketing Strategy a Complete Guide-2019 Edition by Gerardus Blokdyk, 5 star cooks
3. Blue Ocean strategy-W Chan Kim and Renee A Mauborgne

Websites:

<https://www.educba.com/pricing-strategies-in-marketing/>

Business Strategy-Business Standards Brand Equity-Economic Times

Audio Visuals link:

1. <https://www.youtube.com/watch?v=Fy1pcW9mvNo>
2. <https://www.youtube.com/watch?v=RCHofmkLgzs>
3. https://www.youtube.com/watch?v=jF_MDRMFcPs
4. <https://www.youtube.com/watch?v=cZom3AAOsgs>

**Subject Elective (SE) Courses - Semester IV
Specialization: Marketing Management**

Semester IV	SE – IL – MKT - 13	409MKT: Customer Relationship Management
2 Credits	LTP: 1:1:1	Subject Elective (SE) Course – Marketing Management

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 409MKT.1	REMEMBERING	Define concepts and components of B2B, B2C CRM, customer acquisition & retention and CRM mechanics
CO 409MKT.2	UNDERSTANDING	EXPLAIN key concepts and theories associated with CRM.
CO 409MKT.3	APPLYING	APPLY and ILLUSTRATE principles, theories and models of CRM in B2B and B2C markets.
CO 409MKT.4	ANALYZING	CLASSIFY Customer acquisition and retention strategies and ANALYZE Customer database in CRM.
CO 409MKT.5	EVALUATING	EVALUATE suitability and effectiveness of CRM strategies in marketing situations of products, services & e-products/ services across various industries.
CO 409MKT.6	CREATING	DEVELOP CRM strategies/plans for various B2B and B2C markets.

1. Introduction of CRM and its Fundamentals:

1.1 Concept and Context of Relationship Management: Internal and External relationship management, Need and Importance of relation with customers and other stakeholders, Approach towards Marketing: A Paradigm Shift- Transition from Product focus to Customer focus, Transactional Vs Relationship Marketing, Linkage between customer satisfaction- Customer Loyalty and business performance, Relationship Management Theories, Building Brands through Relationship Marketing, Service Level Agreements.

1.2 Defining CRM, Levels of CRM, CRM as a strategic marketing tool, CRM significance to the stakeholders, Strategic CRM, Operational CRM, Analytical CRM, Collaborative CRM, and Models of CRM. (6+1)

2. Customer Acquisition and Retention:

2.1 Acquisition of new customer, understanding customer value, sources of customer value, Values from products, services, people, physical evidence, customer communication, Channels etc., customer value estimates, KPI of a customer acquisition program, Customer Touch Points, Customer Equity.

2.2 Concept of Customer retention. Role of CRM in Customer in retention, Economics of customer retention, Managing customer retention or value retention? Strategies of customer retention, KPI of customer retention program, terminating customer relationship and its strategies, Concept and Significance of Customer Loyalty, Customer Life Cycle and Customer Life Time Value (CLTV), Recency, Frequency and Monetary Value (RFM) Analysis, Customer Loyalty Ladder, Impact Of Customer Defections, Types of Defectors, Strategies to reduce customer defections, CRM Framework- Switching. (6+1)

3. CRM Mechanics:

3.1 Maintaining customer database, Desirable database attributes, Data marts, Data warehousing, Data integration, Data mining and Privacy issues.

3.2 Customer Portfolio Management-Concept and basic disciplines, Market segmentation-sales forecasting and CPM, CPM in B2B, Seven core customers' management strategies.

3.3 CRM and Customer Experience Management: Concept of Customer experience, experiential marketing strategies and Tactics, Customer experience and Role of CRM. (4+1)

4. Overview of CRM in B2C and B2B Market:

4.1 Service business characteristics and classification, Service recovery, CRM in Banking Industry, Hospitality Industry, Aviation Industry, Telecom and Retail industry.

4.2 CRM in Consumer durable Industry and its application. - White Goods, common CRM Tools in Practice and improvisation for Quality Service Assurance.

4.3 Importance of CRM in B2B markets, digital products & services, Key Account Management, Supply channel Management, Internal CRM and Employee relationship management, (4+1)

5. Implementation of CRM and Future Trends in CRM:

5.1 CRM Implementation Process, Evaluation of CRM process, Challenges in CRM implementation, Customer Care Management through Information Technology Tools – Electronic Point of Sales (ePOS) , Sales Force Automation

5.2 Emerging trends in CRM, Social CRM, e-CRM, Challenges involved in formulating and implementing e-CRM strategies, Multichannel CRM, Role of Social media in CRM, Six E's of e-CRM,, Mobile CRM, Artificial Intelligence (AI) with CRM System. (5+1)

Suggested Text Books:

1. Customer Relationship Management – Concepts and Technologies by Francis Buttle, 2nd Edition, Butterworth
2. Heinemann, Elsevier
3. Relationship Management – Text and Cases, S. Shajahan, TMGH.
4. J N Sheth, AtulParvatiyar, G. Shainesh, 2001, Customer Relationship Management, Tata McGraw Hill
5. Customer Relationship Management: Concepts and Cases, Second Edition, Alok Kumar Rai PHI learning Pvt Ltd, New Delhi

Suggested Reference Books:

1. Handbook of Relationship Marketing by JagdishSheth and AtulParvatiyar, Response Books, Sage Publications.
2. Zikmund, McLEOD, Gilbert, Customer Relationship Management
3. Customer Relationship Management- Concepts and Technology, Second Edition, Francis Buttle, Elsevier, Sabre foundation
4. Brown, Stanley A 2001, Customer Relationship Management, John Wiley& Sons
5. Anderson, Kristin , 2002, Customer Relationship Management, Tata McGraw-Hill

Suggested URL:

1. https://swayam.gov.in/nd2_imb20_mg09/

Semester IV	SE-IL-MKT-14	410MKT: Rural and Agriculture Marketing
2 Credits	LTP: 1:2:0	Subject Elective (SE) Course – Marketing Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO410MKT.1	REMEMBERING	DEFINE various concepts related to Rural and Agricultural Marketing
CO410MKT.2	UNDERSTANDING	UNDERSTAND the rural consumer buying Behavior, Rural Marketing Mix, Industrial and Agriculture Market, Difference between Rural and Urban market on different terms and Environment,
CO410MKT.3	APPLYING	APPLY Rural Marketing research for Segmentation, Positioning with data collection methods for current rural market in India.
CO410MKT.4	ANALYSING	ILLUSTRATE the Rural product, Pricing and Distribution Strategies with modern approach and challenges faced in rural Market and emerging Models in Rural Market.
CO410MKT.5	EVALUATING	ASSESS the use of ICT in Agriculture Marketing with use of various models in domestic and international Market.
CO410MKT.6	CREATING	FORMULATE a model for Marketing of Agricultural products by using marketing mix tools.

1. Rural Marketing:

Introduction, Defining rural markets & rural marketing, rural vs. urban markets, Rural Marketing Environment – PEST analysis, Rural Economic Structure, Rural Occupation Pattern, Incomes & Consumption, Rural market Size, Rural Infrastructure (4+2)

2. Rural Consumer Behaviour& Marketing Research:

Characteristics of Rural Consumers, Role of Opinion Leaders, Diffusion of Innovation in Rural Markets, Sources & Type of Secondary Data on Rural markets, Collecting Primary Data in Rural Setting, Segmentation, Targeting & Positioning: Bases of Segmenting Rural Markets, Target Marketing, Coverage of Markets, Positioning in Rural Markets, Rural consumer Buying Process (6+2)

3. Rural Product, Pricing and Distribution:

Rural Product Categories, Branding in Rural Markets, Problem of Fake Brands, **Pricing Strategy** – special considerations in rural markets, Credit in rural markets – need, sources & innovative credit delivery systems ,Modern supply chain management approach, Challenges of distribution in Rural markets, Rural Retail System – last mile problem, public distribution system, cooperatives, **Emerging Models in Rural Markets: Rythu Bazars (Farmers' Markets), Project Shakti, Apni Mandi** (6+2)

4. Introduction to Agricultural Marketing:

Definition of Market and agricultural marketing, Understanding Agricultural Markets, Nature & scope, Objectives of Agriculture Marketing, Organizations and functions of agricultural marketing in India. Difference between consumer, industrial and agricultural markets (4+2)

5. ICT in Agricultural Marketing:

Information and Communication Technology (ICT) tools used in Agricultural Marketing ,Market research-Market information service - electronic auctions (e-bay), AGMARKNET, e-Chaupals, Agrimarket, e-NAM, m-krishi, and Domestic and Export market Intelligence Cell (DEMIC) – Market extension, ICT initiatives of NGOs. Role of social media in agricultural marketing. Successful case studies.(5+2)

Suggested Text Books:

7. The Rural Marketing Book by PradeepKashyap& Siddhartha Raut
8. A New Approach to Rural Marketing by KaushikSircar
9. Marketing of Agricultural Products by Richard Louis Kohls, Joseph N. Uhl, Person Publication, 9thEdition.
10. Agriculture Marketing in India by S.S.Acharya& N.L. Agarwal , Oxford & IBH Publishing Co. Pvt. Ltd New Delhi, 4thEdition
11. Rural Agriculture & Marketing by S.B. Verma, S.K. Jiloka&Mandal , Deep & Deep Publication Pvt. Ltd.

Suggested Reference Books

4. Rural Marketing – Concepts & Practices by BalramDogra, KarminderGhuman
5. New Perspective in Rural & Agricultural Marketing by Ramkishen Y., Jaico Publishing House , 2ndEdition
6. Introduction to Agribusiness Marketing by George Seperich, Michael Woolverton, James Beierlein, Pearson Education. New Perspective in Rural & Agricultural Marketing by Ramkishen Y., Jaico Publishing House, 2ndEdition
7. Introduction to Agribusiness Marketing by George Seperich, Michael Woolverton, James Beierlein, Pearson Education.

Semester IV	SE – IL – MKT - 15	411 MKT: Tourism & Hospitality Marketing
2 Credits	LTP: 1:1:1	Subject Elective (SE) Course – Marketing Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 411 MKT.1	REMEMBERING	DEFINE core concepts, components of Tourism and Hospitality industry like marketing mix, STP, CRM & legal aspects.
CO411 MKT.2	UNDERSTANDING	DISCUSS and EXPLAIN aspects of Tourism and Hospitality Marketing and EXEMPLIFY the various related terms.
CO411 MKT.3	APPLYING	DEMONSTRATE the concepts of marketing mix, Segmentation, targeting & positioning in the contemporary real world scenarios of tourism & hospitality industry
CO411 MKT.4	ANALYSING	EXAMINE & LIST the critical tourism & hospitality marketing issues concerning segmenting, targeting, positioning, customer relationship management, marketing mix, and changing trends.
CO411 MKT.5	EVALUATING	Evaluate the Marketing Mix, CRM & STP strategies of players of the hospitality and tourism industry.
CO411 MKT.6	CREATING	FORMULATE Marketing Mix, CRM & STP strategies for hospitality and tourism industry players / companies andPROPOSE a blend of legal and customer based strategies to meet customer relationship marketing and face the challenges.

1. **Introduction to Tourism and Hospitality Industry: Introduction to Tourism Industry:** Concept, definition, types and characteristics, Types of Tourists – Components of Tourism Infrastructure – Elements and Characteristics of Tourism Products- Scope of Tourism – Motivation for Tourism- Employment Opportunities in Tourism Introduction to Hospitality Industry: Concept– Origin and Growth – definition, types and characteristics, Types of hospitality products – Elements and Characteristics of hospitality Products, Components of Hospitality Infrastructure – Industries related to Hospitality, – Employment Opportunities in Hospitality Relation of hospitality industry with Tourism: Factors Affecting Hospitality and Tourism Industry, Customer Based Metrics, Product-Market Based Metrics, Marketing Mix Metrics **(4+1)**
2. **Marketing Mix: Tourism:** Types of tourism- Entertainment, Medical-Eco-Pilgrimage- Agri-Cultural-Sports-Leisure-Theme based, Destination Tourism. Domestic & International Tourism, Packages and Travel bookings, Tour Packaging & Costing - Importance of Tour Packaging – Classifications of Tour Packages -Components of Package Tours - Components of tour cost, Subsidies, Bookings, Citizen wise allowances, Tour agents and operators, cruise line traveling, Airline Tickets, Promotion through celebrity endorsements, events, Specialty features, Restaurants- types, Tariffs and Discounts, Mode of booking- Personal, Telephonic, Online App based, Promoting season wise, festival wise, feature and facility wise, Off season promotion. Role of integrated marketing communication in hospitality and tourism: analyzing the effectiveness of different communication platforms, and examining the fast-changing landscape in digital marketing. Service Characteristics of Hospitality and Tourism Marketing: The service culture, Extended 3Ps of Marketing for services, Characteristics of Service Marketing 4 Is – Intangibility,

Inseparability, Inconsistency, Inventory **(5+1)**

3. **Segmentation, Targeting and Positioning of Tourism and Hospitality Industry:** Segmentation: Types of tourists- Personal, Business, Professional, differently-abled tourist- Targeting and Positioning: Understanding the marketplace and customer needs, wants and demands; Tangible Products (pick, drop facility, tour guide) Hospitality segmentation: Major Departments of a Hotel – lodging, F&B, recreation, event planning, theme parks, transportation, and additional facilities like internet, gym- Targeting and Positioning: Locations, Sections and Layout– Room/ table booking availability- Room tariffs and calculation of rates - reservation – registration – Guest services – Check out and settlement – Front office experiences, Room service differentiation, – safety and security. Evaluating and publicizing Hotel performance – Evaluation of hotels by guests - Direct marketing techniques through various apps, Understanding organizational customers and success factors of marketing Meeting, Incentive, Conference, and Exhibition (MICE) business. **(6+1)**
4. **Customer Relationship Management CRM in Tourism and Hospitality Marketing:** Benchmarking – Outsourcing - Value addition- Service Quality Control Tourism Destination Planning: Environmental Analysis- Resource Analysis - Cultural Analysis Understanding brand development: Referrals- Managing service Differentiation, Briefing, Banquets, Conference & Convention Management -Planning for Sustainable Tourism, Formulating Policy to Deal with Crises , Contingency Planning, Reviewing the relationship between service quality and human resources, Role of E- commerce in Hospitality sector - Best practices for building customer loyalty and creating a strong brand **(5+1)**
5. **Legal Aspects and Future Trends in Hospitality and Tourism: Legal Aspects:** Recognition of Travel Agency, Tour Operator and Travel Guide License & Permits and Certifications required for Hotels, Awareness about existence of National & International Organization like IATA, PATA, ICAO, WTO, UFTAA, FHRAI, Government regulations and role of various certifications in Food Quality and Food Safety support- Travel and Health Insurance, Forex, Cargo & MICE – Documentation. Prospects, Changing trends, issue and challenges and Future Growth in Tourism: Space tourism, Adventure Tourism, Eco Tourism- Ecotel and Eco resorts, Forces Impacting the future of Tourism –Pollution, Economic, Branding, Terrorism, Conflicts between countries, Technology; Tourist characteristics – Knowledge-Based Society and workforce, Changing Nature of Tourism Products. **(5+1)**

Suggested Text Books:

1. Tourism Development: Principles and Practices: A.K. Bhatia
2. Hotel Facility Planning: Bansal Tarun
3. Hotel Housekeeping: Operations and Management: G. Raghubalan, Smritee Raghu balan
4. Hotel Front Office: Operations: J R Tewari
5. Tourism Operations and Management: Roday Sunetra; Vandana Joshi; BiwalArchana
6. Marketing for Hospitality & Tourism - Philip Kotler, Bowen & Makens Prentice Hall Inc.
7. Marketing Management for the Hospitality Industry: A Strategic Approach: Allen Z. Reich Wiley,
8. Strategic Management for Hospitality and Tourism (1st ed.): Okumus, F., Altinay L., & Chathoth P. Butterworth-Heinemann.
9. Tourism Marketing: S.M. Jha, Himalaya Publishing House
10. Tourism Management: Anil Sharma, Essential Books, New Delhi
11. Tourism and Travel Management: Biswanath Ghosh, Vikas Publishing House Pvt. Ltd. New Delhi
12. Basic of Tourism Management: Suddhendu Mishra, Excel Books, New Delhi

Suggested Reference Books

1. Hospitality Strategic Management: Concepts and Cases: Cathy A. Enz, Wiley.
2. Strategic Management for Travel and Tourism: David F. J. Campbell, George Stonehouse, and Nigel Evans
3. Cross-Cultural Management Essential Concepts Fourth Edition: David C. Thomas, Mark F. Peterson
4. Promoting Tourism and Hospitality: Trends and Opportunities: Arvind K. Singh & R. A. Sharma
5. Tourism Management: Stephen J Page, Butterworth-Hienemann Oxford
6. Tourism Marketing: Tapan K Panda and Sitikantha Mishra, The ICAI University Press, Hyderabad
7. Marketing Whitebook of current year

Swayam Courses:

1. TS-1: Foundation Course in Tourism By Dr. Sonia Sharma & Dr. Tangjakhombi Akoijam, Indira Gandhi National Open University
2. TS-2: Tourism Development Products, Operations and Case Studies

Websites:

1. www.tourism.gov.in
2. www.agritourism.in
3. www.agrotourismworld.com

Semester IV	SE -IL – MKT - 16	412 MKT – Retail Marketing
2 Credits	LTP - 1:1:1	Subject Elective (SE) Course – Marketing Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 412 MKT.1	REMEMBERING	DEFINE and RECALL concepts associated with retail marketing
CO412 MKT.2	UNDERSTANDING	UNDERSTAND the various retail Formats, merchandise management and recent trends
CO412 MKT.3	APPLYING	APPLY the best practices for retail store management along with USE of social media in retailing
CO412 MKT.4	ANALYSING	ANALYSE and COMPARE the contemporary issues in Retailing and E-tailing
CO412 MKT.5	EVALUATING	EVALUATE the store location based on the determinants and effectiveness of Retail marketing mix
CO412 MKT.6	CREATING	DESIGN effective CRM programs suitable for each retail format

- 1 Introduction to Retailing:** Meaning, Nature and Scope of Retailing, Evolution of Retailing, Drivers of Retail change in India, Opportunities and Challenges in Retailing in India, Importance and Functions of Retailing, Product Retailing vs. Service Retailing, Retail Management Decision Process, Retail Marketing Environment, FDI in Retail, Dealing with ethical issues, Social Responsibility, Environmental Orientation, Waste Reduction at Retail Stores. **(4+1)**
- 2 Retail Market Segmentation:** Importance of Market Segmentation in Retailing, Targeted Marketing Efforts, Criteria for Effective Segmentation, Dimensions and Differentiation Strategies, Limitations of Market Segmentation. Retail Planning Process, Retail Models, Retail “EST” model. Formats of Retailing: Super markets, Hyper Markets, Departmental stores, Convenience store. Retail Institutions categorized by ownership: Independent, franchising, leased, vertical marketing system; Non- store Retailing.
Store Location -Introduction, Types of Retail Stores Location, Factors Affecting Retail Location Decisions, Location & Site Evaluation, Site Selection, Store design and Retailing mix, store layout, circulation plan, Floor Space management Retail Merchandising, Understanding Merchandising Management, Activities of a Merchandiser. Planogram, Visual Merchandising **(7+1)**
- 3 Retail Store Management Administration and Planning:** Introduction - Retail Store Management, Supply Chain Management, Human Resource Management, Information System Management, Category management, Assortment planning, Analyzing merchandise performance, Gross Margin Return on Inventory Management (GMROI), Inventory Turnover Ratio, Sales Forecasting. Developing and sourcing private label merchandise, Negotiating with vendors, Mall Management. **(4+1)**
- 4 Retail Communication Mix:** Introduction, Role of Communication in Retailing, Elements and Marketing Communication Tools, Retail Marketing Communication Process, Retail Marketing Communication Plan, Implementing and Evaluating the Retail Communication Programs.
Retail Pricing- Introduction, Factors Influencing Retail Pricing, Setting the Retail Price, Pricing Objectives, Pricing strategies, Pricing Methods, Price Adjustment and Discrimination, Legal and ethical pricing issues **(5+1)**
- 5 Customer Relationship Management and Recent Trends in Retailing:** Introduction, Benefits of Relationship Marketing, Principles of CRM, Customer Relationship Management Strategies, Components of CRM, Customer Service in Retailing, CRM and Loyalty Program,
Orientation of Technologies in Retailing: Data Warehousing and Data Mining, Use of Barcodes, RFID tags and electronic shelf tagging, E-Tailing, Future Trends in Retailing with respect to use of technology in retail marketing, Role of Social Media in Retailing **(5+1)**

Suggested Text Books

1. Retailing Management by Swapna Pradhan, TMGH Publication
2. Retail Marketing Management by David Gilbert, Pearson Publication
3. Retail Business Management by R. Perumalsamy, Anmol Publications
4. Retailing Management by Arif Sheikh, Himalaya Publication
5. Retail Management by Gibson, Pearson Publication

Suggested Reference Books

1. Retail Marketing Management by Helen Goworek & Peter McGoldrick Pearson Publication
2. Information Technology for retailing by Khurana, McGraw Hill Publication
3. Retail Management by Michael Levy and Barton. A Weitz, McGraw Hill Publication
4. Retail Management: A Strategic Approach by Barry Berman and Joel Evans, Prentice Hall College publication

MOOC Courses:

1. Introduction to Retail Management – IIMB (Swayam)
2. Retail Management – CEC (Swayam)

Website

1. <http://www.indiaretailing.com>

Semester IV	SE-IL-MKT-17	413 MKT: Retailing Analytics
2 Credits	LTP:1:1:1	Subject Elective (SE) Course – Marketing Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 413 MKT.1	REMEMBERING	ENUMERATE the characteristics, opportunities and challenges of New Age Retailing, Digital Consumers Dynamics, List the data required for retail analytics.
CO 413 MKT.2	UNDERSTANDING	UNDERSTAND Consumer Buying Behavior and Trends in new age retailing.
CO 413 MKT.3	APPLYING	USE various kinds of data and tools for performing Retailing Analytics.
CO 413 MKT.4	ANALYSING	ILLUSTRATE the use of various tools and frameworks for predictive retail Analytics.
CO 413 MKT.5	EVALUATING	DERIVE a variety of metrics and quantify key outcomes in multiple areas of Retail.
CO 413 MKT.6	CREATING	BUILD value for Retail and Marketing by deriving Marketing ROI metrics.

1. **Introduction to retailing-** Types of Retailers, store-non store retailers, organized v/s non-organized retailers. The new retail environment and Marketing decisions, Retailing in the Digital Era: New Age Retailing, Retailers goodwill, Digital Consumers Characteristics— Interconnected, Involved, Co-creation, Collaboration, Customer Data — Big Data. Data Characteristics-Variety, Volume, Velocity, Reliability **(5+1)**
2. **Retailing Analytics and Data Analytics:** Customer Insights, Critical issues in Modern day Retail, The Digital organization, Retail analytics for decision making, Informed and Risk Aware Decisions, Benefits of Retail Analytics—Informed Decisions, Risk mitigation, Gaining visibility, Retail Analytics for Strategic—Tactical and Operational decisions. Data Terms, Market Basket, Data Storage, Data without Use Is Overhead, Case Studies and Practical Examples of Data-Related Retail Projects, Trade Area Modeling, Real Estate Site Selection Modeling, Competitor Threat Analytics, Merchandise Mix Modeling: Combining Multiple Data Sources, Celebrity Marketing: Tracking Effectiveness, Affinity Merchandising: Merchandise Cross- Sell Case Study **(5+1)**
3. **Marketing in a Consumer-Driven Era:** Understanding Consumer Buying Behavior and Trends , Leveraging customer data, Putting information in context, Clicking with consumer communities, Keeping content in mind, From personalization to commerce, Key Questions: What they are buying, Who they are, How they are buying, Where else they are buying?**(4+1)**
4. **Data sources and Data Processing:** Customer, Retailer, Supplier, Market, Web, Mobile, Social, Call Centers, Data Mining and Data Storage, Structured V/s unstructured data, The unstructured data challenge, Recognizing the untapped analytics opportunity, Customer-Driven Decision Making, Content Analytics in Action, Understanding Affinities between Products and Customers, Advanced affinity analysis ,Market basket analysis, Understanding customer preferences, Anticipating the customer’s next move, Improving Retail Promotions.**(5+1)**
5. **Aspects of Retailing Analytics:** Marketing Analytics: Marketing Mix ROI, Promotions, Promotional maturity curves, pricing, pricing per segment, Margin , Profitability, Personalization, Campaigns, Marketing Return Curves, Scenario Analysis, P&L analyses, Managing Incentive Compensation. Merchandising Analytics: Assortment planning, Geospatial Analytics, Product placement, Space Optimization, Product adjacency, aligning store-level assortment with demand, Category Intelligence, Developing dynamic retail assortments, Prioritization of Product categories, Store operations analytics : Using Analytics to Optimize Staffing Plans, Drilling into HR analytics, Customer Traffic, Store Performance Dashboards, Local Market Analytics, Online Offline Analytics, Sales Trends, Brand Performance, Account Performance Forecasts. Supply Chain Analytics: Creating a Demand-Driven Supply Chain, Gaining Visibility across the Supply Chain, Resolving Operations Problems Preventatively, Inventory, Supplier performance, Demand forecasting, Vendor Intelligence, Vendor Rankings, Fulfillment Intelligence, Inventory Diagnostics, Shrinkage, Optimization opportunities.**(6+1)**

Suggested Text Books:

1. Retail Analytics — The Secret Weapon, Emmett Cox

2. Business Analytics for Managers Wolfgang Jank Springer Science+Business Media, LLC 2011
3. Business Analytics in Retail For Dummies,® 2nd IBM Limited Edition by Jennifer Le Claire, Danielle Dahlstrom, and Vivian Braun ,John Wiley & Sons, Inc.
4. The Predictive Retailer, ANDREW PEARSON, Intelligencia Limited
5. Behavior Analytics in Retail, Ronny Max
6. The Little Book on Big Data: Understand Retail Analytics Through Use Cases and Optimize Your Business, Mahogany Beckford
7. TheNewScienceofRetailing:HowAnalyticsareTransformingtheSupplyChainandImprovingPerformance, Fisher and Raman

Suggested Reference Books:

1. Business Analytics Principles, Concepts, and Applications Marc J. Schniederjans, DaraG. Schniederjans, Christopher M. Starkey, Pearson
2. Retail Survival of the Fittest 7 Ways to Future-Proof Your Retail Store. Francesca Nicasio
3. Enterprise Management with SAP SEM™/ Business Analytics by Marco Meier, Werner Sinzig, and Peter Mertens Second Edition Nuremberg and Walldorf, November 2002
4. Data Analysis and Decision Making S. Christian Albright. Wayne L. Winston 5thEdition Cengage Learning

MOOCS Courses:

- NPTEL
 - Introduction to Data Analytics
 - Supply Chain Analytics

- Swayam
 - Big Data Analytics In Retail Industry

- Edx
 - Demand and Supply Analytics

- Udacityn
 - Business Analytics
 - Predictive Analytics for Business

- Udemy
 - Marketing Analytics for Retail
 - Retail for Business Analysts

Semester IV	SE – IL – MKT - 18	414 MKT - Marketing to Emerging Markets & Bottom of the Pyramid
2 Credits	LTP: 1:1:0	Subject Elective (SE) Course – Marketing Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO414MKT.1	REMEMBERING	RECALL Concepts, characteristics, strategies, size and composition of emerging Markets and BOP markets.
CO414MKT.2	UNDERSTANDING	SUMMERISE challenges and opportunities of BOP & Emerging markets and effect of different business environments on BOP & Emerging markets.
CO414MKT.3	APPLYING	IDENTIFY Marketing Implications in terms of strategy, policy & practice of marketing for BOP and Emerging markets.
CO414MKT.4	ANALYSING	COMPARE BRICKS, Next 11 and countries in emerging markets, developed markets and BOP markets.
CO414MKT.5	EVALUATING	ASSESS Demographic & economic scenario and Comparative Advantage of emerging market countries for a given scenario.
CO414MKT.6	CREATING	Develop marketing strategies for BOP and emerging market in context of real world marketing offerings.

1. Overview of Emerging Markets:

Overview of Emerging Markets: Countries constituting emerging markets. Countries constituting BRICS & Next 11, Growing economic power of emerging markets, Demographic & economic scenario of emerging market countries. Emerging market size for different business sectors. (5+1)

2. Emerging Markets - Perspectives & Practices:

2.1 Characteristics of Emerging Markets: Emerging markets versus developed markets - market heterogeneity, sociopolitical governance, chronic shortage of resources, unbranded competition, and inadequate infrastructure. 2.2 Comparative Advantage of Emerging Markets: Policy based advantage, raw material based advantage, NGO based advantage, Marketing Implications in terms of strategy, policy & practice of marketing, Marketing Mix Implications.(7+2)

3. Bottom of the Pyramid Markets:

3.1 Difference between Emerging Markets & BOP Markets, Definition, size & composition of BOP markets all over the world.

3.2 Characteristics of BOP markets, need for segmenting BOP markets. (5+1)

Marketing Strategies for BOP Markets:

4. Marketing Strategies for BOP Markets:

4.1 Four elements of BOP strategy - creating buying power, shaping aspirations, improving access, and tailoring local solutions.

4.2 C K Prahalad's 12 principles, BOP Protocol. (5+1)

5. BOP Markets – The road ahead:

Challenges and Opportunities in BOP market. Effect of MACRO Environmental factors on BOP markets.

Case lets based on Marketing to BOP markets. Criticism of Marketing to BOP & Alternate Perspectives. (3+1)

Suggested Text Books:

1. The Fortune at the Bottom of the Pyramid, Prahalad, C.K., Pearson –Singapore.
2. Doing Business in Emerging Markets: Entry and Negotiation Strategies By S. TAMER AUTOR CAVUSGIL, S. Tamer Cavusgil, Pervez N. Ghauri, Milind R. Agarwal, Sage Publication.

Suggested Reference Books:

1. We are like that only, Bijapurkar, R. (2007), New Delhi: Penguin Portfolio.

Supplementary Reading Material:

1. Agnihotri, A. (2013) "Doing good and doing business at the bottom of the pyramid", Business Horizons, 56(5), 591-599.
2. Bang V.V. and Joshi S. L. (2008), "Conceptualization of Market Expansion Strategies in Developing Economies", Academy of Marketing Science Review, 4, [Online] Available: <http://www.amsreview.org/articles/bang04-2008.pdf>
3. Beshouri, C.P. (2006), "A Grassroots Approach to Emerging-Market Consumers." The McKinsey Quarterly, (March), pp.61-71
4. Hammond, A., W. J. Kramer, R. S. Katz, J. T. Tran, and C. Walker. (2007), The Next 4 Billion: Market size and Business

- strategy at the Base of the Pyramid, World Resources Institute (WRI) and International Finance Corporation (IFC) [Online] Available: <http://www.wri.org/publication/the-next-4-billion>
5. Dawar, N. and A. Chattopadhyay (2000), "Rethinking Marketing Programs for Emerging Markets", William Davidson Institute, working paper no. 320
 6. Holtbrügge, D. and Baron, A. (2013) "Market Entry Strategies in Emerging Markets: An Institutional Study in the BRIC Countries", *Thunderbird International Business Review*, 55(3), 237-252.
 7. Karamchandani, A., M. Kubzansky, and P. Frandano. (2009), *Emerging Markets, Emerging Models: Market-Based Solutions To The Challenges Of Global Poverty* Monitor group, (March).
 8. Karnani, A. (2007), "The Mirage of Marketing to the Bottom of the Pyramid: How the Private Sector Can Help Alleviate Poverty", *California Management Review*, 49(4), (Summer), pp.90-111.
 9. London, T. and S.L. Hart (2006), "Reinventing strategies for emerging markets: beyond the transnational model", *Journal of International Business studies*, (August), pp 1-21. Online available: <http://e4sw.org/papers/JIBS.pdf>
 10. Prahalad, C.K., and A. Hammond. (2002), "Serving the World's Poor, Profitably", *Harvard Business Review*, 80(September), pp. 48-57.
 11. Prahalad, C. K. and S. L. Hart. (2002), "The Fortune at the Bottom of the Pyramid", *Strategy + Business*, 26, pp.54- 67.
 12. Preston, K, A. Libow, A. Bruno, C.Meade, and R. Wells. (2007), *Opportunities for the Majority Index: Analysis of Corporate Performance in Latin America and the Caribbean*, The Inter-American Development Bank, 21st December. [Online] Available:http://www.iadb.org/am/2008/docs/OM_Index_Final_Report_v2.pdf.
 13. Sheth, J. N. (2011), "Impact of Emerging Markets on Marketing: Rethinking Existing Perspectives and Practices", *Journal of Marketing*, Vol. 75 (July), 166 –182.
 14. Simanis, E. and S. Hart With J. DeKoszmovszky, P. Donohue, D. Duke, G. Enk, M. Gordon, and T. Thieme. (2008), *The Base of the Pyramid Protocol: Toward Next Generation BoP Strategy*, Center for Sustainable Global Enterprise, Johnson School of Management, Cornell University, 2nd Ed.[Online] Available: <http://www.wdi.umich.edu/files/BoPProtocol2ndEdition2008.pdf>.
 15. United Nations Development Programme (UNDP). (2008), "Creating Value For All: Strategies For Doing Business With Poor", *The Growing Inclusive Markets Initiative*, (July). [Online] Available: <http://www.undp.org/gimlaunch/download.shtml>
 16. Wilson, D. and R. Purushothaman. (2003) "Dreaming With BRICS: Path to 2050." Goldman Sachs, *Global Economics Paper No.99*, 1st October.
 17. World Business Council for Sustainable Development (WBCSD). (2004), *Doing business with the poor – a field guide*. (March). [Online] Available: <http://www.wbcsd.org/DocRoot/uCxCgEiOhrCEXcsN5slo/sl-field-guide-reprint.pdf>

Websites:

1. <http://www.wri.org/>

Subject Core (SC) Courses - Semester III
Specialization: Financial Management

Semester III		304 FIN– Advanced Financial Management
3 Credits	LTP: 2:1:1	Subject Core - SC - FIN - 03

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 304.1	REMEMBERING	DESCRIBE the basic concepts in financing, investing and profit distribution in a firm
CO 304.2	UNDERSTANDING	EXPLAIN theoretical concepts related to raising and use of funds and value of firm
CO 304 .3	APPLYING	CALCULATE values for making capital structure, investment, liquidity and dividend decisions in the financial management of a firm
CO 304.4	ANALYSING	ANALYZE the Leverage and PBIT EPS Analysis associate with Financial Data in the corporate
CO 304.5	EVALUATING	Evaluate the key strategic financial issues that must be considered in an acquisition or merger
CO304.6	CREATING	DESIGN an appropriate financial strategy using any one or multiple concepts/ techniques learned in this course.

1. **Corporate Restructuring & Corporate valuation:** Background of restructuring and reorganization; Concept of Financial Distress; Financial Statements including Funds Flow and Cash Flow Statements; Importance of Cash Flows; Economic Value Added (EVA): Meaning, Components, Advantages & Drawbacks, Calculating EVA (6+2)

2. **Capital Structure and Firm Value:** Assumptions and Definitions; Net Income Approach; Net Operating Income Approach; Traditional Position; Modigliani and Miller Position Taxation and Capital Structure; Tradeoff; Signaling Theory; PBIT - EPS Analysis; ROI - ROE Analysis; Leverage Ratios; Guidelines for Capital Structure Planning (7+2)

3. **Mergers and Acquisition:** Types and Reasons for Mergers and Acquisitions. Legal Procedures for Mergers and Acquisitions Forms of compensation. Anti-takeover strategies, Leveraged Buyouts, Portfolio restructuring. (5+2)

4. **Working Capital Management:** Determination of level of current assets, working capital financing by banks; Cash and liquidity Management- aspects of cash management, motives for holding cash and marketable securities, Cash Management Models, Strategies for managing surplus funds; Credit Management: Objectives of trade credit, credit policies. Control and collection of accounts receivables, role of factoring in receivables management (No problems on estimation of working capital). (9+2)

5. **Dividend Policy and Firm Value:** Why Firms Pay Dividends; Factors Influencing Dividend Policy; Legal and Procedural Aspects; Bonus Shares and Stock Splits; Share Buybacks and Valuation; Dividend Policies in Practice; Dividend Models: Walter's model, Gordon's model, Modigliani and Miller's Hypothesis; Models in Which Investment and Dividend Decisions are Related (8+2)

Note:

1. The weightage in the question paper shall be as follows: **Numerical problems: 60% & Theory: 40%**

2. Numerical problems on the following should be taught:

- Funds Flow Statement and Cash Flow Statement
- Calculating EVA
- Firm value (Theories of Capital Structure), PBIT - EPS Analysis
- Sensitivity analysis and Scenario analysis in risk analysis in Capital budgeting, Capital Rationing
- Calculation of Optimum Cash Balance using Operating Cycle Model and Inventory Model
- Receivables Management- calculation of collection period, Determining the number of uncollectible Receivables and Bad Debt Expense: Percent of Sales Method, Percent of Receivables Method
- Dividend Models: Walter's model, Gordon's model, Modigliani and Miller's Hypothesis;

Suggested Textbooks:

1. Financial Management: Text and Problems by M Y Khan & P K Jain, Publisher: TMH, New Delhi.
2. Financial Management Theory & Practice by Prasanna Chandra, Publisher: TMH, New Delhi.
3. Financial Management by I M Pandey, Publisher: Vikas Publishing House, New Delhi.
4. Advanced Financial Management by Dr. Mahesh Abale & Dr. Shriprakash Soni, Himalaya Publication House
5. Financial Management by Ravi Kishore, Publisher: Taxman's Publishing House, New Delhi.

6. Financial Management by C. Paramasivan, T. Subramanian, New Age
7. Financial Management by Dr. Anil Kumar Dhagat- Wiley India

Suggested Reading:

1. Financial Management: Theory & Practice by Eugene F. Brigham, Michael C. Ehrhardt
2. Fundamentals of Financial Management by Van Horne, Publisher: Prentice Hall of India.

Semester III		305 FIN – International Finance
3 Credit	LTP : 2:1:1	Subject Core (SC) Course – International Finance

Course Outcomes: On successful completion of the course the learner will be able to

CO#	Cognitive Ability	Course Outcomes
CO305FIN.1	Remembering	RECALL the basic concepts associated with international finance.
CO305FIN.2	Understanding	EXPLAIN the various the concepts related to Foreign Exchange Markets, transactions on the international foreign exchange market, Taxation Systems, International Receivables and cash management.
CO305FIN.3	Applying	USE International Monetary Fund, World Bank, credit rating agencies, foreign exchange, foreign exchange transactions, taxation system, International Receivables and cash management in International financial market.
CO305FIN.4	Analyzing	ANALYZE the role of exchange rate and credit rating agencies, foreign exchange transactions, taxation system, Receivables and cash management in International financial market.
CO305FIN.5	Evaluating	EVALUATE the International Monetary Fund, World Bank, credit rating agencies, foreign exchange, foreign exchange transactions, taxation system, Receivables and cash management in International finance.
CO305FIN.6	Creating	CREATE the investment/ business plan by adopting various international finance concepts

Unit Number	Contents	Number of Sessions
01	Introduction to International Finance: Meaning/Importance, Scope, Globalization of the World Economy, Goals of International Finance, Structure and participants of the global financial system, Functioning of the global financial system in the globalization process, Emerging Challenges in International Finance, Evolution of International Monetary System, International Financial Institutions: International Monetary Fund, World Bank. International credit rating agencies,.	8+1
02	Introduction to Foreign Exchange Markets: Structure of Foreign Exchange Markets, Types of Transactions and Settlement Date, Exchange Rate Quotations and Arbitrage, Interest Rate Parity, Purchasing Power Parity and Fisher's Parity, Forecasting Exchange Rates: Efficient Market Approach, Fundamental Approach, Technical Approach, Global Financial Markets and Interest Rates , Concept and types of currency, Convertibility of currency, Exchange rate: the nature, types and regimes, Demand and supply of foreign currency.	6+1
03	The transactions on the international foreign exchange market: Spot transactions, forward contracts, Future transactions, Swap transactions, option transactions, Transaction Exposure and Types, Foreign bonds market, Eurobonds market, Types of Bonds, floating Rate Notes (FRNs), Deep Discount Bonds, Zero Coupon Bonds, Dual Currency Bonds, and Equity related Bonds, Procedure for Bonds Issues	8+1
04	Taxation Systems and Legal Aspects: International double taxation and the ways of its regulation, Tax evasion, Definition of Money Laundering, organization of money laundering procedure: stages and methods, Monitoring, International	6+1

	cooperation in dealing with money laundering: the establishment of legal framework, The functions and activity of the FATF.	
05	International Receivables and cash management, Foreign exchange risk, The essence and types of currency risks, Risks of making decisions about foreign direct investment, Political risk, International Financial Reporting Standards (I.F.R.S) and Indian Accounting Standards (I.A.S) on foreign transactions, Foreign Exchange Trade Settlement in India, SWIFT, CHIPS, CHAPS	7+1

Suggested Textbooks:

1. International Finance by Rajiv Srivastav, Oxford University Press
2. International Financial Management by P.G. Apte 2010 Ed.
3. International Financial Management by Vyuptakesh Sharan
4. International Financial Management by S.P. Srinivasan
5. International Finance by Maurice Levi, Keith P. (2013 Edition)
6. Foreign Exchange, International Finance, Risk Management by A.V. Rajwade
7. Currency Exposures and Derivatives by A.V Rajwade

Suggested Reference Book:

1. International Finance, by Maurice Levi, 5th edition, Mc Graw Hill
2. International Financial Management by Jeff Madura; 2008, Cengage Learning
3. International Financial Management by Eun and Resnick, 4th edition Tata McGraw Hill
4. International Economics by Carbaugh 11th Edition, Cengage Learning.
5. Paul R Krugman and Maurice Obstfeld, 'International Economics', 8th edition
6. Multinational Financial Management by Alan Shapiro, 9th Ed, Wiley

Subject Electives (SE) Courses - Semester III
Specialization: Financial Management

Semester III		312 FIN – Behavioural Finance
2 Credit	LTP : 0:3:1	Subject Elective (SE) Course – Financial Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	Cognitive Ability	Course Outcomes
CO312FIN.1	Remembering	Enumerate the concepts and assumptions associated with traditional and behavioral finance.
CO312FIN.2	Understanding	Illustrate the various important theories, heuristics & biases associated with financial decision making.
CO312FIN.3	Applying	Identify behavioural factors that influence financial decision making at individual & corporate level.
CO312FIN.4	Analyzing	Analyze the implications of human psychology on financial decision makers and financial markets.
CO312FIN.5	Evaluating	Interpret various investment strategies based on theories of personal & corporate behavioural finance.
CO312FIN.6	Creating	Plan the systematic approach for efficient financial decisions taking into account behavioural factors.

- 1. Introduction to Behavioral Finance:** Traditional / Conventional / Standard View of Financial Markets - basic concepts, assumptions & limitations; Financial Market inefficiencies - Anomalies & crisis; Evolution, objectives & scope of Behavioral finance; Difference between Standard Finance & Behavioral Finance. (4+1)
- 2. Sources of Irrationality:** External factors defining investors behavior - Demographic, Social, Economic, phases & effect of Geomagnetic Storm on financial market; Types of investors; Investment Cycle - Boom & Bust Cycles, Fear & Greed in Financial Market and systematic investors sentiments. (4+1)
- 3. Theories of Behavioral Finance:** Bounded Rationality & Cognitive Dissonance; Self-perception; Prospect Theory & Loss aversion; Risk aversion; Limit to Arbitrage & cost involved in arbitrage process; Model of limited Attention, Framing, Mental Accounting. (4+1)
- 4. Biases theories:** Heuristics & its types; Sources & classification of biases - heuristic drive & frame driven, cognitive & emotional biases; Impact of different biases on investors; Nudge Theory; Characteristics of extremely successful investors. (4+1)
- 5. Corporate Behavioral Finance:** Introduction, Corporate financial decision making: heuristics & biases affecting behavior during investment, financing & dividend decisions; Presence and absence of Dividend, Ex-Dividend Day behavior, timing of corporate news/ announcement, insider trading, corporate scandals. (4+1)

Suggested Textbooks:

1. Behavioral Finance: Psychology, Decision-Making, and Markets", by Ackert and Deaves.
2. Understanding Behavioral Finance by Ackert
3. The Psychology of Investing by John R. Nofsinger, Pearson Prentice Hall, (4th Edition)
4. What Investors Really Want - Learn the lessons of behavioral Finance, Meir Statman, McGraw-Hill
5. Behavioral Finance by Shuchita Singh, Shilpa Bahl

Suggested Reference Book:

1. Handbook of Behavioral Finance – Brian R. Bruce

2. Behavioral finance - Wiley Finance - Joachim Goldberg, Rüdiger von Nitzsch
3. Behavioral finance – Peter Dybdahl Hede
4. Behavioral Finance – Ackert, L.F. & Deaves,R

Semester III		313 FIN: Technical Analysis of Financial Markets
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Financial Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO313FIN.1	Remembering	Remember the concepts, terminologies, frameworks, tools, techniques and theories of technical analysis taught in the syllabus.
CO313FIN.2	Understanding	UNDERSTAND the applications of technical analysis and the various types of charts and the psychology behind a pattern and its formation
CO313FIN.3	Applying	MAKE PRACTICAL USE of the Theories, Models, Principles and Frameworks of technical analysis for estimating market prices of different securities
CO313FIN.4	Analyzing	ANALYSE AND FORECAST the market prices of securities in order to take and execute investment decisions
CO313FIN.5	Evaluating	EVALUATE opportunities for Buy & Sale on the basis of technical analysis
CO313FIN.6	Creating	FORMULATE an ideal portfolio of investments with a combination of wide number of securities

1. **Introduction to Technical Analysis:** Definition and Concept, Price discounts everything, Price movements are not totally random, Technical Analysis: Basic Assumptions, Strengths and Weakness of Technical Analysis, Importance of Technical Analysis, Dow Theory – Introduction, Principles of Dow Theory, Significance of Dow Theory, Problems with Dow Theory, Constructing and Interpreting Charts and the formation, Evolving a Trading strategy based on patterns. **(4+1)**
2. **Company Analysis Using Technical Analysis:** Understanding various Charts: Bullish Trend, Bearish Trend, Price Chart, Line Chart, Bar Chart, Japanese Candle Stick Chart, Point and Figure Chart, Candlestick Patterns – Doji, Harami, Piercing, Engulfing, Morning Star, Evening Star, Hammer, Inverse Hammer and Hanging Man, Chart Patterns – Support and Resistance, Reversal Patterns - Head and Shoulder Formation, Inverse Head and Shoulder Formation, Double Formations, Rounding Patterns, Rectangle Formation, Wedge Formations, Continuation Patterns – Triangles, Flags and Pennants, Overall Decision Making for Purchase / Sale of Share of a Company. **(6+1)**
3. **Company Analysis Using Market Information:** Volume and Open Interest, Concept and Calculation of Oscillators from the data of five years prices, High, Low, Average Price, Simple Moving Averages, Exponential Moving Averages, Rate of Change Indicators (ROC), Relative Strength Index, (RSI), Moving Average Convergence and Divergence (MACD), STOCHASTIC, VWAP **(5+1)**
4. **Trading Strategies:** Day Trading, Advantages of Day Trading, Risks Associated with Risk Day Trading, Strategies for Day Trading, Momentum Trading Strategies. Elliot Wave Theory, Elliot Wave – Introduction, Fundamental Concept, After Elliott. **(5+1)**
5. **Trading Psychology and Risk Management:** Introduction and Components of Risk Management, Stop Loss, Analyze Reward Risk Ratio, Trail Stop Loss, Booking Profit, Uses of Stop Loss, Qualities of Successful Trader, Golden Rules of Traders, Do's and Don'ts in Trading, Rules to Stop Losing Money Choosing the Right Market to Trade, Importance of Discipline in Trading, Efficient Market Theory. **(5+1)**

Suggested Books:

1. Technical Analysis of financial markets: A comprehensive guide to trading methods & applications – John J. Murphy
2. Technical Analysis Explained: The Successful Investor's Guide to Spotting.
3. Investment Trends and Turning Points - Martin J. Pring.
4. Technical Analysis of Stock Trends, 8th Edition - Robert D. Edwards, John Magee, W. H. C. Bassetti.
5. Technical Analysis for Indian Financial Markets – Shriram Nerlekar, Ashish Kelkar

Semester II		314FIN: Commodities Markets
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Financial Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO314FIN.1	REMEMBERING	DESCRIBE the key concepts of Commodities Markets
CO314FIN.2	UNDERSTANDING	Understanding the pricing mechanism of commodity, regulatory framework and the difference between commodity and financial derivatives
CO314FIN.3	APPLYING	APPLY all the required strategies and calculations of commodities trading.
CO314FIN.4	ANALYSING	ANALYZE both the fundamental and technical factors that drive the commodity price movements
CO314FIN.5	EVALUATING	EVALUATE the various methods and tools to detect the pulse of the markets and determine the trend in which the prices are moving.
CO314FIN.6	CREATING	ADAPT the skills of commodity analysis and build their own trading strategies

1. **Understanding Commodities and Derivatives:** - Definition of commodity, Kinds of commodity, importance of commodity, Commodities as a New Asset Class, Evolution of Commodity Exchange, FCR Act 1952 and Regulatory structure of Commodities Derivatives Markets in India, Definition of derivative, Types of Derivatives, Over the Counter Derivative, Exchange Traded Derivatives, Difference between commodity and financial derivatives, Physical settlement, Warehousing, Historical changes and growth of global and domestic Commodities derivatives markets, Global commodities derivatives exchanges : - Africa, Asia, Latin America, Commodities as an investment tool for investors, The Kabra committee report and Latest developments. Evolution of Commodity Exchange, NCDEX Platform - Structure of NCDEX, commodities traded on NCDEX platform
(4+1)

2. **Product design and Instruments for trading and pricing of commodity derivatives:** Issues Related to Product Design and contract specifications, Issues related to Spot price and present practices of commodities exchanges, Agricultural Commodities Markets & Non- Agricultural Commodities Markets: Issues in Agricultural & Non- Agricultural Commodities Markets, Agricultural & Non Agricultural Commodity Futures trading pattern in Exchange Commodities Derivative Exchanges and design of the markets. Basis Risk and its importance in pricing, Commodity Options on Futures and its mechanism. Instruments available for trading Forward contracts, Futures, Distinction between futures and forwards contracts, Options, Basic payoffs, Payoff for futures, Payoff for options, Pricing commodity futures, Investment assets versus consumption assets, The cost of carry model, Pricing futures contracts on investment commodities, Pricing futures contracts on consumption commodities. **(7+1)**

3. **Basic principles of hedging, speculation and arbitrage:** Using commodity futures, Hedging: - Basic principles of hedging, Short hedge, Long hedge, Hedge ratio, Advantages of hedging, Limitation of hedging, Speculation: - Speculation: Bullish commodity, buy futures, Speculation: Bearish commodity, sell futures, Arbitrage: - Overpriced commodity futures: buy spot, sell futures, Underpriced commodity futures: buy futures, sell spot. **(5+1)**

4. **Market Mechanism:** Trading- Futures trading system, Entities in the trading system, Guidelines for allotment of client code, Contract specifications for commodity futures, Commodity futures trading cycle, Order types and trading parameters, Margins for trading in futures, Charges. Clearing and settlement, Clearing: - Clearing mechanism, Clearing banks, Depository participants, Settlement: - Settlement mechanism, Settlement methods, Entities involved in physical settlement, Risk management. **(4+1)**

5. **Analysis of commodities:** - Introduction to Technical Analysis, Philosophy of Technical Analysis, Relationship between Price and Time, Volume and Open Interest, Basics of Dow Theory, Basic concepts of Trend, Lines Support & Resistances, Reversal and Continuation Patterns, Basics of Gap Theory, Introduction to Indicators and Oscillators. Fundamental Analysis in Commodity Market, Basic Significance of Fundamental Analysis, Classification of Commodities, Factors Affecting Commodities, Analytical Techniques, Commodity Baskets, Correlation Between Commodities, Interrelation between Other Asset Classes and Commodities **(5+1)**

Suggested Text Books:

1. Commodity Derivatives – IIBF
2. Futures & Options (equities & commodities) – A.N. Sridhar

3. Commodity Derivatives: Markets and Applications - Neil C. Schofield
4. Commodity Derivatives: Markets and Applications (The Wiley Finance Series) - Neil C. Schofield

Suggested Reference Books

1. Commodities and Commodity Derivatives: Modeling and Pricing for Agricultural, Metals and Energy – Helyette Geman
2. Risk Management in Commodity Markets: From Shipping to Agricultural and Energy (The Wiley Finance Series) – Helyette Geman
3. Guide to Indian Commodity Market : Ankit Gala & Jitendra Gala
4. Commodities Markets and Derivatives : B. Kulkarni

Supplementary Reading Material

NCFM Module on Commodity Derivatives

SEMESTER III		315 FIN – Indirect Taxation
2 Credit	LTP : 1:1:1	Subject Elective (SE-IL) Course – Financial Management

Course Outcomes: On successful completion of the course the learner will be able to:

CO#	Cognitive Ability	Course Outcomes
CO315FIN.1	Remembering	Remembering the key concepts of Indirect Taxes in India Identifying and enumerating the various terms associated with GST and other indirect taxes.
CO315FIN.2	Understanding	Explain how GST works as an Uniform Tax Structure, Illustrate the GST framework of India, & describe the important concepts such as supply, dual taxation method, registration process, etc.
CO315FIN.3	Applying	Apply the theories and Principles and perform all calculation through numerical problems on valuation and calculation of taxes. Identify the time value of supply; determine the taxable person and tax levied on goods and services.
CO315FIN.4	Analysing	Illustrate the e filling process of GST Categorize the Goods and Services under GST and amount of tax to be paid using Dual tax concept.
CO315FIN.5	Evaluating	Evaluate Input Tax Credit Process, reversal, late filing and New Amendments; appraise various indirect taxes; Interpret the GST framework in India & verify the tax levied on Goods and Services.
CO315FIN.6	Creating	Elaborate all Provisions of GST and can correlate with filing of returns; virtual e filling can be done Estimate the GST, TDS, anticipate goods, services, tax payable person for the business.

1. **Introduction:** Indirect Taxes - Concept, GST, Need and Genesis of GST. **Dual GST Model:** CGST, SGST, UTGS, IGST. GST Network, GST council, Role and Phases of GST Council, Constitutional provisions to enforce indirect Taxes & GST, CESS **(5 + 1)**
2. **Registration under GST:** Registration Procedure, Persons not liable for registration, Compulsory registration, Deemed registration, Cancellation vs. Revocation of registration, Unique Identification Number, Registration Number Format. **(5 + 1)**
Types and periodicity of GST return for different categories of Taxpayers (Regular Tax Payer, Composition Tax Payer, Casual Taxable Person, Non-Resident Taxable Person, etc).**5 + 1)**
3. **Supply under GST and Valuation of Supply: Key Concepts-** Levy and Collection of Tax, Supply, Place of Supply, Interstate and Intrastate Supply, Export of Service, Export of Goods, Imports of Goods, Import of Service, Valuation of Supply, Types of Supply under GST Regime, Composition Levy, Exemption from tax, Person liable to pay tax, Tax Deduction at source (TDS) under GST. **(5 + 1)**

4. **Input Tax Credit under GST & Returns:** Input Tax Credit Process, Negative List for Input Tax Credit, Input Tax Credit Utilization and Input Tax Credit Reversal, Types of GST returns and their due dates, late filing, late fee and interest. Reverse Charge Mechanism
New GST Returns - Overview, Forms, Invoices, ITC, Amendments, Offline Tools; New GST Return System, Forms to be filled and Process of New Return Filing System; New Amendments introduced in New GST Return System.

(5 + 1)

5. Definitions of certain terms relating to the custom act, custom tariff act, Levy and types of custom duties, Basic customs duty, IGST, Protective duties, Safeguard duty, Countervailing Duty on subsidized articles, Anti-dumping duty, Import Procedure, Export Procedures, Valuation of Imported Goods, Valuation of Export Goods, Penalties under Customs, Refund. (5 + 1)

*Note: 1. Numericals will be asked on valuation and calculation of Taxes (Unit 3).

(80: 20 :: Theory : Numerical)

Suggested Books:

1. Indirect Tax Reform in India: 1947 To GST and Beyond Book by Vinay K. Srivastava and Yashwant Sinha
2. GST Acts, Rules & Forms with Reference By Ashok Batra
3. Taxmann's Basics of GST
4. Taxmann's GST: A practical Approach Theory & Practice of GST, Srivathsala, HPH
5. Theory & Practice of GST: Dr. Ravi M.N, PBP.

Semester III		316 FIN – Corporate Financial Restructuring
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Financial Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO316FIN.1	REMEMBERING	DESCRIBE the basic concepts related corporate restructuring, Mergers & Acquisitions, Valuation Aspects of Corporate Restructuring and Corporate Governance Aspects of Restructuring.
CO316FIN.2	UNDERSTANDING	EXPLAIN the motivations, decision processes, transaction execution, and valuation consequences of financial, business, and organizational restructuring by corporate units.
CO316FIN.3	APPLYING	PERFORM all the required calculations through relevant numerical problems.
CO316FIN.4	ANALYSING	ANALYZE the situation by calculations of exchange ratio, financial returns, valuations and others.
CO316FIN.5	EVALUATING	EVALUATE impact of corporate financial restructuring on all stakeholders
CO316FIN.6	CREATING	CREATE an interface and model on various dimensions of corporate finance and restructuring process.

1. **Basic concepts:** Basic concepts: Meaning of Corporate Restructuring, Need, Scope, Concept of Internal & External Restructuring, **different forms** and motives, applications of corporate restructuring, financial perspective in restructuring, Reorganization strategies in corporate organizations. **(4+1)**
2. **Overview of Corporate Finance and Corporate restructuring** Financial Restructuring & Divestiture, Funding Options for M&A. Strategic Alliances & Joint Ventures, Employee Stock Ownership, Going Private & Leveraged Buyouts. Creating Value through Corporate Restructuring-Corporate Reorganization Strategies-Spin-Offs, Equity Carve-Outs, Target Stock and Divestitures, Financial Distress & Bankruptcy, Liquidation, Net Operating Losses, Sources of Funding & Problem of changing Capital Structure, Strategic and Financial Sponsors, Pros and Cons of different Sponsors, Capital Cash Flows Vs. Equity Cash Flows **(6+1)**
3. **Dimensions of Mergers & Acquisitions:** Mergers & acquisitions concept, types and process, Accounting for Mergers & Demergers, Regulatory framework of mergers and acquisitions. Due diligence for M&A, Cross-Border Mergers & Acquisitions. Take-over and Defense Tactics Structural Defenses Vs. Non Structural Defenses, Contribution Analysis, Duties of Board of Directors, Market for Corporate Control. **(4+1)**
4. **Valuation Aspects of Corporate Restructuring:** Methods of payment for M & A and Calculations of exchange ratio, Fundamental and methods of business valuation, Calculations of financial synergy and return, Different

approaches of valuation – Comparable company & transaction analysis method, DCF, Real Option method, Equity/Residual Cash Flows, Adjusted Present Value, Capital / Leveraged Cash Flows, Relative Valuation Analysis, Sensitivity Analysis, Tables, Developing Break Up Analysis. **(6+1)**

- 5. Corporate Governance Aspects of Restructuring:** Domestic & International trends relating to governance practices pertaining to Corporate Restructuring, Reference of Corporate Governance in Indian Companies Act (Amended) 2013, SEBI Regulations, Listing Agreement etc. Shareholder democracy in restructuring process, role of investors creditors, role of non-executive directors in restructuring process, Disclosures and Clarifications on the part of Board of Directors and Inclusion in the Auditors' Report. **(5+1)**

Note:

1. To facilitate understanding of corporate merger and acquisition activity, restructurings and corporate governance relevant Cases should be incorporated in teaching pedagogy.
2. **Numerical Problem will be asked on the following:**
 1. Calculations of exchange ratio,
 2. Calculations of financial synergy and return,
 3. Different approaches of valuation – Comparable
 4. Company & transaction analysis method, Discounted Cash Flow (DCF),
 5. Real Option method,
 6. Formula approach for valuation and other important methods of valuation.

Suggested Text Books:

1. Corporate Restructuring, Bhagaban Das and Debdas Raskhit, Himalaya Publishing House
2. Financial Management, R. P. Rustagi, Galgotia Publishing
3. Strategic Financial Management, Ravi M. Kishor, Taxmann,
4. Mergers, Acquisitions and Corporate Restructurings, Gaughan, P.A., John Wiley and Sons
5. Financial Management, Prasanna Chandra, TATA McGraw Hill

Suggested Reference Books

1. Mergers & Acquisitions, B Rajesh Kumar, TATA McGraw Hill, Latest Edition
2. Mergers and Acquisitions, Aurora, Shetty and Kale, Oxford,
3. Takeovers, Restructuring, and Corporate Governance, James J. Fred Weston, Mark L. Mitchell, J. Harold, Pearson
4. Corporate Finance, Ashwath Damodaran, Wiley India,

Supplementary Reading Material

1. Case Studies in Mergers & Acquisitions – ICAI University – ICAI University Press,
2. Case Studies on Mergers & Acquisitions – R. Muthukumar – ICAI University Press

List of Journals / Periodicals / Magazines / Newspapers / Web resources, etc.

1. Business Standard
2. The Economic Times
3. Financial Express
4. Journal of Applied Finance
5. CFA Reader
6. Business Today
7. Finance India

Semester III		317 FIN: Financial Modeling
2 Credits	LTP: 2:0:0	Subject Elective (SE) Course – Financial Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO317.1	REMEMBERING	Remember the concepts, terminologies, frameworks, tools and techniques of Financial modeling

CO317.2	UNDERSTANDING	UNDERSTAND the applications and use of MS Excel in financial modeling and its different techniques
CO317.3	APPLYING	DEVELOP, APPLY and actually use core functionality of MS Excel in decision framework to solve managerial problems
CO317.4	ANALYSING	ANALYSE different financial models in order to eliminate substantial risk of poor spreadsheet coding
CO317.5	EVALUATING	FORMULATE an idea and acceptable solutions to solve different problems in the area of financial management
CO317.6	Creating	BUILD financial models by making appropriate assumptions on financial factors relevant to the situation.

- 1. Introduction:** Meaning, Benefits and Uses of Financial Modeling. **1.2) Basic Excel for Financial Modeling:** Formatting of Excel Sheets, Use of Excel Formula Function, Advanced Modeling Techniques, Data Filter and Sort, Charts and Graphs, Table formula and Scenario building, Lookups: Vlookup Match & offset, pivot tables. **(5+1)**
- 2. Financial Statement Analysis:** Introduction to Financial Statement Analysis, Financial Reporting Mechanics, Understanding Income Statement, Balance Sheet, Cash Flow Statement, Common-size and Comparative Statements. **(5+1)**
- 3. Financial Ratios:** Ratio analysis of industries, Du point Analysis, Peer to peer analysis, Preparation of Financial Analysis report on an industry. **(4+1)**
- 4. Financial Management:** Time value of money, Long term financing, Cost of capital, Measure of Leverage, Budgets, Types of Budgets. **(4+1)**
- 5. Equity Research Modeling:** Prepare an Income Statement, Balance sheet, Cash Flow Statement, Geographic Revenue Sheet, Segment, Revenue Sheet, Cost Statement, Debt Sheet, Analyze Revenue Drivers, Forecast Geographic & Segment Revenues, Cost Statement, Debt, Income Statement, Balance Sheet, and Cash Flow Statement, Performa Adjustments, Income Statement - Compute Margins, Balance Sheet -Compute Ratios, Cash Flow Statement Projection, Valuation- Discounted Cash Flow Method (DCF), Valuation – Relative Valuation (Football Field Chart), Valuation – Assumptions for Valuation Model, Prepare Valuation Model, Prepare Presentation Sheet, Prepare Company Overview , Sector Overview. **(7+1)**

Suggested Books:

- 1) Business Data Analysis using Excel – David Whigham – Oxford University Press
- 2) Mastering Financial Modeling in Microsoft Excel – Alastair L. Day
- 3) Practical Financial Modeling – Jonathoan Swan

Reference Books:

- 1) Financial Modeling Using Excel and VBA by Chandan Sengupts, John Wiley & Sons
- 2) Building Financial Models with Microsoft Excel: A Guide for Business Professionals, K. Scott Proctor, 2nd Edition, John Wiley & Sons
- 3) Advanced Modeling in Finance using Excel and VBA By Mary Jackson, Mike Staunton, John Wiley & Sons
- 4) Next Generation Excel: Modeling in Excel for Analysts and MBAs By Isaac Gottlieb, John Wiley & Sons
- 5) Financial Modeling Module, NSE Academy

Semester III		318 Fin–Digital Banking
2 Credits	LTP: 2:1:1	Subject Elective (SE) Course- Financial Management (Fin)

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO318 FIN 1	REMEMBERING	Remember various concepts and products in Digital Banking
CO318 FIN.2	UNDERSTANDING	Explain and understand the significance and development of Digital Banking
CO318 FIN 3	APPLYING	Compare and contrast the Branchless Banking and Traditional Banking
CO318 FIN.4	ANALYSING	Analyze the payment system of digital banking from consumer’s point of view
CO318 FIN.5	EVALUATING	Evaluate Role of digital banking and emerging technologies in economic development

CO318 FIN.6	CREATING	Create a holistic digital transformation strategy for a bank
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1. Introduction to Digital Banking: Concept, Advantages, Products, significance, development of digital Banking, Distinct Functionaries/Dimensions of a Digital Bank , Customer Education for Digital Banking, Role of digital banking in economic development, Financial Inclusion **(5+1)**

2. Digital Banking Products: ATMs : Instant Money Transfer Systems, Proprietary, Brown Label and White Label ATMs, ATM Network Planning – Onsite / Offsite, Security and Surveillance of ATM Sites, **Cash Deposit Machines :** Overview, Features, CDM Network Planning – Onsite / Offsite and Profitability of CDMs, **Mobile Banking:** Overview and Brief History, Product Features and Diversity, IMPS, Profitability of Mobile Banking, Risk Management and Frauds, **Internet Banking :** Product Features Corporate and Individual Internet Banking, Integration with e-Commerce Merchant sites, Back End Operations and Technology, **(7+1)**

3. Branchless Banking: Objectives, Introduction, Financial Inclusion – Logic and logistics, Vehicles for Financial Inclusion, Business Correspondents / Business facilitators, Digital Banking Products for Financial Inclusion **(4+1)**

Payment System: Overview of global and domestic payment systems, Immediate Payment Service (IMPS), National Unified USSD Platform (NUUP) and UPI, Participants in UPI, Benefits to Participants, National Automated Clearing House (NACH) Aadhaar Enabled Payment System (AEPS) , e-KYC , Cheque truncation System (CTS) , National Financial Switch (NFS) , RTGS , NEFT, (6+1)

4. Innovation and Banking: Innovative Technologies in Banking: Artificial Intelligence, Machine Learning, Big Data, Block Chain, Forex Settlement **(3+1)**

Suggested Books:

1. Digital Banking – Indian Institute of Banking and Finance
2. The Digital Banking Revolution – Lugi Wewege
3. Digital Bank : Strategies to Launch or become a Digital Bank – Chris Skinner

Reference Material:

1. Banking Beyond Banks and Money : A guide to Banking Services in Twenty first Century – Paolo Tasca, Tomaso Aste, Lorian Pelizzon, Nicolas Perony
2. www.rbi.org.in

SEMESTER III		319 FIN – Treasury Management
2 Credit	LTP : 2:1:0	Subject Elective (SE-IL) Course – Financial Management

Course Outcomes: On successful completion of the course the learner will be able to:

CO#	Cognitive Ability	Course Outcomes
CO319FIN.1	Remembering	REMEMBER the key concepts of Treasury Management
CO319FIN.2	Understanding	UNDERSTAND the role of Treasury Management in Business world.
CO319FIN.3	Applying	APPLY the acquired knowledge to real-life treasury management problems
CO319FIN.4	Analysing	ANALYSE the techniques used to identify and manage exposure to cash-flow and liquidity risk
CO319FIN.5	Evaluating	Evaluate the risk management framework required for corporate, banking and government entities in areas such as foreign exchange, interest rates, liquidity, credit and commodity price risk management;
CO319FIN.6	Creating	Identify and develop key strategies for treasury management

1 Basics of Treasury Management: Evolution, Objectives, Organization Structure of Treasury, Functions of treasury, Responsibilities of Treasury Manager, Role and Functions of RBI, Recent Developments in the RBI's Policy Framework.

2 Classification of Treasury Markets: Domestic and International; Foreign Exchange Markets, Role of Banks in Forex Market, Factors impacting Forex Market, International Treasury – Market participants, various forex Treasury products, volatility of major currencies, currency Trading. Short Term and Long Term Funding, Cost Centre / Profit Centre: Financial Planning and Control, Capital Budgeting, Risk Analysis **(5 + 1)**

3 Cash Management: Meaning and Importance of Cash Management, Objectives of Cash Management, Cash Flow Cycle, Cash Flow Budgeting and Forecasting, Liquidity Management: Objectives, Sources & Maturity Concerns: Short term and Long term Liquidity **(5 + 1)**

4 Internal Control: The Need and Importance – Financial and Operational risks – Internal v/s External Control, The Need and Significance of Internal and External Audit. **(5 + 1)**

5 Treasury's role in International Banking: Changing Global Scenario and Treasury Functions, Treasury Structure- Front and Back Office, Forex Cash Management – Positions v/s Cash Flows Funding Alternatives, Moral and Ethical aspects. **(5 + 1)**

Suggested Books:

6. Financial Management – Ravi Kishore
7. Cost Accounting & Financial Management – Ravi Kishore – Taxman Publication,
8. Corporate Finance & Investment –R. Pike and B Neale – Prentice Hall of India,
9. International Corporate Finance – Ghosh Roy - Mac Milan India
10. Effective Management Workout – V.K.Singh – Himalaya Publishing House

Websites:

1. www.treasury-management.com
2. www.iibf.org.in
3. www.icai.org,

Semester III		320 FIN - Project Finance and Trade Finance
2 Credits	LTP: 1:2:0	Subject Elective (SE-IL) Course – Finance Specialization

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO320.1	REMEMBERING	REMEMBER the concepts of Project Finance and Trade Finance.
CO320.2	UNDERSTANDING	SUMMARIZE the key aspects in context with Project Finance and Trade Finance.
CO320.3	APPLYING	IDENTIFY the applicability of Project Finance and Trade Finance in modern business era.
CO320.4	ANALYSING	EXAMINE the risks involved in Project Finance and Trade Finance.
CO320.5	EVALUATING	EVALUATE the proposal of securing finance by considering the capital structure and documentation involved.
CO320FIN.6	CREATING	CREATE proposal for trade finance and project finance

1. Project Finance & Trade Finance Overview: Definition & Characteristics of Project Finance, Pre-requisites, Typical PF examples. **Trade Finance (TF):** Importance of Trade Finance, Benefits of Trade Finance. Who benefits from trade finance, Challenges for SMEs in accessing trade finance. **(5+1)**

2. Project Evaluation Criteria & Domestic Trade – Steps Involved In Project Assessment, Introduction to Capital Budgeting tools & techniques for Project evaluation, Cash Flow Management, Measures used by Investors: Payback period, Net Present Value (NPV), Internal Rate of Return (IRR) Domestic trade-method of Financing - Working Capital - Appraisal and sanction - Deferred payment guarantee - Securitization - Factoring. **(5+1)**

3. Current Project Finance Market: PF market expansion, Market highlights, PF market by sector, PF market by geography. **Project Financing in India:** Means of Finance, Norms and Policies of Financial Institutions, SEBI Guidelines, Sample Financing plans, Schemes of assistance, term Loans procedures, Project Appraisal by Financial Institutions. **(5+1)**

4. Project & Trade Finance Risks -Project Finance and Commercial Risks ,Project Finance and Macroeconomic Risks, Regulatory and Political Risk, Risk Mitigation Methodologies for Projects, Risks involved in trade finance - country risk, currency risk, credit risk, counter party risk, exchange risk, legal risk. **(5+1)**

5. Process & Documentation in Project & Trade Finance: Assess the appropriateness of the capital structure and features of the debt structure and its Documentation- Security and credit rights, Payment waterfall, Collateral and assignment of contract rights, Rights of the controlling classes, inter-creditor issues, Structural features, Debt service covenants, Reserve accounts, cash sweeps, profit distribution controls. **(5+1)**

Suggested TextBooks:

1. Project Management – Prasanna Chandra
2. Principles of Project Finance - Yescombe, E. R. (2002), Academic Press, California.
3. How to access trade finance, James Sinclair, Trade Finance Global.

Suggested Reference Books

1. Advanced Project Management – Harrison F.L.
2. Project financing (7 ed.) - Nevitt, P.K. & Fabozzi, F. J. (2000), London, UK: Euromoney Books
3. Investment project design - A guide to financial and economic analysis with constraints, Kurowski, L. & Sussman, D (2011), New Jersey: John Wiley & Sons.
8. Project finance for construction and infrastructure: Principles and case studies - Pretorius, F., Lejot, P., McInnis, A., Arner, D.& Hsu, B. F.-C. (2008), Oxford: Blackwell Publishing.
9. Trade Finance Guide, A Quick Reference for U.S. Exporters
10. Comptroller's Handbook Trade Finance and Services, Version 1.0, April 2015

Semester III		321 FIN Insurance Laws and Regulation
2 Credits	LTP: 2:0:0	Subject Elective- Institute Level

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO321FIN.1	REMEMBERING	RELATE to terminologies used in Insurance Law
CO321 FIN.2	UNDERSTANDING	EXPLAIN the role of insurance law in overall development of the country through risk management and insurance coverage.
CO321 FIN.3	APPLYING	IDENTIFY risk management plans , strategies and techniques in Life and General Insurance.
CO321 FIN.4	ANALYSING	APPRAISE Regulatory Framework of Insurance Business in India & Corporate Governance Practices for Insurance Companies.
CO321 FIN.5	EVALUATING	ASSESS the insurance policies in the light of risk valuation.
CO321 FIN.6	CREATING	DESIGN the Insurance Policy (Life/General) on a hypothetical situation & calculating the annuity for a specified life insurance product

1. **Introduction:** History and Evolution of Insurance; Risk Management; Nature of Insurance Contract; Types of Insurance Life and General Insurance. Constitutional Perspective. Theory of Cooperation, Theory of Probability, Principles of Insurance, Utmost Good Faith, Insurable Interest & Reinsurance (4)
2. **Regulatory Framework of Insurance Business in India:** Development of Insurance Legislation in India and Insurance Act 1938; Insurance Regulatory and Development Authority of India (IRDAI) Functions and Insurance Councils; IRDAI and its Licensing Functions; Policy Holders Rights of Assignment, Nomination and Transfer; Protection of Policy Holders Interest; Dispute Resolution Mechanism; Financial Regulatory Aspects of Solvency Margin and Investment International Trends In Insurance Regulation. Other Relevant Legislation (Motor Vehicles Act, Marine Insurance Act, Employees State Insurance Act etc.), Consumer Protection, Courts, Tribunals, Insurance Ombudsmen, Arbitration (8)
3. **Life Insurance:** Nature, Scope and Practice, Application of Principles in Life Insurance Contract — Representation - Assignment and Nomination - Title and Claims - Tax Law Implications - Concept of Trusts in Life Policy - Stamp Duties - Role and Function of Life Insurance Companies. Life Insurance & Pension Products. (5)
4. **General Insurance:** Practices and Procedures: Practices and Procedures: Introduction to General Insurance; Policy Documents and forms; Underwriting; General Insurance Products: Property Insurance (Fire and Engineering) , Marine Insurance (Hull and Cargo) (8)

5. **International Insurance and Regulation:** Formation of International Insurance contracts; International Association of Insurance Supervisors – Future Trends . Enforcement and settlement. Conventions regulating Insurance on Maritime and Nuclear disaster. (5)

Suggested Text Books:

1. T.S. Mann, Law And Practice Of Life Insurance, Deep and Deep Publications, 7th edn (2011)
2. Utpal Rajan Sarkaar, Motor Accidents And Motor Insurance Claims, Sodhi Publications, 5rd Edn. (2015)
3. R.P. Katariya, An Exhaustive Commentary On Motor Vehicle Act 1988, Unique Law Publications, 5th Edn (2012)

Reference Reading:

1. Banerjee, law of insurance, Asia Law House, Hyderabad, (1997)
2. J.V.N Jaiswal, Law Of Insurance, Eastern Book Company, 9th edn. (2008)
3. Principles and Practice of Life Insurance, Committee on Insurance and Pension, The Institute of Chartered Accountants of India, Fourth Edition-October, 2008, New Delhi
4. Insurance - Law & Practice, The Institute Of Company Secretaries Of India, December 2019, New Delhi

Semester III		322FIN – Marine Insurance
2 Credits	LTP: 1:2:0	Subject Elective (SE-IL) Course – Finance Specialization

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO322FIN.1	REMEMBERING	Enumerate the key terms associate with Marine Insurance, Documentation and Reinsurance.
CO322FIN.2	UNDERSTANDING	Understand various statutes applicable, necessary arrangements and documentation required for Marine Insurance.
CO322FIN.3	APPLYING	Determine the insurance cover and policy type considering the risk involved.
CO322FIN.4	ANALYSING	Detect the insurable interest, probable losses and the profitability element.
CO322FIN.5	EVALUATING	Evaluate the risk involved and need for reinsurance
CO322FIN.6	CREATING	DESIGN the Marine Insurance Policy on a hypothetical situation

1. **Introduction to Marine Insurance:** Definition, Concept, Significance, Reasons of Marine Insurance and Application Process, Scope of Marine Insurance, Nature & Functions of Marine Insurance, General Features of Marine Insurance. Meaning of Marine Perils, Warranties & Types of Warranties, Meaning of Underwriting & Role of Underwriter. **(5+1)**
2. **Fundamental Principles and Legal Framework of Marine Insurance:** Principle of Utmost Good Faith, Principle of Insurable Interest, Principle of Indemnity, Principle of Subrogation. First Lloyd's Act & Second Lloyd's Act **(5+1)**
3. **Arranging for Insurance (Cargo):** Proposal Form – factors for acceptance – Type of Vessel – The Voyage or Transit – Type of Cargo – Packing forms – Containerization – Conditions of Insurance – Inco Terms – Declaration Forms – Marine Cover Note – Policy Form – endorsements – Container Transport.
4. **Marine Insurance Policy-** Introduction to Marine Insurance Policies, Types of Marine Policies-Time & Voyage Policies, Special Rules for Voyage Policies, Time Policy and Mixed policy. **(5+1)**
5. **Risk Management & Reinsurance:** Introduction to Reinsurance, Need for reinsurance, Risk distribution through reinsurance, Reinsurance Process flow, Risk Management through reinsurers, Types & Benefits of Reinsurance. **(5+1)**

Suggested Textbooks:

1. The Principles of Marine Insurance, A. Primer, Harold Turner
2. Controlling Cargo Theft, Tyska Fennely
3. Inland Marine Insurance, Roderick McNamma
4. Law of Marine Insurance, Hodges, Susan
5. Bennet Marine Insurance Fraud, Baris Soyer

6. Law of Marine Insurance, Howard

Suggested Reference Books

1. Marine Insurance Law, Ozlem Gruses, Routledge
2. Cases and Materials on Marine Insurance law, Susan Hodges, 1st Edition
3. A System of the law of Marine Insurances, Sir James Alan Park, Hardpress Publisher
4. Law of Representations, John Duer, Hardpress Publisher

Semester III		323FIN: Fire Insurance
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Financial Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO323.1	REMEMBERING	UNDERSTAND the major concepts and terms in fire insurance
CO323.2	UNDERSTANDING	EXPLAIN the procedure of underwriting, claims and settlement
CO323.3	APPLYING	IDENTIFY the types of Fire Hazards and the suitable policies
CO323.4	ANALYSING	ANALYSE the Inspection and Survey Reports
CO323.5	EVALUATING	DETERMINE the Claim Amount in the Fire Insurance Claim
CO323.6	CREATING	DESIGN the Fire Insurance Policy on a hypothetical situation

1. **Understanding and Managing Risk** - Nature of Risk – Risk Analysis – Planning – Control - Mechanism for Transfer of risk Insurance and Reinsurance, Overview of Concepts of Insurance (briefly explain Insurable Interest - Indemnity - Uberrimae fidei - Proximate Cause - Subrogation and Contribution - Differentiation between Insurance and Guarantee - Insurance and Wager - Disclosure – Moral Hazards), Regulation of General Insurance Business in India, Types of General Insurance, key players in the General insurance market **(5+1)**
2. **Introduction to Fire Insurance:** Origin of Fire Insurance, Fire Insurance Policy, Scope of Fire Insurance, Purpose of Fire Insurance, Fire Insurance under Indian Insurance Law, Types of Fire Policies **(3+1)**
3. **Fire Hazards:** Introduction to General Fire Hazards, Exposure Hazard, Electrical Hazard, Fire and Explosion Hazard, Hazards of Dangerous Atmosphere and Metals, Fire Protection Systems, Fire Hazards of Specific Industries – Textile, Jute, Rubber, Paper, Chemical, Management and Housekeeping **(6+1)**
4. **Fire Underwriting and Procedures:** Introduction, Fire Insurance Underwriting, Fire Risk Assessment, Risk Assessment Process, Documents – Proposal Form, Risk Inspection Report, Tariff System, Standard Fire and Special Peril Policy, Terrorism Cover, Fire – Consequential Loss Insurance, Basis for Profit Insurance, Operative Clause of the Policy, Consequential Loss Insurance Premium Rate. **(7+1)**
5. **Fire Insurance Claims and Settlement:** Legal and procedural aspects of Fire Insurance Claim, Survey & Loss Assessment, Redressal Forums **(4+1)**

***Notes:**

Samples of the following Insurance Documents to be shown and discussed:

- a. Proposal Forms
- b. Policy Forms
- c. Cover Notes
- d. Certificates of Insurance
- e. Endorsements
- f. Renewal Notice

Suggested Textbooks:

1. Fire insurance underwriting (2005) , Venkataraman, Shushila, Insurance Institute of India Mumbai
2. Fire Insurance, William S. Hein & Company, Lester W. Zartman
3. Principles and Practice of Non-Life Insurance by P. K. Gupta, Himalaya
4. KSN Murthy and Dr. KVS Sarma: Modern law of Insurance in India (6th Ed), Lexis Nexis Butter Worths India
5. Fire insurance: theory and practice, Smith & Francis
6. Fire underwriting in theory and practice, George Hurren

7. Practical Aspect of Fire Insurance, Sudhir Kumar Jain, Sanjay Gupta

Suggested Reference Books:

1. Principles and Practice of General Insurance, Committee on Insurance and Pension, The Institute of Chartered Accountants of India,
2. Principles of Insurance Law, M. N. Srinivasan, Wadhwa & Co.,
3. Insurance Law and Practice, Vidhi Publication Private Limited, Rajiv Jain
4. Insurance Manual, Taxmann Publication Private Limited, Taxmann
5. Manual of insurance Laws, Bharat Publication Private limited, Bharat
6. Law of Insurance, Universal Publication Pvt. Limited, Dr. Avtar Singh
7. Principles of Risk Management and Insurance, George E. Rejda

Subject Core (SC) Courses - Semester IV
Specialization: Financial Management

Semester IV		403 FIN: Financial Laws	Course
3 Credit	LTP : 2:1:1	SUBJECT CORE (SC) COURSE: Specialization – Financial Management (FIN)	

Outcomes: On successful completion of the course the learner will be able to:

CO#	Cognitive Ability	Course Outcomes
CO403FIN .1	REMEMBERING	Define and Describe the basic concepts related to Financial Laws
CO403 FIN. 2	UNDERSTANDING	Illustrate the implications of various laws, Explain concepts and details of various financial laws.
CO403 FIN. 3	APPLYING	Make use of contextual financial laws applicable to organisations.
CO403 FIN. 4	ANALYZING	Infer the application of financial laws to organisations
CO403 FIN. 5	EVALUATING	Appraise and perceive the benefits of applicable laws to the organisations.
CO403 FIN.6	CREATING	CREATE debt restructuring portfolio/ proposal.

Unit Number	Contents	Number of Sessions
01	Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act, 2002: Meaning & Definition of Securitisation & Reconstruction, Formation of SARFAESI Act, 2002, SARFAESI Act 2002 - Need for the new law, Objectives , Scheme of the Act, Salient features, Incorporation & Registration of Special Purpose Companies, Funding of Securitisation, Assets Reconstruction, Enforcing Security Interest, Establishment of a Central Registry, Offences & Penalties, Boiler-plate Provisions Applicability, Exempted transactions, SARFAESI Process and Documentation.	8+1
02	Corporate Debt Restructuring and Strategic Debt restructuring: Meaning, Definition and Importance. CDR and GDR: difference, mechanism, Scheme, Debt Restructuring Process, Benefits, Corporate Financial Distress, Restructuring, and Bankruptcy	8+1
03	India Laws and Regulations Governing International Business Transactions: FERA/FEMA, Taxation of foreign income; Foreign investment	8+1
04	The Actuaries Act : Definition, Need, Importance, Objectives, Incorporation of Institute of Actuaries of India, Composition of council of institute, Functions of Council, Registration of Members, Appointment and Prosecution of Director, Constitution of Appellate authority, Appeal to authority, Penalty, Companies not to engage n actuarial practice, Quality Review Board: Establishment, functions, procedure, terms and conditions of chairperson and members of board	8+1
05	Insolvency & Bankruptcy code: Introduction, Concept of Insolvency and bankruptcy, Distinctive Features and Evaluation of the Code, Insolvency Resolution & liquidation process for corporate, Voluntary Liquidation of Corporate Person, Insolvency Resolution & Bankruptcy for Individuals & Partnership Firms, Adjudicating Authority under the Code, and Liability of Guarantors during the Corporate Insolvency Resolution Process.	8+1

Suggested Textbooks:

1. Guide to SARFAESI Act 2002 & Recovery of Debts and Bankruptcy Act 1993 (September 2016 Edition), Taxmann's Publication
2. Corporate Financial Distress, Restructuring and Bankruptcy By Edward L. Altman, Wiley Finance Series.
3. Corporate Restructuring by David Vange, Springer Publication

4. Transnational commercial law: International Instruments and Commentary, by Roy Goodey, Oxford Publication
5. Practical Guide on Foreign Trade Policy by Kalirajan D.
6. Achieving Your Pinnacle A Career Guide For Actuaries By Tom Miller
7. Indian Insurance Industry And The Appointed Actuary by Khan, Liyaquat; Sarma, K P & Gopal, ASI Publication
8. Guide to Insolvency and Bankruptcy Code (7th Edition 2019) by V.S. Datey, Taxmann's Publication
9. Insolvency and Bankruptcy Code 2016-As amended by Insolvency & Bankruptcy Code (Amendment) Ordinance 2019 (12th Edition 2020), Taxmann's Publication

Suggested Reference Book:

1. Handbook on Foreign Trade Policy 2015-2020
2. Actuaries' Survival Guide: How to Succeed in One of the Most Desirable Professions by Fred E Szabo
3. A handbook on Insolvency and Bankruptcy Code: A condensed guidebook for Directors and Executive Management by Ashish Makhija, IOD

Supplementary reading material:

1. The Securitization And Reconstruction Of Financial Assets And Enforcement Of Security Interest Act, 2002
2. The Actuaries Act, 2006

Magazines:

1. The Actuary India

websites:

1. <http://rbi.org.in>
2. www.taxmann.com

Semester IV		404 FIN Current Trends & Cases in Finance
3 Credits	LTP: 2:1:1	Subject Core (SC) Course – Financial Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO404FIN.1	REMEMBERING	DESCRIBE the concepts related to emerging areas of Microfinance, Small finance banks, Payment Banks, Start-Ups, SHG and Digitization and analytics
CO404FIN.2	UNDERSTANDING	EXPLAIN in detail, all the theoretical concepts taught through the syllabus
CO404FIN.3	APPLYING	APPLY the various theories and models of financial management in the case.
CO404FIN.4	ANALYSING	ANALYSE the situation and decide the key financial as well as non-financial elements involved in the situation.
CO404FIN.5	EVALUATING	EVALUATE the financial impact of the alternative on the given case.
CO404FIN.6	CREATING	CREATE financial models based on theories and concepts studied

1. **Microfinance** – Meaning, definition and conceptual framework and its history– Models of microfinance – Microcredit Vs Micro-savings Vs Microfinance – Microfinance institutions (MFI) Development of microfinance in India – GOI, RBI and NABARD initiatives for development of microfinance in India – Innovative microfinance models in India – Issues faced by microfinance in India – case study of SKS MFI and Grameen Bank. **Value chain financing – Rural finance** – need for rural finance – Chit fund finance and its regulation in India – Sharadha chit fund case study, Shadow banking.
2. **Small Finance Banks** – Operating guidelines of Reserve Bank of India for small finance banks – Small finance banks and financial inclusion – History and list of small finance banks –functions of small finance banks – Business model of small finance banks. **Self Help Group Approach:** The Concept, Why Self-Help Groups? – Objectives – Promotion, Group Dynamics in Growth of SHGs: Issues to be addressed – General Functioning Norms, What are the Books kept by a SHG? Best Empowerment Strategy, Networking of Self Help Groups; Institutionalization of Self Help Movement; Objectives and Functions of Networking – Credit Rating and Bank Linkage, Grading of Self Help Groups; Development of Rating Instrument – Linking of Self Help Group to Bank, Step-wise process of Operating of SHG

3. **Retail Banking:** Alternate delivery channels – Customer Relationship management vs. Customer Interaction management (CIM)-Technology as a differentiator- International Trends and Tools. **Payment banks** - Operating guidelines of Reserve Bank of India for payment banks –Payment banks and financial inclusion – History and list of payment banks – functions of payment banks – Business model of payment banks.
4. **Startups in India:** Fund raising norms for startups - SEBI regulations on startup listing and fund raising – Angel funding – Origin of angel funding – SEBI regulations on angel funding – Financial Technology –Fintech companies in India - Venture Capital, Seed Funding, Schemes Available for new startups by Government in the form of Finances
5. The case study will be based on Financial Management and Advance Financial Management Course syllabus.

Note: To facilitate understanding of the syllabus maximum relevant Cases should be incorporated in teaching pedagogy.

Text Books And Reference Books:

1. Buzzard, Shirley and Elaine Edgcomb. 1987. Monitoring and Evaluating Small Business Projects: A Step by Step Guide for Private Development Organizations. PACT, New York (an electronic copy of this book is posted at Blackboard).
2. Kindervatter, Suzanne. 1987. Doing a Feasibility Study: Training Activities for Starting or Reviewing a Small Business. OEF International, Washington, D.C. (an electronic copy of this book is posted at Blackboard).
3. Ledgerwood, Joanna. 2001. Microfinance Handbook: An Institutional and Financial Perspective. World Bank Publications, Washington, D.C.
4. Collins, Daryl, Jonathan Morduch, Stuart Rutherford and Orlanda Ruthven. 2009. Portfolios of the Poor: How the World's Poor Live on \$2 a Day. Princeton University Press, Princeton, New Jersey.
5. <https://www.rbi.org.in/>
6. <https://www.nabard.org/english/home.aspx>
7. <https://www.startupindia.gov.in/>

Supplementary Reading Material

1. Case Studies in Mergers & Acquisitions – ICAI University – ICAI University Press,
2. Case Studies on Mergers & Acquisitions – R. Muthukumar – ICAI University Press

List of Journals / Periodicals / Magazines / Newspapers / Web resources, etc.

1. Business Standard
2. The Economic Times
3. Financial Express
4. Journal of Applied Finance
5. CFA Reader
6. Business Today
7. Finance India

Subject Elective (SE) Courses - Semester IV
Specialization: Financial Management

Semester IV		409 FIN- Fixed Income Securities
2 Credit	LTP : 2:1:0	SUBJECT ELECTIVE (SE - IL)- Fixed Income Securities

Course Outcomes: On successful completion of the course the learner will be able to

CO#	Cognitive Ability	Course Outcomes
CO409FIN.1	REMEMBERING	Describing the basic concepts of Fixed Income Securities.
CO409FIN.2	UNDERSTANDING	Understanding the various types of securities traded in the fixed income market.
CO409FIN.3	APPLYING	Applying the knowledge of fixed income securities for diversifying the portfolio of investments.
CO409FIN.4	ANALYZING	Predictive analysis of the economic outlook through yield curve analysis.
CO409FIN.5	EVALUATING	Evaluate the risk and returns of different Fixed income securities.
CO409FIN.6	CREATING	Devise the various investment strategies based on portfolio returns.

Unit Number	Contents	Number of Sessions
01	Introduction of Fixed Income Security and its Markets: Securities, Fixed Income Instruments, Government Securities, Treasury Bills, Money Market Instruments, Corporate Bonds, and Asset Backed Securities, Market Conventions, Market Regulation and the Role of regulator. Sectoral Reforms and contemporary issues.	3+1
02	Returns, Valuation and Pricing of Fixed Income Securities : Current yield, Realized yield, Yield to maturity, Valuation & pricing of Plain Vanilla Bond on coupon date, Valuation & pricing of Plain Vanilla Bond in between coupon dates, Day Count Convention, Clean Price & Dirty Price, Valuation of a zero- coupon Bond, Valuation of Bond with Embedded option.	6+2
03	Risk Identification in Bonds- Volatility associated with Bond Market, Duration, Macaulay's Duration, Modified Duration, Effective Duration, Convexity, and Immunization	6+2
04	Investment Strategies for FI Securities: Optimizing Portfolio Returns, Laddered Maturity Portfolio, Barbell Investing, Matched Asset Program, Discount Bond Investing, Premium Bond Investing.	3+1
05	Yield Concepts and Term Structure Theories: Price Yield Relationship, Term Structure of Interest rates & Yield Curve, Shape of the yield curve, Term Structure Theories, Analysis of the Yield curve	5+1

Suggested Textbooks:

1. Investment Trends and Turning Points - Martin J. Pring.
2. Valuation, Risk Management and Portfolio Strategies (The Wiley Finance Series) – Lionel Martelline, Philippe Priaulet, Stephane Priaulet.
3. The Handbook of Fixed Income Securities - Frank J. Fabozzi, Steven V. Mann
4. Fixed Income Securities- Dr Varsha Nerlekar (Himalaya Publication)

Suggested Reference Book:

1. Choudhry, M. (2010). Introduction to Bond Markets. UK: John Wiley & Sons.
2. Fabozzi, F. J. (2016). Bond Markets, Analysis, and Strategies. USA: Pearson Education.
3. National Stock Exchange of India. (2009). FIMMDA-NSE Debt Market (Basic) Module. Mumbai: NSE.
4. Sen, J. & Apte, A. (2013). Fixed Income Markets in India: Investment Opportunities for You. India: Shroff Publishers & Distributors.

Semester IV		410 FIN – Business Valuation
2 Credits	LTP: 2:0:0	Subject Elective (SE) Course- Financial Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO410.1	REMEMBERING	RECALL concepts of value and valuation
CO410.2	UNDERSTANDING	EXPLAIN valuation process of business firms
CO410.3	APPLYING	CALCULATE business value using different techniques
CO410.4	ANALYSING	EXAMINE special factors to be considered in business valuation
CO410.5	EVALUATING	ASSESS the value of the firm in the light of business environment and regulatory aspects
CO410.6	CREATING	DESIGN a structured business valuation model for business.

- Overview of Valuation:** What is value; Differentiate price and value; Who values businesses; Purpose of a valuation; Principles of valuation; Definition of Standard of value (basis of valuation), Fair Market value, Fair value, Investment value, Intrinsic value; Premise of value- Going concern, Liquidation; Valuation process; Valuation standards (3)
- Business Valuation Methods:** Discounted Cash Flow Analysis (DCF); Comparable transactions method; Comparable Market Multiples method; Market Valuation; Free Cash Flow to Equity; Dividend Discount Model; Net Asset Valuation; Relative Valuation; Overview of Option Pricing Valuations (Numerical aspect of the methods should be discussed) (12)
- Business Valuation Methods 2:** Dividend Discount Model; Net Asset Valuation; Relative Valuation; Overview of Option Pricing Valuations (Numerical aspect of the methods should be discussed) (5+1)
- Advanced issues in Valuation:** Valuation of tangible assets; Valuation of intangible assets (Patents, trademarks, copyrights and licenses; Franchises; Brands etc.) (5+1)
- Valuation during Mergers & Acquisitions:** Merger and Acquisition Process, Regulatory Consideration, Due diligence and calculation of the value of the company, Criteria for selection of method (5+1)

Note: at least 2 Case studies with a detailed discussion on calculation of business valuation is expected

Suggested Textbooks:

- Corporate Value & Value Creation by Chandra and Prasanna, McGraw Hill
- The Little Book of Valuation: How to Value a Company, Pick a Stock and Profit – Aswath Damodaran
- Parks - Principles and Practice of Valuation – D.N. Banerjee
- Business Valuation, Text & Cases: Pitabas Mohanty, Taxmann
- Valuation Measuring and Managing the Value of Companies (Wiley Finance) – McKinsey & Co.

Suggested Reading:

- Valuation by Registered Valuers under Companies Act 2013 & Insolvency and Bankruptcy Code 2016 –
 - Kamal Garg
- Corporate Professionals Business Valuation in India – Beyond the Numbers (2018)
- Business Analysis and Valuation: Using Financial Statements, Text and Cases 3rd Edition by Krishna G. Palepu , Paul M. Healy ,Victor L Bernard

Semester III		411 FIN – Risk Management
2 Credit	LTP : 1:1:0	Subject Elective (SE) Course – Financial Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	Cognitive Ability	Course Outcomes
CO411FIN.1	Remembering	Describe various concept associated with risk management and financial risk management.
CO411FIN.2	Understanding	Exemplify the financial risk management processes, frameworks.
CO411FIN.3	Applying	Determine the various building blocks of risk management system and strategies.
CO411FIN.4	Analyzing	Classify various risks associated with enterprise, banks, insurance etc.
CO411FIN.5	Evaluating	Formulate the strategies to overcome with currency risk, credit risk, interest rate risk, legal risk, asset liability risk, liquidity risk etc.
CO411FIN.6	Creating	Formulate the strategies to manage currency risk, credit risk, interest rate risk, legal risk, asset liability risk, liquidity risk etc.

- Basics of Risk Management:** Definitions - Risk and uncertainty, Types, level & Impact of risk on organizations, Principles of risk management, Importance of risk management, Risk management process and framework. Financial Risk Management: Concept, Importance, Scope, Process of financial risk management. (3+3)
- Risk & Volatility Measurement:** Rate and price in determination of risk, Factors that impact financial rates and price: Interest rates, Foreign Exchange Rates, Commodity Price, Operational Risk; Market Data Analysis, Probability and distributions of asset prices, Modeling Risk Factors, concept and computation of Value-at-Risk, Calculating portfolio risk of more than one Assets. Historical simulation & multifactor VaR, Marginal and relative VaR. Different measures of volatility such as EWMA, ARCH & GARCH processes, volatility clusters and the issue of time varying volatility & issue of time aggregation. (3+3)
- Risk Management In Banking:** Risk management structure in bank, Credit risk, liquidity risk, interest rate risk, counterparty risk, market risk, environmental risk, currency risk, legal & regulatory risk, rating risk, pricing risk & capital allocation risk, loan review, NPA management, Basel committee norms for banking, Risk in investment banking, Financial risk management using derivatives and insurance. (3+3)
- Risk Management for Enterprise:** concept, scope, enterprise risk, approaches for corporate risk management, ERM, Types of enterprise risk: technology risk, business strategy risk, legal and regulatory risk, product liability risk. Risk Management In Insurance: Functions & Types of risk: Actuarial Risk, Asset liability risk, risk and capital, management of underwriting risks, investment risk, Investment management by insurers, investment risk management framework & policies. (3+3)
- Credit Risk Basics:** Probability of Default, Credit ratings & Transition Matrix analysis, Contingent claim approach and the KMV Model, Credit Risk Management and Credit VaR. Currency risk analysis: Currency risk analysis in global investing, interest rate parity (covered and uncovered), yen-carry trade syndrome, risk environment in Indian Forex markets, forwards and non- deliverable forwards, cross-currency risk analysis. (3+3)

Suggested Textbooks:

- Corporate Financial and Risk Management - Nersesian, Roy L. - Jaico Publishing House
- Financial Risk Management: A Practitioner's Guide to Managing Market and Credit Risk - Steve L. Allen
- Modern Corporate Risk Management: A Blueprint for Positive Change and Effectiveness by Koller

Suggested Reference Book:

- Investment Science. Luenberger, Oxford University Press, 1998
- Options, Futures and other Derivatives, John Hull, 7th Edition, Prentice Hall, 2008
- An Introduction to Market Risk Measurement by Dowd, Kevin, John Wiley & Sons.
- Risk Management and Financial Institutions by Hull, John C., Pearson, Prentice Hall, 2007 Measuring Market Risk by Dowd, Kevin, John Wiley & Sons, 2005. Value at Risk by Jorion, Philippe, McGraw Hill.
- Beyond Value at Risk, by Dowd, Kevin, John Wiley & Sons Mastering Value at Risk ,Butler, Cormac, Financial Times Prentice Hall Risk Takers, Marthinsen, John, Pearson Prentice Hall, 20096.

Semester IV		412 FIN–Strategic Cost Management
2 Credits	LTP: 1:1:1	Subject Elective (SE) Course – Financial Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO412FIN.1	REMEMBERING	Remember the basic concepts, tools and techniques of cost management in the contemporary business environment and how it has influenced cost management
CO412FIN.2	UNDERSTANDING	EXPLAIN in detail, all the theoretical concepts taught through the syllabus; differentiate between various costing techniques.
CO412FIN.3	APPLYING	ILLUSTRATE contemporary management techniques and how they are used in cost management to respond to the contemporary business environment.
CO412FIN.4	ANALYSING	ANALYSE the situation and decide the key cost factors / elements involved in the decision making
CO412FIN.5	EVALUATING	FORMULATE new models and techniques for managing the cost strategically in any business organization.
CO412FIN.6	CREATING	FORMULATE new models for managing the cost strategically for business organization.

- 1. Introduction to Strategic Cost Management:** Meaning, conceptual framework, significance and objectives of SCM, , Traditional Cost Management Vs Strategic Cost Management. Role of SCM in Strategic Positioning & Strategic position analysis, Cost Control and Cost Reduction in SCM, Cost of Quality **(5+1)**
- 2. Strategic Cost Analysis and Decision making in SCM:** Life Cycle costing, Target Costing, Value Analysis and Value Chain analysis, Value Engineering, Value management, Throughput Costing, Lean Accounting, Socio Economic Costing, Business Process Outsourcing (BPO) **(5+1)**
- 3. Activity Based Costing:** Concept, Purpose, Benefits and Stages, Relevance in Decision Making and its Application in Budgeting. Traditional Vs. ABC System – Comparative Analysis, Application of ABC. **(5+1)**
- 4. Strategic Cost Management for Specific Sectors:** Agricultural Sector, Information Technology Sector, Power Sector, Automobile Sector, Healthcare sector, Hospitality Sector, Education Sector, etc. **(5+1)**
- 5. Target Costing and Kaizen Costing:** Target Costing – Introduction, Key Principles, Methodology, Procedures, Advantages and Implementation. Kaizen Costing – Meaning, concepts, procedure for implementation, evaluation, benefits, challenges and standards. Target Costing v/s Kaizen Costing: Similarities and Differences. **(5+1)**

Suggested Text Books:

1. Strategic Cost Management – Dr. Jawahar Lal, Himalaya Publishing House.
2. Cost Management – Kishore Ravi M., Taxmann
3. Cost Accounting. Lal, Jawahar. Tata Mcgraw-Hill Pub. Co. Ltd.

Suggested Reference Books

1. Strategic Cost Management The New Tool for Competitive Advantage – John K. Shank & Vijay Govindrajan, The Free Press.
2. Cost Management A Strategic Emphasis – Edward Blocher, David Stout, Paul Juras & Steven Smith, McGraw Hill Education

SEM IV		413FIN -Rural and Micro Finance
2 Credits	LTP: 2:0:0	Subject Elective(SE) Course-Financial Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO413FIN.1	REMEMBERING	DEFINE the key concepts of Microfinance and other terms associated with rural and micro finance.
CO413FIN.2	UNDERSTANDING	EXPLAIN the relevance of Microfinance and how its work towards rural development.
CO413FIN.3	APPLYING	USE of micro finance, microfinance models and their contribution towards, Economic growth, poverty elimination, women empowerment and gender equality.
CO413FIN.4	ANALYSING	ANALYZE the linkage between MFIs and Rural development
CO413FIN.5	EVALUATING	EVALUATE the significance of the microfinance institutions & Self-Help Group for rural development
CO413FIN.6	CREATING	CREATE/DEVELOP models, cases and plans related to micro finance.

1.Overview of Microfinance: Background, Concept, Fundamentals of Microfinance, Characteristics of Micro Finance, Microfinance & Banking, The Grameen Bank, Microfinance & Micro Credit, Microfinance

1. NGOs, Channels of Microfinance, Microfinance & Rural Development- Role of MFIs and Rural credit, Types of rural Credit Poverty Microfinance and Economic Well-being ,Microfinance & Women

Empowerment, Financial Inclusion.

(6+1)

2.Microfinance Lending Models and its Financial & other Products: Microfinance Delivery Models and Banks Linkages Programme MFI Group Lending Model, MFI Individual Lending Model, MFI Loan Products & Related Issues, MFI Savings & Saving Products, Remittances, MFI Micro insurance.

(5+1)

3.Microfinance Service Providers and Microfinance Institutions: Governance and the Constitution of the Board of Various Forms of MFIs in India, Intermediaries for Microfinance, Commercialization of Microfinance Institutions, Challenges to Microfinance Institutions.

(4+1)

1. Microfinance & Self Help Groups: Meaning of SHGs, Pattern of their Functions-Funding Agencies of these SHGs-Provisions under SHGs- Savings, Credit, Marketing & Insurance, Financial & Social Inclusion through SHGs, SHGs and entrepreneurship development, NABARD and SHGs - SHGs & Bank Linkages - SHGs and Training Programmes, SHGs and Economic Empowerment, Role of SHGs in Poverty alleviation- Cases related to Indian Context.

(5+1)

5.Issues , Trends and Strategic alliances in Microfinance: Emerging issues in Microfinance, Recent Trends in Microfinance, Microfinance & Sustainable Development, Role of Technology in Microfinance,

Microfinance & Gender equality, Impact of Microfinance on Women empowerment.

(5+1)

Suggested Books:

1. Microfinance in India by K G Karmakar, March 2008Sage Publication Private Ltd.
2. Macro Dynamic of Micro Finance Daniel Lazar P. Natarajan MalabikaDeo Excels Books 2010
3. The Economics of Microfinance by Jonathan Morduch and Beatriz Armendariz
4. Micro Finance and Poverty eradication - Indian and global experiences Dr. Daniel Lazar Prof. P.Palanichany New Century Publication, New Delhi 2008
5. A.N.Agarwal and KundanaLal: - Rural Economy of India – Vikas publishing House Ltd. – New Delhi-110014, 1990
6. Vasant Desai- A Study of Rural Economy

7. Johns Hopkins School of Advanced International Studies: Microfinance and Development 1, taught by Elissa McCarter and Kate Druschel Griffin.
8. Rudradath and K.P.M.Sundaram-Indian Economy—S.Cand& Co. Limited, New Delhi110055, 2008
9. S.K.Mistra& V.K.Puri – Indian Economy- Himalaya Publishing House, Mumbai- 400004, 2008.

Semester III		414 FIN: Reinsurance
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Financial Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO414FIN.1	REMEMBERING	Remember the key Reinsurance terms and concepts.
CO414FIN.2	UNDERSTANDING	Understand the purpose of reinsurance, its types, parties involved in, legal framework and risk management.
CO414FIN.3	APPLYING	Apply the principles and practices of reinsurance to property, casualty, marine and aviation business.
CO414FIN.4	ANALYSING	Analyse different reinsurance methods applied to property, casualty, marine and aviation reinsurance.
CO414FIN.5	EVALUATING	Evaluate the different bases of cover including risks attaching, losses occurring, claims made and losses discovered.
CO414FIN.6	CREATING	Create or come up with the ability to think independently, identify and analyze reinsurance relations and take management decisions

- 1. Introduction to Reinsurance:** Nature of reinsurance – Analysis of factors that influence results – Historical background – Reinsurance in India before & after nationalization and liberalization – GIC – Reinsurance Markets - Types of markets, National markets, Buyers of reinsurance, Sellers of reinsurance, Reinsurance brokers , Services available from the market, The broking system compared with direct insurance **(3+1)**
- 2. Legal Principles and Practices of Reinsurance:** Introduction, The reinsurance needs of direct insurers, Forms and methods of placing reinsurances, Reinsurance practices and problems , The nature of reinsurance contracts , The law applicable to reinsurance contracts, The form of contract, Insurable interest , Utmost good faith, Indemnity, Construction of a reinsurance policy, Rights of the re-insured policyholders , Insolvency of the reinsured, Winding up and set-off Disputes between the parties, Conflict of laws, Reinsurance brokers **(7+1)**
- 3. Forms and Categories of Reinsurance :** Facultative Reinsurance, Treaty Reinsurance, Proportional Reinsurance, Non-proportional reinsurance, Quota share treaties, Surplus treaties, Facultative Obligatory treaties, Excess-of-loss Reinsurance, Excess-of-loss Reinsurance, Risk – attaching Reinsurance, Loss occurring coverage, Fire Reinsurance, Accident Reinsurance, Marine and aviation reinsurance, Life reinsurance **(7+1)**
- 4. Reinsurance Program and Risk Management:** Factors affecting reinsurance program, Procedure to be followed for Reinsurance Arrangements, Risk Management in Reinsurance – Alternative Risk Transfer (ART), Finite Reinsurance, Insurance Risk Securitization, Insurance Derivatives – Futures, Option, Swap **(3+1)**
- 5. Reinsurance Accounting and Management:** type of investment, relationship of assets and liabilities, evaluation of insurer’s security, insurer failure, financials regarding reserve deposits, payment of interest, allocation of capital, capital requirements for payment of liabilities, claim procedure, dispute resolution **(5+1)**

Suggested Text Books:

1. Reinsurance Simplified – Jagendra Rana, BlueRose Publishers
2. Reinsurance Accounts – K. L. Naik, published by The Insurance Times
3. Reinsurance : Principles and Practices – Gerathewohl, Klaus
4. Reinsurance for Beginners – Mohammed Sadullah Khan
5. Reinsurance : Fundamentals and New Challenges – Ruth Gastel

Suggested Reference Books

1. Understanding Reinsurance Treaty Slips – K. L. Naik, published by The Insurance Times
2. Reinsurance – R.L. Carter, L.D. Lucas, N. Ralph

Semester IV		415 FIN: Agricultural Insurance
2 Credits	LTP: 1:2:0	Subject Elective (SE) Course – Financial Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO415FIN.1	REMEMBERING	RECALL the different terms related to agriculture Insurance, crop insurance, livestock insurance, government schemes related to insurance.
CO415FIN.2	UNDERSTANDING	EXPLAIN the importance of agriculture insurance, crop insurance, livestock insurance and government schemes on agriculture.
CO415FIN.3	APPLYING	USE of the agricultural insurance in agricultural development.
CO415FIN.4	ANALYSING	ANALYSE the role of different regulatory mechanisms and government schemes in agricultural insurance
CO415FIN.5	EVALUATING	EVALUATE the different types of risks involved, in agriculture insurance in India and other countries
CO415FIN.6	CREATING	CREATE the business plan/model/proposal related agricultural insurance.

1. Introduction to Agriculture Insurance: Definition of Agriculture Insurance, Basic Concepts of Agricultural Insurance, Need for Rural/Agricultural Insurance, How should Government support in Agricultural Insurance, Classification of Agricultural Insurance Products, Problems and Prospects of Agriculture Insurance **(5+1)**

2. Risks in Agriculture and Crop Insurance – Risks in Agriculture -Changing face of Agricultural Risks in India –Climate change and Agriculture-Managing Agricultural Risks. Digital revolution in Agri-risk Insurance, Technological Revolution in Managing Crop Risk. **Crop Insurance** -Evolution of Crop Insurance in India-individual based crop insurance -Pilot Crop Insurance Scheme (PCIS)-Comprehensive Crop Insurance Scheme (CCIS)- Experimental Crop Insurance Scheme (ECIS)- National Agricultural Insurance Scheme (NAIS)-Farm Income Insurance Scheme (FIIS) **(5+1)**

3. Live- Stock Insurance and Poultry Insurance in India: History of cattle insurance, Cattle Insurance Policy, Livestock insurance schemes promoted by Central Government. Cattle Insurance Policy, - Loss assessment & settlement, Loss Minimization, Poultry Insurance: History of Poultry, Poultry Insurance Policy, Market Agreements underwriting, Loss Assessment & settlement, Loss Minimization **(5+1)**

4. Government Schemes: Pradhan Mantri Fasal Bima Yojana: Objectives, Highlights of the scheme, Farmers to be covered, Unit of Insurance, Coverage of Crops, Premium Rates Under PMFBY, Risks covered. **Modified National Agriculture Insurance Schemes:** Objectives, crops covered risks covered & exclusions, sum insured nature of coverage and indemnity. **Weather Based Crop Insurance Scheme:** Aim, Crops covered, Farmers covered, Perils covered. **(5+1)**

5. Global outlook: - Agriculture insurance in important countries (US, Canada, Spain, Japan, Italy, Sri Lanka, Mexico etc.), Role of global multi-Lateral financial institutions in promoting index based crop insurance scheme (World bank, World food program, etc.), IT/ ICT tools used for creating awareness about the insurance products ,Key challenges in Crop Loss Assessment, Technology Solutions, Unmanned Aerial Vehicles (UAVs) **(5+1)**

Suggested Textbooks:

1. Agriculture, Food Security & Rural Development, Asian Development Bank
2. Agriculture Risk & Insurance in India, Dr. S. S Raju & Dr. Ramesh Chand, NCAEPR, New Delhi, 2010, Books for Development, Bangalore
3. Adaptation to Climate Change and Insurance, Agricultural Insurance Training – Manual
4. Agricultural insurance (2006), K. N. Rao, Insurance Institute of India, Mumbai
5. Agriculture Insurance (2000), Poojari P.C., Insurance Institute of India, Mumbai
6. Agriculture Insurance (1994), Musafir, Rai

Suggested Reference Books

1. Government Support to Agricultural Insurance, Mahul, Olivier; Stutley, Charles
2. Agricultural Insurance Theory and Practice and Application to Developing Countries, P. K. Ray, Pergamon Press
3. Economics of Agricultural Crop Insurance: Theory and Evidence, Darrell L. Hueth University of Maryland
William H. Furtan University of Saskatchewan, Springer- Science + Business Media, LLC
4. Knowledge Paper Released at National Conference on Accelerating Agriculture Insurance, 2018, FICCI.

Subject Core (SC) Courses - Semester III
Specialization: Human Resource Management

Semester-III		304HRM- Strategic Human Resource Management
3 Credits	LTP: 2:1:1	Subject Core (SC) Course- Human Resource Management

Course Outcome: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO304HRM.1	REMEMBERING	REMEMBER the strategies adopted by HR and their implementation issues and challenges faced by the organization in national and international context.
CO304HRM.2	UNDERSTANDING	Ability to UNDERSTAND and ARTICULATE the basic concepts of SHRM and link the HR strategies to the organizational business strategies.
CO304HRM.3	APPLYING AND ANALYZING	Ability to ANALYZE HR as an investment to the company.
CO304HRM.4	EVALUATING	Ability to INTERPRET and EVALUATE the implementation of the HR strategies.
CO304HRM.5	CREATING	FORMULATE and provide realistic solutions to the industry by designing innovative strategies and logical decision making.

1. Introduction to Strategic Human Resource Management: Definition and objectives of SHRM, Evolution of SHRM, Strategic Fit, Types of HR strategies, Linking HR strategies to business strategies (7+1)

2. Components of SHRM: Human Capital management, Valuation of human resources in a strategic level, HR cost, Investments in HR, Formulation of HR strategies, Strategic HR vs traditional HR, HRM in knowledge economy, Challenges and issues in implementation of HR strategies in Indian context (9+1)

3. HR Planning as a strategy: Business Strategy & HRP, HRP process, Job Analysis, Forecasting and analyzing HR demand (qualitative and quantitative), Supply forecasting (external and internal), Comparison of demand and supply forecasting (8+1)

4. Specific HR strategies: Talent Management strategies, Career Planning and succession planning, Compensation and reward strategies, Employee engagement strategies (7+1)

5. Global Dimensions to HR strategy: SHRM in international context, Global competitive advantage, Issues and challenges in SHRM, cross cultural management- developing cross cultural sensitivity, OCTAPACE, Global business ethics (9+1)

Note:

1. Case study-based approach should be emphasized
2. Numerical approach in HR planning and HR valuation should be adopted.

Suggested Text Books:

1. Strategic Human Resource Management, (Agrawal, Tanuja), Oxford University Press
2. Strategic Human Resource Management- A General Managerial Approach, (Greer, Charles P.), Pearson Publications, Second Edition
3. Strategic Human Resource Management, (Mello, Jeffrey A.), Thomson Publications, Second Edition

Suggested Reference Books:

1. Human Resource Management- Text and Cases, (Pande, Sharan; Basak, Swapnalekha), Pearson Publication
2. Global Resource Management, (Bedi, S.P.S; Kishore, Minakshi), Wisdom Publications, 2007 Edition
3. International Human Resource Management, (Dowling, Peter J.; Welch, Denise E.), 4th Edition

Suggested Weblinks:

1. www.shrmindia.org
2. www.peoplematters.com

Journals:

1. Journal of Strategic Human Resource Management

2. International Journal of Human Resource Management
3. Human Resource Management Journal

Semester III		305HRM : HR Operations
3 Credits	LTP: 2:1:1	Subject Core (SC) Course – Human Resource Management

Course Outcomes: On successful completion of the course the learner will be able to:

CO#	COGNITIVE ABILITIES	COURSE OBJECTIVES (CO'S)
CO305HRM.1	REMEMBERING	Describe the functioning of personnel department
CO305HRM.2	UNDERSTANDING	Understand the communication of HR & Personnel department
CO305HRM.3	APPLYING	Apply the knowledge of various provisions under laws related to social Security and Labour welfare
CO305HRM.4	ANALYSING	Examine various compensation structure and disciplinary policies
CO305HRM.5	EVALUATING	Evaluate applicability of provisions of laws related to social security and labour welfare across various sectors
CO305HRM.6	CREATING	Design a salary structure incorporating all components of payroll system

1. **Human Resource Administration:** Definition, nature, scope, objective, structure of personnel department, personnel policy and its types, maintenance of personnel files and records, Drafting communication in personnel department – Appointment, promotion, transfer, deployment, appreciation letter, notices and circulars.
(7+2)
2. **Communications about disciplinary measures:** Drafting of memo, warning, show cause, charge sheet, suspension, Inquiry procedure correspondence, termination and dismissal, reinstatement in service. (4+1)
3. **Computation under Social Security Laws:** The Employee's Provident Fund and Miscellaneous Provisions Act, 1952 – Contribution, online procedure for opening of account and required documents, rate of contribution of Employer and Employee, administrative charges, interests and penalties, PF calculations and Forms, Amendments till date, The Employee's State Insurance Act, 1948 – Contributions, all 6 benefits, and calculations related to benefits, calculations for payment of compensation, applicability, Amendments till date (7+2)
4. **Compensation and Labour Welfare:** The Workmen's Compensation Act 1923 – Definition, Permanent, Partial, Total Disablement arising out of and in course of employment, theory of notional extension, calculation of compensation in case of death and disability, Amendments till date.
The Payment of Bonus Act, 1965 – Definition of Bonus, applicability, eligibility, minimum, maximum, Set- on and Set-off, disqualification of bonus, Amendments till date.
The Payment of Gratuity Act 1972 – Definition of Gratuity, applicability, eligibility, minimum service condition, maximum limit, calculation of gratuity in case of retirement, resignation, death and disablement. Amendments till date. (10+3)
5. **Components of Payroll System:** Maintenance of Statutory Returns – TDS, Profession tax, Form – 16 A and B, Form 26 AS, PF, ESI, Calculation of CTC and designing salary structure Income from salaries, deductions from salaries, meaning of salary for different purposes, perquisites, value of rent free accommodation (7+2)

Learning Resources:

Text Books:

1. Personnel Management – C B Mamoria
2. Dynamics of Personnel Administration – Rudrabaswaraj
3. Personnel Management – Edwin Flippo
4. Industrial and Labour Laws – S. P. Jain

5. Employee Relations Management-P N Singh, Pearson Publications
6. Dynamics of Industrial Relations–Mamoria & Mamoria
7. Industrial Relations: Emerging Paradigms, BD Singh, Excel Books, 2004 Edition

Reference Books:

1. Guide on Labour Management forms and precedents (Law, Practice and Procedure) – S D Puri (Snow white publication)
2. Introduction of Labour and Industrial Laws by Avatar Singh
3. Elements of Mercantile Law by N. D. Kapoor, Sultan Chand
4. Bare Acts
5. Elements of Mercantile Law-N. D Kapoor

Websites: www.managementstudyguide.com

Journals: Journal of Industrial Relation, Human Capital, Journal of HRM

Subject Elective (SE) Courses - Semester III
Specialization: Human Resource Management

Semester III		312HRM: Talent Management
2 Credits	LTP: 1:1:1	Subject Elective (SE) Course - Human Resource Management

Course Outcomes: On successful completion of the course the learner will be able to:

CO#	COGNITIVE ABILITIES	COURSE OBJECTIVES (CO'S)
CO.312.1	REMEMBERING	DEFINE Talent Management and its significance
CO.312.2	UNDERSTANDING	UNDERSTANDING performance excellence through Talent Management
CO.312.3	APPLYING	APPLY Talent Management concepts in Human Resource Management
CO.312.4	ANALYSING	ANALYSING Talent Management practices in employee development and career enhancement
CO.312.5	EVALUATING	FORMULATE the Talent Management Strategies for any organisation.

- 1. Talent Management:** Definition, Meaning of Talent Management, Objectives & Role of Talent Management in building sustainable competitive advantage to a firm, Key Processes of Talent Management, Consequences of Failure in Managing Talent, Benefits of Talent Management: How Your Business Can Benefit From it, Responsibilities of Talent Management Manager & Professionals **(6)**
- 2. Talent Management Planning:** Understanding the Needs and Mind set of Employee, Steps in Talent Management Process, Knowledge, Values, Beliefs and Skill Implications for Talent Management, Modelling Excellence **(6)**
- 3. Talent Acquisition:** Defining Talent Acquisition, Develop high potential employee - High performance workforce, Importance of Talent Development Process, Steps in Developing Talent, Succession Planning, Difference between Talent Acquisition and Recruitment, Current Trends in Talent Acquisition. **(6)**
- 4. Talent Retention:** "SMR Model" (Satisfy, Motivate and Reward) – The Formula to Win Your Employees & Retain Them, Employee Retention Programs, Career Planning & Development, Return on Investment (ROI) on Talent Management, Employee Engagement, Best Practices in Employee Retention. **(6)**
- 5. Opportunities and Challenges in Talent Management:** Talent Management Challenges, Strategies to Overcome the Challenges, Opportunities in Talent Management, Talent Management in the Digital Era, Current trends in Talent Management.
 Students in a group of 2-4 to study and submit spiral bound report on Talent Management Strategy in any organisation of their choice **(6)**

Suggested Text Books:

1. A Framework for Human Resource Management, Dessler Gary, Pearson, Edition: 7th
2. Fundamentals of Human Resource Management, Varkkey Biju, Dessler Gary, Pearson, Edition: 14th
3. Talent Management Hand Book, Lance A Berger, Dorothy R Berger, McGraw-Hill, Edition: 13th
4. Talent management in India: Challenges and opportunities, Hasan, M., Singh, A. K., Dhamija, Atlantic Publication,
5. A Handbook of Human Resource Management Practice, Armstrong, Michael, Kogan Page Publication
6. Human Resource Management, Pattanayak Biswajeet, PHI Learning Pvt. Ltd.

Suggested Reference Books:

1. Talent IQ, Emmet Murphy, Platinum Press,
2. Talent Management: Process of Developing & Integrating Skilled Workers, Shukla Ravinder, Global India Publications, 2009

3. Talent Management - Strategies for Success from Six Leading Companies by ASTD, ASTD, Cengage Learning
4. Strengths Based Recruitment and Development: A Practical Guide to Transforming Talent Management Strategy for Business Results., Sally Bibb
5. Talent Management, R.N. Misra, Discovery Publishing House Pvt. Ltd.

Websites:

1. <https://bookboon.com/en/talent-management-a-focus-on-excellence-ebook>
2. https://silversoft.co.za/wp-content/uploads/2016/05/Talent_Management_for_Dummies.pdf
3. <http://www.oracle.com/us/media1/talent-retention-6-best-practices-1676595.pdf>
4. <https://www.teleosconsulting.com/who-we-serve-and-how/our-unique-approach/strategic-talent-alignment-2/>

Semester III	313HRM : Psychometric testing and Assessment	
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course - Human Resource Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES (CO'S)
CO313.1	REMEMBERING	KNOW various tools of psychometry designed to measure traits of individuals
CO313.2	UNDERSTANDING	UNDERSTAND & Conduct the group simulated exercises for organizational purpose
CO313.3	APPLYING	IDENTIFY AND ADMINISTER psychometric tools to respondents
CO313.4	ANALYSING	INTERPRET results and counsel the respondent based on the results
CO313.5	CREATING	CREATE Psychometric Tests for the specific traits as required by the organization

1. Introduction: Psychological Assessment concept and definition ,Objectives & Purpose of Psychological Tests, Importance of Psychometric and Psychological Measurement. Social, Ethical and Legal Issues in Testing, Advantages and Limitations of Psychological Testing. Psychological Tests and its Characteristics – Standardization, Objectivity, Reliability, Validity, Norms. **(4+2)**

2. Different methods of assessment: Establishment of an Assessment or Testing Procedure for Industrial/Organizational Setting. Interview as Assessment Technique, Individual tests (personality and motivation tests, interpersonal tests, analytical tests, ability tests, knowledge tests), Individual exercises (case study, in-basket exercise, psychomotor exercises), Group exercises (group simulation exercises, role plays, group discussions, management games) **(2+4)**

3. Psychological Tests: Test Administration Perspective such as Computer Assisted Testing, Speed and Power Tests, Paper and Pencil Tests, Objective and Subjective Scoring. ASUFA test (Attribution of Success and Failure), MBTI (Myers and Briggs Type Indicator), Conflict Management test, Emotional Intelligence, Stress Management and Personality Traits Tests. Students should be able to administer the test, score the test and interpret the results of the test. **(2+6)**

4. FIRO-B test & Belbin team roles test: Theory, Administration and Interpretation of the tests. **(2+2)**

5. Conduction of Simulated exercises and management games: Prisoner's Dilemma- Simulated exercise based on game theory, Broken square game based on team building, individual versus group decision making simulated exercise, hollow square game for planning versus implementation. Students should be able to conduct the game and analyze & interpret the results. **(4+2)**

Suggested Reference Books:

1. Psychometric & assessment Tests by Andrea Shavick
2. Psychometric Tests For Dummies by Liam Healy
3. Psychometric Tests, Volume 1, Testing Series, The Times testing series edited by Mike Bryon
4. HRD instruments by Dr S W Deshpande
5. Training Instruments in HRD and OD by Udai Pareek, Surabhi Purohit
6. Organisational Behaviour, Fred Luthans 10th edi.
7. Organizational Behaviour by Stephen Robbins
8. Behavioural Exercises and Games; Manual for Trainers by Madhu Deshpande, Prayag Mehta, Manohar Nadkarni Publication Learning Systems

9. Psychological Testing by Anne Anastasi Susana Urbina**Links for online content:**

1. <https://www.psychestudy.com/social/weiner-attribution-theory>

Semester III		314 HRM : HR Perspectives in Mergers & Acquisitions
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Human Resource Management

Course Outcomes: On successful completion of the course the learner will be able to:

CO#	COGNITIVE ABILITIES	COURSE OBJECTIVES (CO'S)
CO314HRM.1	REMEMBERING	LIST conceptual framework of Mergers & Acquisitions and organization integration
CO314HRM.2	UNDERSTANDING	UNDERSTAND HR's role and due diligence process in Mergers & Acquisitions
CO314HRM.3	APPLYING	MANAGE/ SOLVE HR issues arising out during Mergers & Acquisitions
CO314HRM.4	ANALYSING	ORGANIZE HR due diligence before M & A
CO314HRM.5	EVALUATING	SUPPORT process of change management in M & A
CO314HRM.6	CREATING	FORMULATE HR processes for restructuring compensation and benefits in Mergers & Acquisitions

1. **Conceptual Framework:** Concepts of M&A, Organizational Growth through M&A, M&A in historical perspective, The Indian Scenario of M&A, An overview of HR contributions towards M&A, Govt. perspective / Legal requirements to be followed in Mergers and Acquisitions.
(4+2)
2. **Role of HR in Mergers and Acquisitions** Role of HR in Pre and Post Mergers and Acquisitions, Different Phases of Mergers and Acquisitions. HR's Role in doing Human Due diligence before initiating Mergers and Acquisitions.
(4+2)
3. **HR Issues in M&A:** Attracting and retaining high performers, Utilizing and managing excess manpower, Establishing of continuity and integration of culture, Managing insecurity and stress, Managing Workplace Diversity in Mergers and Acquisitions
(4+2)
4. **Restructuring HR processes in M&A:** Performance Management System Re-designing after Mergers, Re-looking into Compensation for balancing organizational systems and process, Benefits and Reward Management Practices restructuring after mergers and acquisitions
(4+2)
5. **Leveraging HR Competencies in M&A:** Managing Stress in Mergers and Acquisitions by learning stress management techniques, Managing Change in Mergers and Acquisitions by becoming a change agent, Acquiring HR Competencies for handling smooth transition of the organization during Mergers and Acquisitions
(4+2)

Learning Resources:**Text Books:**

1. Mergers, Acquisitions and Corporate Restructuring – Nishikant Jha – Himalaya Publishing House
2. Human Resource Management in Mergers and Acquisitions: Theories and Practices - by Dipak Kumar Bhattacharyya – Cengage Learning
3. Mergers, acquisitions and business valuations – Ravindhar Vadapalli – Excel Books

Semester III		315HRM : International HR
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course - Human Resource Management

Course Outcomes: On successful completion of the course the learner will be able to:

CO#	COGNITIVE ABILITIES	COURSE OBJECTIVES (CO'S)
CO315HRM.1	REMEMBERING	IDENTIFY key perspectives of global workforce management
CO315HRM.2	UNDERSTANDING	UNDERSTAND cultural aspects of International HRM
CO315HRM.3	APPLYING	PREPARE HR planning for long term global staffing
CO315HRM.4	ANALYSING	ILLUSTRATE steps involved in global selection of human resources
CO315HRM.5	EVALUATING	FORMULATE Training and development policy for expatriate employees of an organization
CO315HRM.6	CREATING	ANALYZE / COMPARE important points that needs to be included while drafting global workforce performance & development management system of an organization

1. Introduction and Overview of International HR: Global Market Context-Key Perspective in Global Workforce Management - Cultural Foundations of International Human Resource Management- Changes and challenges in the Global Labor Market- Globalization Technological Advancement- change in labour force Demographics and Migration-Emerging on the contingent workforce- Offshore sourcing- global workforce Management challenges, Concepts of Host Country Nationals HCN's, Parent Country Nationals PCN's and Third Country Nationals TCN's in International Business. **(4+2)**

2. The role of International HRM in Successful MNC: Knowledge Transfer-Global Leadership training and Development-Strategic Control Needs-Competitive strategy of Multinational corporations-Structuring for Optimal global Performances- Understanding culture-Major models of National Culture- Linking Human Resource management practices to Competitive Strategy and Organization Structure-Paradigm Shift of international Human Resource Management form contingency model to Process Development. **(4+2)**

3. Global Human Resource Planning: From strategy to Decision about work Demand and labour supply External Environment Scanning- Job Design for Meeting global Strategy work demand HR planning for the Long term-Global Staffing: General Actors Affecting Global Staffing-Global Recruitment of Human Resources-Global selection of Human Resources. **(4+2)**

4. Training and development of Global employees: Strategic role of Training and Development in the global Market Place- Fundamental concepts and principles for Guiding global Training and Development- Training imperative for the global workforce- Managing International Assignments- Expatriate Preparation, Foreign Assignment an Repatriation-International Assignments considerations for Special Expatriates-New and Flexible International Assignments. **(4+2)**

5. Global workforce performance Management: Performing Management Process-Important consideration for Global Performance Management-Planning and Implementing Global Performance Appraisal- Compensation for a Global workforce- Managing Compensation on a global Scale: Fundamental Practices-Key compensation for Expatriates, Host Country Nationals HCN's and Third Country Nationals TCN's – Global Employee Relations-current ER issues-Influence of MNC's and Union on Global ER. **(4+2)**

Suggested Readings:

- Charles M Vance and Yongsunpaik, Managing Global Work force, PHI, 2009
- Mark E.Mendenhall, Gary R.Oddou, Gunter K.Stahl, Reading and Cases in International Human Resource Management, Routledge, Fourth Edition, 2007
- Tony Edwards and Chris Rees: International Human Resource Management, Pearson, 2009
- Nilanjan Sengupta, Mousumi S. Bhattacharya, Excel Books, 2007

- Peter Dowling, International Human Resource Management: Managing People in a Multinational Context, 5e, Thomson, 2008
- K. Ashwathappa, Sadhna Dash, International Human Resource Management, Tata Mc Graw Hill, 2008
- S. K. Bhatia, International Human Resource Management, Deep & Deep Publications, 2005

Sem- III		316 HRM: Mentoring and Coaching
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course-Human Resource Management

Course Outcomes: At the end of this course the learner shall be able to –

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO316HRM.1	Remembering	ENUMERATE various concepts of Mentoring and Coaching.
CO316HRM.2	Understanding	UNDERSTAND techniques of Mentoring and Coaching
CO316HRM.3	Applying	APPLY models of Mentoring and Coaching to real world scenarios
CO316HRM.4	Analyzing	ANALYSE issues in Mentoring and Coaching
CO316HRM.5	Evaluating & Creating	DEVELOP skills needed to become Mentor, Coach

1 Foundation of Mentoring: Meaning of mentoring, Need and benefit of mentoring, Characteristics of effective mentor, Process of mentoring, Ethical issues, and barriers in mentoring (Personal, Organization, and Environmental), Creating coaching mentoring culture (4+2)

2 Foundation of Coaching: Meaning of coaching, Need and benefit of coaching, Principles of Coaching, Process of coaching, Difference between coaching and mentoring, Ethical issues and barriers to coaching (3+2)

3 Models and Approaches: GROW model, CLEAR and PRACTICE model, FUEL Model, Kolbs experiential learning model. Types of Mentoring-Partner model/one to one mentoring, Distance/Virtual mentoring, Group mentoring, Approaches to coaching- Cognitive behavioral coaching, solution and goal focused coaching, Narrative coaching, Alignment coaching, Positive psychology and strength coaching, systems coaching, life coaching. (5+2)

4 Skills and Techniques of Coaching and Mentoring: Core Skills- Trust, Rapport, Observation, Listening, Questioning, Supporting. Techniques- Building trust, Active listening, Asking open-ended questions, Effective goal-setting, encouraging an outcome focus, giving constructive feedback, Strengths-spotting. (4+2)

5 Practical Application/ Implementation: Mentoring and coaching related Mini project by a team of 2-4 students and Case studies related to Mentoring and Coaching in Manufacturing sector and Service sector. (4 cases) (4+2)

Suggested Text Books

1. Coaching & Mentoring by Jane Renton, Profile Books Ltd.
2. Coaching, Mentoring and Managing, A coach guidebook by Micki Holliday, The Career Press, Inc.
3. Coaching and Mentoring by Nigel MacLennan, Routledge
4. Coaching and Mentoring for Business by Grace McCarthy, Sage Publication
5. Techniques for Coaching and Mentoring by David Megginson & David Clutterbuck
6. 50 Activities for Coaching/Mentoring by Donna Berry, Charles Cadwell, Joe Fehrmann, HRD Press Inc

Reference Books:

1. Coaching and Mentoring, Harvard Business School Press
2. Making Mentoring Happen by Kathy Lace, Business & Professional Publishing Pvt. Ltd.
3. Coaching, Counseling & Mentoring by Florence M. Stone, AMACOM, 1601 Broadway, New York.
4. Coaching and Mentoring Theory and Practice by Robert Garvey, Paul Stokes, David Megginson, Sage Publication

Websites :

www.coachingnetwork.org.uk

<http://www.tobincls.com/mentoring.htm>

<http://www.coachingandmentoring.com/Articles/mentoring.html>

<https://positivepsychology.com/coaching-skills-techniques/>

<https://clevermemo.com/blog/en/effective-coaching-techniques/>

http://www.ufba.org.nz/images/documents/2015_UFBA_Workshop_Coaching_and_Mentoring_Skills.pdf

https://my.lerner.udel.edu/wpcontent/uploads/Skills_for_Successful_Mentoring.pdf

Semester III		317 HRM : Compensation and Reward Management
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course – Human Resource Management

Course Outcomes: On successful completion of the course the learner will be able to:

CO#	COGNITIVE ABILITIES	COURSE OBJECTIVES (CO'S)
CO317HRM.1	REMEMBERING	DESCRIBE concept of compensation and cost
CO317HRM.2	UNDERSTANDING	UNDERSTAND compensation and reward management process
CO317HRM.3	APPLYING	COMPARE issues related to compensation and survey of wages & salary administration in various industries
CO317HRM.4	ANALYSING	EXPERIMENT to calculate various types of monetary and profit sharing incentives
CO317HRM.5	EVALUATING	CALCULATE income tax as per the current slabs for the employees under different salary brackets
CO317HRM.6	CREATING	FORMULATE salary structure incorporating tax saving components.

1. Compensation, costs and systems: Concept of compensation and cost, advantages of fair compensation system, compensation policy, elements of cost, cost associated with personnel functions & causes of labour turnover. Direct & Indirect labour, cost control techniques, role of various departments & types of worker. Compensation and reward management process, components of remuneration, aspects of reward management and merits and demerits of various compensation systems. **(4+2)**

2. Wage and salary administration: Definition and concepts, wage surveys, components of wages, theories of wages, wage differentials, and executive compensation plans. Wage fixation methods and its norms, applicability as per various legislation and its provisions. Elements of management compensation, salary surveys, job evaluation & its objectives. **(4+2)**

3. Comparisons of compensation surveys in various industries:

Issues related to compensation and survey of wages & salary administration in manufacturing industry.

Issues related to compensation & survey of wages & salary administration in banking & service sector.

Issues related to compensation and survey of wages & salary administration in IT & ITES industry.

Issues related to compensation and survey of wages & salary administration in Infrastructure industry. **(4+2)**

4. Incentives, reward system & pay restructuring: Meaning and determinants of incentives, wage incentives, types & forms of profit sharing, non-monetary incentives & cafeteria-style compensation. Incentive calculation process, possible inputs and outputs of incentive process, preparation of payroll/wage sheets incorporating incentive payments, disbursement and internal checks, types of non-monitory incentives and rewards, retention bonus etc. designing salary structure for startup organizations incorporating rewards and incentives . **(4+2)**

5. Tax planning and payroll components: Income from salaries, deductions from salaries, meaning of salary for different purposes, perquisites, value of rent free accommodation. Tax planning and pay structure of today and tomorrow, compensation structure, role of compensation and rewards in modern organization, tax planning and payroll components, how to save income tax. **(4+2)**

Learning Resources:

Text Books:

1. Compensation & Reward Management, BD Singh, Excel Books
2. Compensation, Milkovich & Newman, Tata McGraw Hill

Reference Books:

1. Strategic Compensation, Joseph J. Martocchio, 3rd Edition, Pearson Education
2. Compensation Management in a Knowledge based world, Richard I. Anderson, 10th edition, Pearson Education
3. Compensation Management, Er Soni Shyam Singh, Excel Books.

Websites: www.vtu.ac.in

Semester		318 HRM : Performance Management System
2 Credits	LTP: 2:0:0	Subject Elective (SE)- Human Resource Management

Course Outcomes: On successful completion of the course the learner will be able to

CO #	COGNITIVE ABILITIES	COURSE OUTCOMES
CO318 HRM.1	REMEMBERING	DESCRIBE key components and applicability of theories of Performance Management System
CO318 HRM.2	UNDERSTANDING	DEMONSTRATE the communication skills required when managing achievement and underachievement.
CO318 HRM.3	APPLYING	IDENTIFY factors affecting Performance Measurement
CO318 HRM.4	ANALYSING	ANALYZE various tools for performance assessment
CO318 HRM.5	EVALUATING	COMPARE various organizational performance management systems and best practices.
CO318 HRM.6	CREATING	DESIGN a performance management process for an organization.

1. **Introduction and Theoretical Framework:** Dimensions of Performance, Performance Appraisal & Potential Appraisal, Methods of Performance Appraisal: Traditional, Modern Methods, Components of PMS. Performance Management: Planning Performance for Role Clarity, Accountability and Effectiveness. Goal Theory and its Application in Performance Management, Control Theory and its Application in Performance Management, Social Cognitive Theory and its Application in Performance Management. (6 +3).
2. **Process of Performance Management:** Overview and Importance of Performance Management Process, Performance Management planning process, Setting objectives - Organizational and individual performance plans - Components of Manager's performance and development plan - setting mutual expectations and performance criteria. Mid-cycle Review Process and End-cycle Review Process. (6 +3)
3. **Performance Measurement:** Determinants of performance measurement, performance dimensions, approaches to measuring performance, diagnosing the causes of poor performance, choosing a performance measurement approach. Measuring results and behaviours, gathering performance information, implementing performance management system. (5 +3).
4. **Performance Management & Reward Systems:** Performance linked remuneration system, Types of Rewards, Designing Reward System, Total Reward Strategies, Characteristics of an Effective Performance Reward Plan. Performance Analysis, Performance Review Discussion, Using Performance Management Systems Data for HR Decisions, Performance Improvements and Performance Management Skills. (6 +3)
5. **Performance Management and Personal Development Plans:** 360 degree feedback as a developmental tool, performance linked career planning & promotion policy, Competency Mapping as a Performance Management Tool, Balanced Scorecard and its Applications, Mentoring System, Assessment Centres, role of technology in PMS, Performance Management Practices Of Different Companies (One example of National and International Company each). (7 +3)

Suggested Text Books:

1. Performance Management: The New Realities by Michael Armstrong & Angela Baron, Jaico Publishing House, New Delhi, 2002
2. Appraising and Developing Managerial Performance by TV Rao Learning Systems Pvt. Limited, Excel Books, 2003
3. Performance Management, Systems and Strategies by Bhattacharyya, Dipak Kumar. 1/e; New Delhi: Pearson, 2011

Suggested Reference Books:

1. Corporate Performance Management by David Wade and Ronad Recardo, Butter Heinemann, New Delhi, 2002.

2. Performance Management by A.S. Kolhi & T. Deb,
3. Performance Management Systems by A.M. Sharma
4. Performance Management: Toward Organizational Excellence by T. V. Rao (2016)
5. Prem Chadha (2011). Performance Management, 1/e; New Delhi: McMillan
6. Henderson : Compensation Management in a Knowledge Based World 9/e Pearson Education.

Web links:

1. www.managementstudyguide.com
2. www.shrm.org
3. www.whatishumanresource.com
4. www.valamis.com
5. www.wayshrconsulting.com

Semester IV		319 HRM -: Change Management & new technologies in HRM
2 Credits	LTP: 1:1:1	Subject Elective (SE) Course - Human Resource Management

Course Outcomes: On successful completion of the course the learner will be able to:

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES (CO'S)
319HRM.1	REMEMBERING	DEFINE Change Management and its significance
319HRM.2	UNDERSTANDING	UNDERSTANDING change management model and practices
319HRM.3	APPLYING	APPLY Change Management in context to digital transformation
319HRM.4	ANALYSING & EVALUATING	EXAMINE and DETERMINE various concepts in human resource information system
319HRM.5	CREATING	IMPLEMENT change management in the organization.

1. Introduction to Change Management: Definition- change, how people experience change?, change as a natural process, Seven phases of change, types of change, importance and causes of change- social, economic, technological, organizational, Change Management Process , strategies to implement change in organization. **(5)**

2. Model of Change Management: ADKAR change management model, principle of change management, 7 R's of change management, challenges in change management, best practices in change management, how to adapt change during disaster. **(6)**

3. Change Management and Digital Transformation: Meaning - digital transformation, elements of digital transformation, stages of digital change management, management strategies for digital transformation, current trends in change management in context to digital transformation. **(6)**

4. Human Resource Information Systems: Information Security and Privacy in Human Resource Information Systems, The Future of Human Resource Information Systems: Emerging Trends in Human Resource Management and Information Technology **(7)**

5. Executing Change: Challenges of execution, Why does change Succeed / Fail? Minimum two case studies one each of successful execution and one of failure. **(6)**

Suggested Text Books:

1. Change Management by Andrew Pettigrew and Richard Whipp Infinity Books
2. Human Resource Information Systems- Basics, Application, Future and Direction by Dr. Michael Kavanagh and Dr. Mohan Thite
3. Suggested Reference Books:
4. Change and Knowledge Management by B. Janakiram, P. V. Ravendra, Shubha Murlidhar Published by biztantra
5. Change Management by Robert a Paton and James McCalman, Sage Publication, 3rd Edition
6. Human Resource Information System by P. K. Gupta and Sushil Chaabra.

Websites:

1. www.changedynamix.com
2. www.oursouthwest.com/SusBus/mggchange.html
3. <http://smallbusiness.chron.com/advantages-disadvantages-human-resourceinformation-system-2107.html>
4. www.cmswire.com/digital-workplace/change-management-the-key-to-successful-digital-transformations
5. www.a-connect.com/knowledge/change-management-in-times-of-disruption-and-digital-transformation

Journals:

1. Journal of Organizational Change Management
2. International Journal of Human Resource Management
3. International Journal of Human Resource Management
4. Human Resource Management Journal
5. Human Resource Management

Subject Core (SC) Courses - Semester IV
Specialization: Human Resource Management

Semester IV		403 HRM - Organizational Diagnosis & Development
Credits: 3	LTP: 2:1:1	Subject Core – Human Resource Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO404.1	REMEMBERING	DESCRIBE the major theories, concepts, terms, models tools and frameworks in the field of Organizational Diagnosis & Development.
CO404.2	UNDERSTANDING	UNDERSTAND concept of OD and 'intervention'.
CO404.3	APPLYING	MAKE USE of the Theories, Models, Principles and Frameworks of Organizational Diagnosis & Development in specific organizational settings.
CO404.4	ANALYSING	ANALYZE the external and internal environment with right tool of diagnosis and review the role of consultant in OD.
CO404.5	EVALUATING	IDENTIFY AND MAP an intervention to organisational need
CO404.6	CREATING	DESIGN the role of the consultant for an organisational issue

- Organisational Development** : Definition of Organisational Development, Evolution: Robert Tannenbaum, Kurt Lewin, McGregor, Herbert Shepard, Robert Blake, Foundation of OD- T-Group, System's theory, Parallel learning structure, double loop learning, Action Research. (5+2)
- Organisational diagnosis**- Six Box model and the Martin Weisbord's questionnaire, Porter's five forces model, PESTEL (Political, Economic, Social, Technological, Environmental, Legal) analysis of macro-environment. (4+2)
- Team interventions and Intergroup interventions**- Concept of intervention, types of interventions(team, intergroup, comprehensive, structural), Team Interventions: Formal group diagnostic meeting, formal group teambuilding meeting, process consultation, gestalt approach, Role analysis technique, role negotiation, interdependency exercise, appreciations and concerns, responsibility charting. Intergroup and third party peace-making interventions- Walton's approach, organisation mirror, partnering. (12+2)
- Comprehensive interventions and structural interventions**- Comprehensive interventions : Beckhard's confrontation meeting, survey feedback, appreciative inquiry, Grid OD. Structural interventions- socio-technical systems, work redesign, quality circles, re-engineering. (10+2)
- OD consultant**: Meaning, role and responsibilities, importance of an OD consultant. Client consultant relationship process and major challenges . (4+2)

Suggested Reference Books

- Organisation Development- French and Bell
- Organizational Diagnosis & Development – Dr. Anand Dadas & Dr. Rajendra Subnis (Himalaya Publications)
- Organisation Development and Change- Cummings and Worley
- Organisation Development-S. Ramanarayan, T.V. Rao, Kuldeep Singh.
- Competitive Strategy: Techniques for Analyzing Industries and Competitors- Michael E. Porter
- Strategic Management and Business Policy- C Appa Rao, B Parvathiswara Rao, K Sivaramakrishna

Semester – IV		404 HRM: Current Trends & Cases in Human Resource Management
3 Credits	LTP: 2:1:1	Subject Core (SC) Course –Human Resource Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO404HRM.1	REMEMBERING	DESCRIBE the conceptual framework of Digital Disruptions and its impact on the current HR Trends.
CO404HRM.2	UNDERSTANDING	SUMMARIZE the impact of Current HR trends on HR Functions
CO404HRM.3	APPLYING	ILLUSTRATE value creation & competitive advantage of Technology on current HR Trends

CO404HRM.4	ANALYSING	EXAMINE the changing role of HR Priorities
CO404HRM.5	EVALUATING	ELABORATE upon the various types of current HR Trends
CO404HRM.6	CREATING	APPLY the existing Tech tools to real time HRM Challenges and offer Solutions.

1. **Introduction and Concept of HR Trends:** Definition and Concept related to HR Trends, Comparative analysis of HR Trends since 2015, Causes of transformation and evolution in the HR Trends, Digital Disruptions and its impact on HR Trends. **(6+3)**
2. **Current HR Trends:** Technological Interventions in HR Processes and Management (Artificial Intelligence in Recruitment, Data Analytics in transforming HR, Employee Experience Platforms, Feedback Tools to improve Employee Engagement and Productivity, Employee Wellness Apps, Cloud and Mobile-enabled HR solutions) **(7+3)**
3. **Tectonic Shift in HRM Priorities** viz: Managing Workforce Diversity, Establishing Gender Parity and Pay Equality, Providing Mentorship, Assuring Safety at workplace, Catering to Employee expectations, Changing Skill requirements, Conducting Continuous Improvement Programs, Re-engineering work processes for improved productivity, Decentralizing work sites, and Promoting Family work life balance. **(6+3)**
4. **Enhancement of HR Functions through Current HR Trends:** Organisational Culture and Effectiveness, Employee Performance and Satisfaction, Human Resource Planning & Management, Recruitment & Selection, Performance Management System, Training & Development, Career / Succession Planning, Rewards & Recognitions, Employee Engagement, Health & Safety, Administrative Functions. **(5+3)**
5. **Cases in HRM: (5+3)**
 - a. Automation and Recruitment
 - b. Technology enabled Employee Training and Development
 - c. Employee Experience, Engagement and Evaluation through Technology
 - d. Digital Human Resource Planning & Management.
 - e. Tech Tools in Organisational Culture and Effectiveness.

Suggested Text Books:

1. Current Trends In Human Resource Management Paperback – July 5, 2017 Preeti Surkutwar (Author)
2. Future of Human Resource Management: Case Studies with Strategic Approach, Raman Preet
3. Digital India- Reflections and Practice, Editors: Kar, Arpan Kumar, Sinha, Shuchi, Gupta, M. P. (Eds.)

Suggested Reference Books:

1. Global Trends in Human Resource Management: A Twenty-Year Analysis 1st Edition, by Edward Lawler III (Author), John Boudreau
2. The Power of People: Learn How Successful Organizations Use Workforce Analytics to Improve Business Performance, By: Nigel Guenole, Jonathan Ferrar & Sheri Feinzig
3. HR from the Outside In: Six Competencies for the Future of Human Resources By: Dave Ulrich, Jon Younger, Wayne Brock-bank and Mike Ulrich
4. HR Disrupted: It's Time for Something Different, By: Lucy Adams
5. Fundamentals of Human Resource Management: People, Data, and Analytics Paperback – 24 January 2020 by Talya Bauer (Author), Berrin Erdogan (Author), David Caughlin (Author), Donald Truxillo (Author)

Suggested Websites:

1. <https://workology.com/4-hr-technology-trends-for-2050>
2. <https://www.researchgate.net>
3. <https://cdn2.hubspot.net/hubfs/3030863/Marketing%20Files/%5BMarketing%5D%20Collaterals/Multiple%20Pe%20%7C%20Multiple%20PL%20%7C%20Multiple%20UC%20%7C%20Awareness%20%7C%20eBook%20%7C%20HR%20Technology.pdf>
4. <https://www.i-scoop.eu/digital-transformation/hr-in-digital-transformation-2020>
5. <https://www2.deloitte.com/us/en/pages/tax/articles/impact-of-hr-trends-on-mobility-talent-and-reward.html>
6. <https://www.india-briefing.com/news/top-5-trends-indias-hr-industry-2020-19344.html>
7. <https://cio.economictimes.indiatimes.com/news/corporate-news/5-hr-trends-for-2020-and-beyond-technology-will-lead-and-transform/73754952>
8. <https://www.peoplesmatters.in/article/strategic-hr/the-future-of-hr-in-2020-24364>

9. <https://www.hrtechnologist.com/articles/digital-transformation/hr-and-cloud-computing-how-the-cloud-is-transforming-hr/>
10. <https://www.trustradius.com/buyer-blog/10-ways-cloud-hr-software-is-changing-the-way-hr-works>

Subject Elective (SE) Courses - Semester IV
Specialization: Human Resource Management

Semester IV		409 HRM: Labour Legislation
2 Credits	LTP : 0:3:1	Subject Elective (SE) Course – Human Resource Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	Cognitive Abilities	Course Outcomes
CO1	REMEMBERING	AWARENESS about foundation of labor legislation.
CO2	UNDERSTANDING	UNDERSTAND the legislation related to various labor and social laws.
CO3	APPLYING	APPLY formulas of specific laws and calculate.
CO4	ANALYSING	STUDY labor legislation and effective implementation of them through case laws.
CO5	EVALUATING	REVIEW AND UNDERSTAND different labor legislations and its amendments.

Unit 1: Introduction to Labour Legislation - Philosophy of Labour Laws, Labour Laws – Concept, Evolution and reign of labor laws, Objectives, classification of labor law, Process of law formation – from Bill to Act, Need, challenges & problems. International Labour Organization and International Labor Conference, Indian Constitution & Labour Legislations, Changing scenario of labour laws. (3+1)

Unit 2: Legislations Related to Wages and Compensation - The Payment of Wages Act 1936 – Definition, Responsibility for payment of wages, Fixation of wage period, Time of payment of wages, Deduction from wages, Maintenance of registers and records, Inspectors, claims and penalties.

Payment of Bonus Act, 1965 – Definitions: Accounting year, Allocable surplus, Available Surplus, Gross Profits; Computation of gross profit, Sums deductible from gross profit, Eligibility for bonus, Disqualification for bonus, Payment of Minimum and Maximum Bonus, Concept of Set-on and Set-off; Latest Amendment. (4+2)

Unit 3: Legislation Governing Industrial Relations - Industrial employment (Stranding Order) Act 1946 – Definitions: Appellate authority, Certifying officer, Standing Order; Submission, Certification, Registration of draft standing orders; Date of operation of draft standing orders; Duration and modification of standing orders. (4+2)

Unit 4: Legislation for Labour Welfare - Payment of Gratuity Act, 1972 – Definitions: Continuous Service, Family, Superannuation; Payment of gratuity; Nomination; Recovery; Penalty; Latest Amendment

Equal remuneration Act, 1976 – Definitions: Remuneration, Same work of similar nature; Payment of remuneration at equal rates to men and women workers and other matters; Duty of employers to maintain register; Inspectors; Offences . (4+2)

Unit 5: Legislation for Social Security - Employee's Provident Funds Miscellaneous Provisions Act, 1952 – Definitions: Basic wages, Contribution; Employees Provident Funds Scheme; Contribution by employer and employee, Modification of the scheme; Inspectors; Penalties

Note: Problems on Bonus, Gratuity, PF, ESI contributions should be conducted.

Suggested Text Books:

1. Industrial and Labour Law – S.P. Jain
2. Labor Law by Malik
3. Employee Relations Management by P.N. Singh, Neeraj Kumar, Pearson Publication

Suggested Reference Books:

1. Introduction of Labour and Industrial Laws by Avatar Singh
2. Industrial Relations, Trade Unions & Labour Legislation by P.R.N.Sinha, Indu Bala Sinha, Pearson Publication
3. Elements of Mercantile Law by N.D. Kapoor, Sultan Chand
4. Bare Acts

Supplementary reading material:

APS Labor Digest

Websites:

1. www.india-laws.com

2. <https://www.advocatekhoj.com/library/bareacts/>
3. <https://labour.gov.in/labour-law-reforms>
4. www.lawsinindia.com
5. www.ilo.org

Mobile Application:

1. India – Industrial and Labor Laws

Semester IV		410HRM : Designing HR Policies
2 Credits	LTP: 2:1:1	Subject Elective (SE) Course - Human Resource Management

Course Outcomes: On successful completion of the course the learner will be able to:

CO#	COGNITIVE ABILITIES	COURSE OBJECTIVES (CO'S)
CO.410HRM.1	REMEMBERING	IDENTIFY important points to be incorporated in HR Manual
CO.410HRM.2	UNDERSTANDING	UNDERSTAND policy requirement for Recruitment & Selection process
CO.410HRM.3	APPLYING	PREPARE policies on employee benefits for an organization of your choice
CO.410HRM.4	ANALYSING	ILLUSTRATE steps involved in better employee relations & grievance handling
CO.410HRM.5	CREATING	CONSTRUCT various HR policies for an organization of your choice

1. Introduction on the Content and Use of the Manual: Introduction of company (History, Vision, Mission, Organizational Hierarchy), Objectives and Significance of HR Policies, Right to change or discontinue, Statement of Commitment to Employees, Statement of Growth, Profit and Business plan, Employment Policies, Confidentiality of Company Information, Steps in Designing HR Policies. **(5)**

2. Recruitment and Hiring Policies: Policies for Manpower Planning, Employment Contracts/Bonds, Drafting different forms (Letters, Bonds, Contract Form, Interview Guideline Sheet, Checklist), Procedures in Administering Contracts, Wage / Salary and Benefits, Administration Policy, Rules relating to Wages / Salary and Legal Compliances, Compensation and other Benefit Policies. **(6)**

3. Employee Operational Policies: Monetary and Non-monetary benefits, Leave and vacation policy and administration with records, Policy for Employee Incurred Expenses and Reimbursement, Policy for Career Enhancement, Policy for Appraisals and Promotions, Policy for Succession Planning, Training and Development Corporate Policy, Training Contract, Training Evaluation (Related Forms). **(6)**

4. Conduct and Safety Policies: Employee Records and information (Profile, History of Employee i.e. Transfer, Promotion, Accountability, Performance, Upgradation of Skill etc.), Policy of Code of Conduct & Discipline and Rules & Administration Policies, Rules relating to company properties, Safety and Security Employee Grievances policies and procedure, Draft of Disciplinary action report, Related Provisions and Case Study (Any Grievance case). **(5)**

5. Field study/ Desk Research: Student are expected to design HR manual for any company and develop various statutory forms (Submit spiral bound copy as a project for 25 marks - Wherever Possible real time or for model organization) **(8)**

Suggested Text Books:

1. How to Develop Essential HR Policies and Procedures, by John H. McConnell Amacom, Div American Mgmt. Association, Volume 1 Human Resource Management, Deepak Bhattacharya, Sage Publishing Ltd.

2. Florida Employment Law Manual (HR Compliance Library) Paperback – Import, 22 Mar 2016 by Jennifer Saltz Bullock (Author), Jeff O'Connell (Editor)
3. The: An Indispensable Guide for Managers and Human Resources Professionals by S. Smith, R. Mazin
4. Human Resource Management: Gary Dessler
5. Guide on Labour & Human Resources, Management Forms & Precedents (Law Practice & Procedure), Snow White.
6. Human Resource Policies and Procedures for Nonprofit Organizations by Carol L. Barbeito, John Wiley & Sons, 2004.

Reference Books:

1. How to Develop Essential HR Policies and Procedures, by John H. McConnell Amacom, Div American Mgmt. Association, Volume 1
2. Guide on Labour & Human Resources, Management Forms & Precedents (Law Practice & Procedure), Snow white
3. Human Resource Policies and Procedures for Non-profit Organizations by Carol L. Barbeito, John Wiley & Sons, 2004

Websites:

5. http://www.chillibreeze.com/articles_various/HR-policies-in-India.asp.
6. <http://toostep.com/debate/are-hr-policies-of-indian-companies-employee-friendly>.
7. https://en.wikipedia.org/wiki/Human_resource_policies#Development,_human_resource_policies.pdf
8. <https://www.hrhelpboard.com/hr-policies.htm>
9. <https://vpsc.vic.gov.au/html-resources/how-positive-is-your-work-environment/6-human-resource-policies-and-strategies/>

Journals:

1. International Journal of Human Resource Management
2. Human Resource Management Journal

Semester IV	411: Labour Economics and Costing	
2 Credits	LTP: 0:3:1	Subject Elective – - Human Resource Management

Course Outcome: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO411.1	REMEMBERING	IDENTIFY the basic concepts of Labour Economics, Wage Determination, Labour Productivity and Costing.
CO411.2	UNDERSTANDING	UNDERSTANDING the Labour Markers in India with reference to demand and supply of Labour and Social Security Problems associated to it.
CO411.3	APPLICATION	DETERMINATION of various Wage and Non-Wage Factors applicable in various sectors of businesses.
CO411.4	ANALYSIS	IMPLEMENTATION of various theories of wage determination in various business sectors.
CO411.5	EVALUATION	EVALUATION of Labour Cost Benefit Analysis of important HR functions.
CO411.6	CREATION	APPLICATION of social security of labours in various sectors.

1. **Introduction Labour Economics:** Concept and Definition, Nature, Scope and Importance - Labour as a Unique Factor of Production - Labour Economics as a Branch of Economics - Interdisciplinary Character of Labour Economics, Rise of economic problems in Labour Management, Labour Market -Definitions, facts and trends. **(3)**
2. **Labour Demand and Supply** -Determinants of the Supply and Demand for Labour, Organized and Unorganized Labour, Demand and Supply for labour in Indian Markets, Labour Demand Elasticity- Own-wage elasticity of demand, Cross-wage elasticity of demand, Major issues of Indian labour market -Labour Absenteeism, Labour turnover, Labour Productivity, Labour Migration and mobility, Impact of technological change on Labour Markets, Globalisation and international labour demand outsourcing. **(5)**

3. **Wage Determination:** Classical, neo-classical and bargaining theories of wage determination, Modern theory of wage determination, Concepts of minimum wage, living wage and fair wage in theory and practice, Wage determination in various sectors - rural, urban, organized, unorganized and in informal sectors National wage policy, Wages and Wage Boards in India, Non-wage component of labour remuneration, Non-wage labour costs – factors and its relation with wage determination. (6)
4. **Concept of Labour Productivity & Costing** - Measurement and Importance of Labour Productivity & its Determinants ,Causes for Low Labour Productivity and Measures to Increased Labour Productivity, Productivity and the basis of yearly pay, Productivity and the level of pay, Productivity and the sequencing of pay, Costs -Various concepts, Elements of Labour cost – Fixed Pay and Variable pay. Various Statutory Requirements related to Cost of Labour, Cost Benefit Analysis of important HR functions, Labour turnover & productivity, Productivity and wage relationship, Cases related to labour cost calculation in Indian context. (6)
5. **Social Security of Labour:** Concept of Social Security and its evolution; Special problems of labour- Child Labour, Female Labour, Child labour policy, Problems and policy of female workers, Structure and achievement of labour union in India. Cases related to Issues of Social Security of labours in various sectors. (5)

Suggested Reference Books:

1. McConnell, C.R. and S.L.Brue (1986), Contemporary Labour Economics, McGraw-Hill, New York..
2. Reymonds L., Labour Economics & Labour Relations – Prentice Hall Inc., New Jerco.
3. Sadanand P Degaonkar , Labour Cost & Accounting, Everest Publishing House.
4. Jawahar Lal & Seema Srivastava, Cost Accounting, 4th Edition, Tata McGrew Hill Publishing Company Ltd, New Delhi
5. Jhabvala, R. and R.K. Subrahmanya (Eds.) (2000), The (Unorganised Sector Work Security and Social Protection, Sage Publications, New Delhi.
6. Suman Kalyan Chakrvarthy(2018), Labour Economics, Himalaya Publishing House Private Limited.

Suggested E books:

1. Labour Economics By Stephen W. Smith
2. Fundamentals of Labor Economics By Thomas Hyclak, Geraint Johnes, Robert
3. Handbook of Labor Economics, edited by Orley Ashenfelter, David Card

Online References:

1. <https://www.ilo.org/public/english/standards/relm/ilc/ilc89/pdf/rep-vi.pdf>
2. <https://pos.toasttab.com/blog/restaurant-labor-cost-percentage>
3. <https://www.accountingnotes.net/cost-accounting/labour-cost-cost-accounting/how-to-calculate-labour-cost-per-hour-per-unit-techniques-and-formula/16904>
4. <https://getsling.com/blog/labor-costs/>
5. <https://smallbusiness.chron.com/figure-out-direct-labor-cost-per-unit-76675.html>

Semester IV		412HRM : Best Practices In HRM
2 Credits	LTP: 1:1:1	Subject Elective (SE) Course - Human Resource Management

Course Outcomes: On successful completion of the course the learner will be able to:

CO#	COGNITIVE ABILITIES	COURSE OBJECTIVES (CO'S)
CO.412HRM.1	REMEMBERING	DEFINE dynamic approach towards Human Resource activities and practices.
CO.412HRM.2	UNDERSTANDING	EXPLAIN theoretical framework for best practices.
CO.412HRM.3	APPLYING	IDENTIFY & CLASSIFY the practices according to the industry and sub sectors of the industry.
CO.412HRM.4	ANALYSING & EVALUATING	COMPARE and DETERMINE various skill sets required at Human Resource Section.

CO.412HRM.5	CREATING	PLAN a survey of various industry and DEVELOP a trend analysis of Human Resource Best Practices.
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- 1. Introduction, Definition and Meaning of various concepts in Best Practices:** Defining various terminologies related to best practices. Define Generic, Idealistic, Realistic, and Green Practices in Human Resource Management. Define and evaluate the environment for the Best Practices. **(5)**
- 2. Introduction to Eightfold Path:** Eugene Bardach Theoretical Framework (policy analysis) for Best Practices. **Eightfold Path:** Define the problem-Assemble the evidence-Construct the alternatives-Select the criteria-Project the outcomes-Confront the trade-offs-Decide-Tell your story.
Describe Generic Vulnerabilities: poor general management capacity and weaknesses inherent to the practice itself. **(6)**
- 3. Identification and Classification of Best Practices:** Developing required knowledge and skills across the Human Resource Section. Classify the practices according to the industry and sub sectors of the industry. To Categorize and identify the inconsistent approach with reference to best practices in the Human Resource Sub Sections. **Cases on recent practices in HRM (6)**
- 4. Skill Development:** Introduction, Concept and Definition of Knowledge, Skill, Competency. Difference between knowledge-skill-competency. Highlight and enumerate various skill sets required for Developing Best Practices in Human Resource Sections across various industry. Importance of Skills in implementation of any practices. **(5)**
- 5. Construct** one mini projects in a group of 2-4 students on Emerging Trends and Best HR Practices in areas such as HR Procurement, Training and Skill Development, Reward & Recognition, All statutory provisions under the Factories Act 1948, Employee Engagement for any organizations. **(8)**

Suggested Reference Books:

6. A Practical Guide for Policy Analysis: The Eightfold Path to More Effective Problem Solving by Eugene Bardach
7. A handbook of Human Resource Management Practice by Michael Armstrong, Kogan Page
8. Handbook for Strategic HR: Best Practices in Organization Development from the OD Network by John Vogelsang, Maya Townsend, Matt Minahan et.al. Amacom Publishing
9. Developing Skills for Business Leadership by Gillian Watson, Stefanie Reissner. Second Edition Chartered Institute of Personnel Development

Supplementary Reading Material:

1. Human Resource Management: Best Practices at Marriott International - K Prashanth ... IBS2003
2. Framework for developing skill standards for workplace literacy.....Eunice N. Askov. Literacy Leader Fellowship Program Reports.

Websites:

1. www.digitalhrtech.com/human-resource-best-practices
2. www.process.st/hr-best-practices/
3. www.thehrpractice.in
4. www.hrmguide.in
5. www.business-standard.com

Journals:

1. International Journal of Human Resource Management.
2. Human Resource Management Journal
3. Human Resource Management

Semester IV	413: Employee Engagement and Ownership	
2 Credits	LTP: 1:1:1	Subject Elective – Human Resource Management

Course Outcome: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO413.1	REMEMBERING	IDENTIFY the basic concepts of Employee Engagement and Employee Ownership.
CO413.2	UNDERSTANDING	UNDERSTANDING the various factors, models and metrics involved in Employee engagement.
CO413.3	APPLICATION	DETERMINATION of various Employee Engagement Activities and types of Employee Ownership practiced in all scales of companies at various sectors.
CO413.4	ANALYSIS	IMPLEMENTATION of Engagement strategies and BUILDING Engagement Culture in companies.
CO413.5	EVALUATION	EVALUATION of Employee engagement and Employee Ownership and its impact on the performance of businesses
CO413.6	CREATION	APPLICATION of Employee engagement practices and Employee Ownership at various sectors of industry.

1. Employee Engagement: Concept and Evolution ,Definition, Need, Importance, factors of employee engagement, Creating Collective Vision Mission and Goal, , Advantages from Employee Engagement, Engagement Models – Fixed Price, Time Material, Dedicated Team, Building your own workspace model. (5+1)

2. Developing Employee Engagement- Understanding Self Determination Theory, Identifying employee engagement outcomes, Elements in designing Employee Engagement Activities -Creating Well-Defined Job Roles, Educating Employees for Engagement, Fostering Personal Connections, Communicating Objectives and Activities for Employee Engagement ,Levels of Engagement, Building Engagement-Engagement culture, Barriers to Employee Engagement - Ineffective Communication, Ineffective Leadership, Workplace frustration.(6+1)

3. Measuring Employee Engagement - Stages of Employee Engagement, Ways to measure Employee Engagement, Steps to measure Employee Engagement effectively, Critical Issues in measurement of Employee engagement, Myths about Employee Engagement, Metrics to measure Employee Engagement- Feedback from employees, Relationship with colleagues, Satisfaction & Happiness, Relationship with Leaders, Career Advancement, Rewards & Recognition, Goal Coalition, Welfare and Wellness, Employee as a Branding Agent.(5+1)

4. Employee Ownership – Significance of Employee Ownership, Traits of Employee Ownership, Impact of Employee Ownership, Relationship of Employee Ownership with Productivity, Organizational Commitment and Retention. (4+1)

5. Application of Employee Engagement – Through Job Design, Role Autonomy, Organizational Citizenship and Discretionary behavior, Desk Research of various Engagement initiatives and Tools to measure Employee engagement in various sectors, Develop and Design Employee Engagement Plan.(5+1)

Suggested Books:

1. Paul L. Marciano (2010), Carrots and Sticks Don't Work: Build a Culture of Employee Engagement with ... by , McGraw Hills.
2. Scott Carbonara (2013), Manager's Guide to Employee Engagement, McGraw Hills.
3. Emma Bridger (2018), Employee Engagement: A Practical Introduction, 2nd Edition, Kogan Page Limited.
4. Bob Kelleher (2014) , Employee Engagement For Dummies, John Wiley and sons Inc.
5. Robert Postlethwaite, Jeremy Gadd, The Employee Ownership Manual, Spiramus Press Ltd.

Online References:

1. <https://www.achievers.com/blog/8-elements-employee-engagement/>
2. <https://www.business2community.com/infographics/a-complete-guide-to-understanding-different-kinds-of-engagement-models-infographic-02156114>
3. <https://officevibe.com/employee-engagement-solution/guide>
4. <https://officevibe.com/blog/why-employee-engagement-is-hard-to-quantify>

5. <https://builtin.com/employee-engagement/how-to-measure-employee-engagement>
6. <https://snacknation.com/blog/measuring-employee-engagement/>
7. <https://www.zenefits.com/workest/how-small-businesses-give-employees-ownership/>

Semester IV		414HRM : Leadership and Succession Planning
2 Credits	LTP: 1:1:1	Subject Elective (SE) Course - Human Resource Management

Course Outcomes: On successful completion of the course the learner will be able to:

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES (CO'S)
CO.414HRM.1	REMEMBERING	IDENTIFY the basic concepts of leadership and succession planning.
CO.414HRM.2	UNDERSTANDING	UNDERSTANDING the modern theories and styles of leadership.
CO.414HRM.3	APPLYING	IMPLEMENTING the appropriate succession plan through leadership development
CO.414HRM.4	ANALYSING & EVALUATING	ANALYSING and EVALUATING the existing human capital.
CO.414HRM.5	CREATING	BUILDING appropriate Succession Plan required in an organization.

1. Leadership: Concept of Leadership, Styles of Leadership, Trait Approach, Contingency Leadership Approach, Contemporary Leadership, Meaning and significance of contemporary leadership, Concept of transformational leadership, Success stories of today's Global and Indian leaders **(5)**

2. Managing Succession: Need, Significance and Objectives of succession planning, The Succession Paradox, Resistance to succession planning - Employee and environmental factors, Establish a training process, Next-generation Attributes, Interests, and Abilities: Ingredients for responsible leadership, crafting the next-generation career plan, Incumbent generation leadership. **(5)**

3. Developing Leadership: Creating a vision, Analyse the strengths and weaknesses of an organisation, Organizational Design – Hierarchy and organigram , Developing the characteristics of leader - Trust, Integrity and Ethics, Power and Influence **(5)**

4. Developing Succession Plan: Prerequisites of Succession Planning, Process of Succession Planning -Identify Key Roles, Identify Competencies for Key roles, Conduct Organizational and Human Capital review, Develop Identified Human capital, Implementation of Succession and Knowledge Transfer Plans and Evaluate Effectiveness of Succession Planning, Challenges and Issues of Succession Planning. **(5)**

5. Application of Succession Planning: Case Study of Leadership related to Succession Planning, Students are expected to study minimum two leaders who set an example of succession planning. **(5)**

Suggested Text Books:

1. Organizational Behaviour by K Ashwathappa
2. Leadership Development Activities, John Adair, 2nd Edition Jaico Publication
3. Leadership Games, Stephen S Kogan, Response Books

Suggested Reference Books:

1. Understanding OB by Uday Pareek
2. The New Leaders, Daniel Goleman, Sphere Publications
3. The DNA of Leadership, Judith E Glaser, Platinum Press
4. The New Art of the Leader, William A Cohen, Viva Books
5. Strategic Leadership, John Adair, Kogan Page
6. Authentic Leadership, Warren Bennis, Wiley India Pvt. Ltd.
7. Leadership in the Era of Economic Uncertainty, Ram Charan, TMGH

8. 21 Leaders for the 21st Century, Fons Trompenaars & Charles Hampden – Turner, TMGH

Supplementary Reading Material:

1. Contemporary Leadership Theories: Enhancing the Understanding of the complexity, subjectivity and dynamic of leadership by Ingo Winkler
2. Organizational Performance in a Nutshell by Daniel M. Wentland

Websites:

1. <http://papers.ssrn.com>
2. <http://www.nwlink.com/~donclark/leader/leadob.html>

Journals:

1. Organizational Behavior and Human Decision processes
2. Journal of Organizational Behavior
3. Journal of Human Values International Studies of Management & Organization

Sem- III		HRM: e-HRM
2 Credits	LTP: 0:3:1	Subject Elective (SE) Course-Human Resource Management

Course Outcomes: At the end of this course the learner shall be able to –

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO316HRM.1	Remembering	ENUMERATE fundamental concept of HRIS
CO316HRM.2	Understanding	UNDERSTAND various technology driven features that can be adapted for HRM functions
CO316HRM.3	Applying	DETERMINE impact of technology on HRM functions.
CO316HRM.4	Analyzing	ANALYSE issues regarding technology in HRM functions.
CO316HRM.5	Evaluating & Creating	DEVELOP competencies needed to adapt technology in HRM functions

1 Foundation of Human Resource information system (HRIS): HRIS- Evolution, The Role of Information Technology, Database Concepts and Applications in Human Resource Information Systems, Systems Considerations in the Design of an HRIS: Planning for Implementation, security and privacy in HRIS, emerging trend/shift of HRIS to HRMS (4+2)

2 e-Talent Management: Introduction recruitment and technology, online recruitment objectives, recruitment strategies and social networking, selection test and assessment, technology issues in selection. (3+2)

3 e-Training: Introduction, Computer Based Training, Developing effective online learning, Blended learning, Simulations, Mobile technology and training methods, technology for training administration, technologies for training support, Learning management system , choosing new technology for training methods. (5+2)

4 e-Performance Management: Performance management and payroll- typical data inputs, reports, decision support. Compensation and benefit - typical data inputs, reports, and decision support. (4+2)

5: Practical applications: Cases - Videos related to HRMS, Case studies related to use of technology in various HRM functions ; problems and prospects of HRMS (5 cases) (4+2)

Suggested Text Books

1. Human Resource Information Systems-Basics, Application, Future and Direction by Michael Kavanagh and Mohan Thite, Richard D Johnson, Sage.
2. Training and Development, Raymond Noe Amitabh Kodwani Tata Mcgraw Hill
3. Human Resource Information System by P.K.Gupta and Sushil Chaabra

Reference Books:

1. e HRM : Digital Approaches Directions & Applications Dr. Mohan Thite, Routledge.

Subject Core (SC) Courses - Semester III
Specialization: Operations & Supply Chain Management

Semester III		304 OSCM- Services Operations Management – II
3 Credits	LTP: 2:1:1	Subject Core (SC) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO304OSCM .1	REMEMBERING	DEFINE the key concepts in Services Operations Management.
CO304OSCM .2	UNDERSTANDING	DIFFERENTIATE between various service strategies, service quality dimensions, and customer relationships based on life time value.
CO304OSCM .3	APPLYING	IDENTIFY the sources of value in a service supply relationship & three factors that drive profitability for a professional service firm
CO304OSCM .4	ANALYSING	CATEGORIZE a service firm according to its stage of competitiveness.
CO304OSCM .5	EVALUATING	MODIFY the Service strategies of an organization for achieving the strategic service vision.
CO304OSCM .6	CREATING	SOLVE the relevant numerical in the scope of the subject.

- Service Strategy:** Strategic Service Vision, Competitive Environment of Services, Competitive Service Strategies. Overall Cost Leadership, Differentiation & Focus approaches. Winning Customers in the Marketplace - Qualifiers, Service Winners & Service Losers. The Competitive Role of Information in Services. Creation of Barriers to Entry, Revenue Generation, Database Asset, Productivity Enhancement, The Virtual Value Chain, First Stage (New Processes), Second Stage (New Knowledge), Third Stage (New Products), Fourth Stage (New Relationships) . (7+2)
- Service Quality:** Defining Service Quality, Dimensions of Service Quality, Gaps in Service Quality, Measuring Service Quality, SERVQUAL. Quality Service by Design, Incorporation of Quality in the Service Package, Poka-Yoke (Fail-safe), Quality Function Deployment, Walk-Through Audit, Designing a Walk-Through Audit, The Walk-Through Audit as a Diagnostic Instrument. Cost of Quality, Unconditional Service Guarantee. Service Recovery, Approaches to Service Recovery, Complaint Handling Policy. Overview of Numerical on Control Chart for Variables (X-chart and R-chart), Control Chart for Attributes (p-chart). (7+2)
- Service Supply Relationships:** Supply Chain Management, Network Model, Managing Uncertainty, Service Supply Relationships, Customer-Supplier Duality, Service Supply Relationships Are Hubs, Not Chains, Service Capacity Is Analogous to Inventory, Customer Supplied Inputs, Managing Service Relationships, Bidirectional Optimization, Productive Capacity, Perishability. Professional Service Firms, Attributes of Professional Services, Operational Characteristics, Outsourcing Services, Benefits and Risks of Outsourcing Services, Classification of Business Services, Managerial Considerations with Service Outsourcing. (7+2)
- Service Design Principles:** Basics of Service Design , Holistic service design, service design and overall business change, Scope and flow of service design, Value to the business, Comprehensive and integrated service design, The four Ps, Service composition, Setting direction, policy and strategy for IT services, Optimizing design performance, Service design goals, Balanced design , Identifying service requirement , Designing measurement methods and metrics. (7+2)
- Customer in service industry:** Buyer characteristics, buyer decision-making process (EKB model), customer involvement in service process, customer behaviour in service settings. Relationship marketing, evolution of relationship marketing, degree of relationship building, the importance of customer retention, enhancement of internal and external relationship change. 7-S Framework, determining the value of customer, lifetime value of customer, customer relationship management strategies, customer delight and customer loyalty. Case study on Axis Bank. (7+2)

Suggested Text Books:

- Successful Service Operations Management, Metter, King–Mettters, Pulliman& Walton, Thomson India
- Services Business Management, Dr Abhay Kulkarni and Dr Sudhir Hasamnis, Himalaya Publication
- Services Marketing Operations and Management, Vinnie J Juhari, Kirti Dutta, Oxford University Press
- Service Management, Fitzsimmons and Fitzsimmons, Irwin/McGraw-Hill

Suggested Reference Books:

1. Service operations management - Improving service delivery, Robert Johnston, Graham Clark, Pearson Publication
2. Services Sector Management An Indian Perspective, C. Bhattacharjee
3. Baldrige – Just What the Doctor Ordered, Quality Progress, Nelson

Semester III		305 OSCM - Logistics Management
3 Credits	LTP: 2:1:1	Subject Core (SC) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO305OSCM.1	REMEMBERING	DEFINE basic terms and concepts related to Logistics management.
CO305OSCM.2	UNDERSTANDING	EXPLAIN the infrastructure of logistics, its linkage with various types of communication modes.
CO305OSCM.3	APPLYING	DESCRIBE the various dimensions of logistics management and transport, their inter-linkages with different types of freights.
CO305OSCM.4	ANALYSING	CALCULATE logistic costs and various classification methods of reducing the cost. Involving the information technology and its impacts.
CO305OSCM.5	EVALUATING	OUTLINE a typical logistic framework and services. ILLUSTRATE the linkages with its dynamic storage system / Customer Issues, Logistic and Business Issues in a real world context.
CO305OSCM.6	CREATING	DISCUSS modern real world logistical systems using the various concepts in the syllabus.

1. **The Principles of Logistics:** Definitions and Significance of Logistics. Logistical System of Services Elements of Logistics, Distinction between Procurement Logistics, Production Logistics and Distribution Logistics, Service Level, Logistics and Corporate Strategy, Supply Chains and Networks. (7+2)
2. **Logistics Systems:** Logistical Infrastructure, Basic Terminology, Types and Functions, Transport Infrastructure and Superstructure, Transport Routes and Transport Networks, Logistics Real Estate, Logistics Parks, and Freight Villages, Information Infrastructure and Communication Infrastructure, Telecommunication Infrastructure, Satellite Systems and Satellite Navigation. (8+2)
3. **Transport Systems and Logistics Services:** Transport Basics, Significance and Development, Modes of Transport and Transport Technologies, Transport Value and Transport Affinity, Road Freight Transport, Rail Freight Transport, Sea Freight Transport, Inland Waterway Transport, Air Freight Transports, Pipeline Transport. (8+2)
4. **Logistics Service Providers:** Carriers and Forwarders, Courier, Express Parcel and Mail Service Providers, Systems Service Providers and Contract Logistics Providers. IT in Logistics, Communication Standards, Identification Standards, Classification of IT in the Fields of Inventory and Warehousing. (7+2)
5. **Warehousing, Handling, and Picking Systems:** Warehousing, Handling, and Picking Systems, Warehousing Basics, Storage Facilities, Static Storage Systems, Dynamic Storage Systems, Conveyors, Discontinuous Conveyors, Continuous Conveyors, Sorters, Packages, Loading Units, and Load Carriers, Picking and Handling, Warehouse Organization, Inventory, Stock and Provisioning Management. (5+2)

Suggested Text Books:

1. Logistics, by Harald Gleissner and J Christian Femerling
2. Lean Supply Chain and Logistics Management, by Paul Myerson
3. Supply chain logistics management, By Bowersox

Suggested Reference Books:

1. Supply Chain Logistics Management, Donald Bowersox, David Closs, M Bixby Cooper, Tata McGraw Hill.
2. Introduction to Materials Management, J.R. Tony Arnold, Stephen Chapman, Ramakrishnan, Pearson.
3. Supply Chain and Logistics Management: Concepts, Methodologies, Tools, and Applications, by Information Resources Management Association, US.

Subject Elective (SE) Courses - Semester III
Specialization: Operations & Supply Chain Management

Semester III		312 OSCM- Manufacturing Resource Planning
2 Credits	LTP: 1:1:1	Subject Elective (SE) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO312OSCM.1	REMEMBERING	DEFINE basic terms and concepts related to MRP II.
CO312OSCM.2	UNDERSTANDING	DESCRIBE the integrated planning structure and functions incorporated within MRP.
CO312OSCM.3	APPLYING	ILLUSTRATE the importance of MRP as a top-management planning tool
CO312OSCM.4	ANALYSING	IDENTIFY the vertical and horizontal cross-functional integration within the MRP II planning hierarchy.
CO312OSCM.5	EVALUATING	EXPLAIN how what-if simulation, modeling, and analysis are used to produce feasible plans.
CO312OSCM.6	CREATING	DISCUSS how MRP supports the company's cost, quality, and delivery operating objectives.

- Master Production Scheduling (MPS):** Introduction to MPS, Need, objectives & functions of MPS, Role of MPS in management- as a “Link between strategic and tactical planning”. Logical flow of materials in different manufacturing scenarios (VAT Analysis), Planning horizons and Time periods (Buckets) of MPS, Order management in MPS, Safety and hedges, Projected Available Balance (PAB) and Available To Promise (ATP), Time Fences & effect of changing MPS decisions on time fences, Final Assembly Schedule (FAS). (5+1)
- Material Requirements Planning (MRP-I):** Introduction to MRP-I, Roles & functions of MRP-I, Independent & Dependent Demand, Bill of Materials (BOM), Types of BOM, Numerical Problems on BOM, Lot-sizing, MRP-I as Input & Output Process, MRP-I Spreadsheet problem, Pegging reports & where-used files. (5+1)
- Capacity Management:** Introduction to ‘Capacity’ and ‘Capacity management’, Capacity Expansion Strategies, Capacity Planning levels vis-à-vis Manufacturing planning levels, Capacity measurement, Rough Cut Capacity Planning (RCCP), Capacity Requirement Planning (CRP), Shop Calendar, Scheduling strategies- Backward & Forward scheduling, Infinite & Finite loading, Production smoothing policies. (5+1)
- Manufacturing Resource Planning (MRP-II)- (Module-I):** Introduction to MRPII, Roles & functions of MRP-II, MRP-II framework, Information flow in MRP-II, Relation of MRP-II with Demand management and Capacity management, Manufacturing calendar. (5+1)
- Manufacturing Resource Planning (MRP-II)- (Module-II):** Transition from MRP-I to MRP-II, Closed loop MRP, Comparison between MRP-I and MRP-II, Plant & supplier scheduling, Problems associated with MRP-II, Benefits and prospects of MRP-II, Compatibility between MRP-II & Just-in-Time (JIT). (5+1)

Suggested Text Books:

1. Manufacturing Resource Planning System, Mr. Oliver W.Wight
2. Manufacturing Resource Planning , Mr. Khalid Shaikh,
3. Manufacturing Resource Planning System, S. M. Emlerly

Suggested Reference Books:

1. Operations Management by Terry Hill, Palgrave
2. The fundamentals of Production Planning and Control by Stephen Chapman, Pearson

Semester III		313 OSCM- Sustainable Supply Chains
2 Credits	LTP: 2:0:0	Subject Elective (SE) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO313OSCM.1	REMEMBERING	ENUMERATE the key concepts of Sustainable Supply Chains and Sustainable Supply Chain Management.
CO313OSCM.2	UNDERSTANDING	DESCRIBE and DISCUSS the role and importance of sustainability and sustainable development in different types of supply chains.
CO313OSCM.3	APPLYING	IDENTIFY and USE relevant established and emerging principles, frameworks and theories in sustainable logistics and supply chain management.
CO313OSCM.4	ANALYSING	INTEGRATE fundamental strategies, tools and techniques to analyze and design environmentally sustainable supply chain systems.
CO313OSCM.5	EVALUATING	DETERMINE the unsustainable impact of logistics activities, both individual, and in the wider context of the supply chain.
CO313OSCM.6	CREATING	COMPILE the managerial challenges, and FORMULATE a structured solution to these, with clear implications for relevant stakeholders.

- 1. Introduction:** Sustainable Supply Chain Concept, Supply Chain Sustainability Management, Need, Business imperatives. Leveraging Connections of the Consumer, Brand, and Environmental Sustainability, Overview of Green Supply Chain, Concept of Green Logistics, Green Logistics – Rhetoric & reality, Key drivers for greening of Logistics & Supply Chains, Benefits of Green Supply Chains. (5+1)
- 2. Closed Loop Supply chains:** Natural resource Management, Global warming, environment legislation, Managing reverse logistics, recycling through lease and service agreements, Supply Chain Integration in View of Secondary Raw Materials, Sustainable supply chain products - from cradle to cradle. (5+1)
- 3. Environmental Costs of Logistics:** Arguments for and against internalizing environmental costs of logistics, Monetary calculation of environmental costs, Concept of Carbon Credits, Guidelines for carbon foot printing, Carbon foot printing process, success factors in carbon foot printing, Carbon Auditing of Supply Chains, Sustainable transportation, Greening transportation in the supply chain, Reverse channel design: Profitability VS Environmental benefits. New strategies to improve sustainability through supplier assessment. (6+1)
- 4. Monitoring Performance:** Measuring and Monitoring of Sustainable Supply Chain, Evaluating the impact of SC activities on Sustainability: Economic, Environmental and Social, Visible Supply Chain - Process, Product and Performance, Product oriented monitoring, Benefits and use of performance measurement, Problems with measuring performance, Stages of Supply Chain Performance Measurement. (5+1)
- 5. Sustainable purchasing and procurement:** The role of procurement in the supply chain, Drivers and barriers for sustainable procurement, Procurement frameworks, Ecolabels, Lifecycle assessment, Comparing purchasing options. Managing future supply chain, International Supply Chain Management and Collaboration Practices. (4+1)

Suggested Textbooks:

1. Strategy for Sustainability: A Business Manifesto by A. Werbach
2. Earth, Inc.: Using Nature's Rules to Build Sustainable Profits, G. Unruh
3. The Ecology of Commerce: A Declaration of Sustainability by P. Hawken, Harper Paperbacks
4. Greening of Industry Networks Studies, Behnam Fahimnia Michael G.H. BellDavid A. Hensher Joseph Sarkis Editors
Green Logistics and Transportation A Sustainable Supply Chain Perspective
5. Environmental Issues in Logistics and Manufacturing Series editor Eco Production. Paulina Golinska, Poznan, Poland.

Suggested Reference Books:

1. Sustainable Logistics and Supply Chain Management: David B Grant, Alexander Trautrim and Chee Yew Wong
2. Logistics Operations, Supply Chain Management and Sustainability: Paulina Golinska
3. Sustainable Fashion Supply Chain Management: From Sourcing to Retailing, edited by Tsan-Ming Choi, T. C. Edwin Cheng

Semester III		314 OSCM- Business Excellence
2 Credits	LTP: 2:0:0	Subject Elective (SE) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO314OSCM.1	REMEMBERING	REPRODUCE the essential tenets of Business Excellence in organizations with special emphasis on Operations Excellence
CO314OSCM.2	UNDERSTANDING	EXPLAIN the basic principles of various models of Business Excellence.
CO314OSCM.3	APPLYING	MAKE USE OF the concepts, tools and techniques of Business Excellence in the various areas of Operations, Supply Chain and Services
CO314OSCM.4	ANALYSING	ILLUSTRATE the various facets of development, implementation and assessment of business excellence
CO314OSCM.5	EVALUATING	FORMULATE a managerial perspective and DEVELOP an informed decision-making ability for driving Business Excellence in the various areas of Operations, Supply Chain and Services
CO314OSCM.6	CREATING	DISCUSS what makes some organizations best-in-class organizations.

- Business Excellence:** Business Excellence – Concept & Need. Fundamental concepts, European Foundation for Quality Management (EFQM), Malcolm Baldrige National Quality (MBNQA) framework, Deming Award, Indian BE Models such as Tata Business Excellence Model, Golden Peacock Award by the Institute of Directors (IOD), CII-EXIM Bank Award for Business Excellence, Rajiv Gandhi National Quality Award (RGNQA), etc, Core Values and Concepts, TQM Vs Business Excellence, Paradigm Shift. (5+1)
- Leadership triad:** Leadership, Strategy and Customers, Role of Senior Leadership and communication, Vision, Mission and Values, Organizational Governance, Strategy - Strategy development and deployment process, Tools and Techniques for strategy development and deployment - Hoshin Kanri, BSC, etc. Customers – Voice of Customer, current and potential customers, Customer Satisfaction and Engagement, Product and Service Offerings. (5+1)
- Results triad:** People, Operations and Results, Results flowing from all areas of organization, Measurement, Analysis, and Knowledge Management, Overall Performance Management. (5+1)
- Assessment:** Assessment of organizations based on BE Models and guidelines, developing assessors, Factors in assessment, scoring bands, global scale for comparison. (5+1)
- Comparisons and Benchmarking:** Benchmarking within organization, across the BUs and sister organizations, benchmark grid, benchmarking with competitors and global benchmarks. (5+1)

Suggested Textbooks:

- The Business of Excellence: Building High-performance Teams and Organizations by Justin Hughes, Bloomsbury Publishing.
- Achieving Class A Business Excellence: An Executive's Perspective by Dennis Groves, Kevin Herbert and Jim Correll, Wiley Publications
- Design for Operational Excellence: A Breakthrough Strategy for Business Growth by Kevin J. Duggan, McGraw-Hill Education
- From Quality to Business Excellence: A Systems Approach to Management by Charles G. Cobb, ASQ PR
- Business Excellence through Process Management by Manik Kher, VIVA BOOKS

Suggested Reference Books:

- Achieving Business Excellence by Pravin Rajpal, Om Books International
- Creating a Lean Culture: Tools to Sustain Lean Conversions by David Mann, CRC Press
- Measuring Business Excellence, Routledge Advances in Management and Business Studies Book
- EFQM, MBNQA, RGNQA Guidelines
- 54 Tools and Techniques for Business Excellence by Michael Wash, Management Books

Semester III		315 OSCM- Toyota Production System
2 Credits	LTP: 2:0:0	Subject Elective (SE) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO315OSCM.1	REMEMBERING	DESCRIBE 14 principles of the Toyota Way.
CO315OSCM.2	UNDERSTANDING	RELATE the TPS with other business situations.
CO315OSCM.3	APPLYING	IMPLEMENT TPS principles to a real-life situation.
CO315OSCM.4	ANALYSING	EXAMINE the application of TPS principles in a service or manufacturing unit/ organization.
CO315OSCM.5	EVALUATING	DESIGN a process for executing Improvement Initiatives at workplace.
CO315OSCM.6	CREATING	BUILD an organization culture to foster continuous improvement.

- The Toyota Way:** Using Operational Excellence as a Strategic Weapon. Toyota Production System Vs Lean Production, what does it actually mean by getting Lean, The Heart of the Toyota Production System - Eliminating Waste, The TPS House Diagram (5+1)
- The 14 Principles of the Toyota Way:** An executive summary of the culture behind TPS, Toyota Way in action, Long Term Philosophy, creating continuous process flow, Pull system to avoid over production. (5+1)
- Leveling Workload (Heijunka), Getting quality right the first time, Standardization of the task, Use of Visual Control, Use of reliable technology. (5+1)
- Leadership:** Role of Leaders in Manufacturing Philosophy, Development of Exceptional Teams, Challenging and respecting extended networks, see yourself to understand the situation, Developing decisions with consensus. (5+1)
- Organizational Aspects:** Become a learning organization, Continuous Improvement, Using the Toyota Way to transform organizations, Lean Manufacturing, Lean, Agile and Sustainable Manufacturing. (5+1)

Suggested Text Books:

- The Toyota Way: 14 Management Principles from the World's Greatest Manufacturer by Jeffrey K. Liker McGraw-Hill

Suggested Reference Books:

- The Toyota Kaizen Continuum: A Practical Guide to Implementing Lean by John Stewart , Taylor and Francis Group
- The Toyota Way Field book A Practical Guide for Implementing Toyota's 4 Ps by Jeffrey K. Liker and David Meier, Tata McGraw-Hill Edition

Semester III		316OSCM- Operations & Service Strategy
2 Credits	LTP: 2:0:0	Subject Elective (SE) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO316OSCM.1	REMEMBERING	ENUMERATE the key components of operations strategy.
CO316OSCM.2	UNDERSTANDING	EXPLAIN the linkages between operations strategy and competitive advantage as the basis of competitive position through superior product development, cost, quality, features.
CO316OSCM.3	APPLYING	ILLUSTRATE the broader context of business strategy & fit between manufacturing and operations capabilities and the business strategy
CO316OSCM.4	ANALYSING	EXAMINE the concepts of competitive leverage using manufacturing and operations, the fit of the various elements of manufacturing and operations, the impact of the competitive environment, and the structure of the value chain.
CO316OSCM.5	EVALUATING	DESIGN the operations and service strategy.
CO316OSCM.6	CREATING	FORMULATE an operations strategy (long-term plan) and link with operational decisions.

- Operations Strategy:** Introduction, Relationship Between business grand strategies & the operations strategy, Strategic issues in manufacturing / operations, Elements of Operations Strategy, Competing through operations. Operation strategy in global economy, Changing nature of business, Quality, Customer service and cost challenges and social responsibility, Current perspective-Strategic fit (5+1)
- Methodology for Developing Operations Strategy:** Value as business concept, Strategy- Formulation Process.– Value Chain concept , Focus, core competence and distinctive capabilities, stake holders & strategy, Checking markets, Outcome of Market debate – Linking manufacturing to Markets – strategic integration – why products sell in the markets – Order Winners, Order Qualifiers. Lean systems-Eliminating waste.
- Operation Strategy Implementation:** Technology strategy Issues in New Product development Time to market – strategic nature of process– Business implication of Process choice – Hybrid Process. Change management and Sustainability Procedure – company or plant-based profiles – decisions for product reallocation – downsizing – Capacity decisions Progression & Regression (5+1)
- Strategic Resource Management:** Importance, issues involved – organizational issues operational approaches to improving, delivery system, controlling operations – key performance Indicators, PQCDMS (Productivity, Quality, Cost, Delivery Time, Safety, Morale)
- Service Strategy:** Introduction, The service opportunity, Service growth- How to grow in service, Service Focus Strategy, Design an Effective service organization, Service Supply Chain, Service Pricing, Service Innovation. (5+1)

Suggested Text Books:

- Operations Management Theory & Practice – B. Mahadevan - Pearson
- Operations Now by Byron Finch, TMGH
- Operations Research – by Nita Shah, Ravi Gor, Hardik Soni- Prentice Hall India

Suggested Reference Books:

- Operations Management by Norman Gaither, Greig Fraizer, Cengage Learning, India Ed.
- Operations Management by Terry Hill, Palgrave

Semester III		317 OSCM- Six Sigma for Operations
2 Credits	LTP: 2:0:0	Subject Elective (SE) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO317OSCM.1	REMEMBERING	DESCRIBE the Key Concepts and Definitions associated with Quality Management, Six Sigma and Process of Six Sigma
CO317OSCM.2	UNDERSTANDING	SUMMARIZE the six-sigma philosophy along with understanding of 7 QC Tools.
CO317OSCM.3	APPLYING	PREDICT the change due to Six Sigma Implementation and Application of Six Sigma tools in new settings
CO317OSCM.4	ANALYSING	APPRECIATE use of Six Sigma for services performance improvement and strengthening the Organizational Structures
CO317OSCM.5	EVALUATING	DECIDE control chart to use for given set of data and ROSS (Return on Six Sigma)
CO317OSCM.6	CREATING	CREATING a Case for Business Models in Different Industries/Proposing a Strategy by Studying the cases of Successful Six Sigma Implementation

- Introduction to Lean Six Sigma:** History of Quality (Key Concepts by Quality Guru- Deming, Juran, Crosby, Ishikawa, Taguchi etc.), History of Continuous Improvement, Evolution of Six Sigma, Defining Six Sigma – philosophy and objectives, Six Sigma Principles and Focus Area, Value of Six Sigma. DMAIC Process
- DEFINE and MEASURE PHASE: DEFINE** - Six Sigma Project Identification, Selection and Definition, Project Charter and Monitoring, Process characteristics and analysis, Process Mapping: SIPOC- Suppliers – Inputs – Process – Outputs – Customers. **MEASURE** - Data Collection and Summarization, Measurement systems: Fundamentals, Accuracy, Precision, Discrimination, R&R Studies, Linearity, Process Stability, Fundamentals of statistics: Probability theory. Process capability analysis: Key Concepts, Measures and Indices, Non-normal process capability analysis, (5+1)

3. **ANALYZE and IMPROVE PHASE: ANALYZE** - Hypothesis testing: Fundamentals, Single Population Test, Two Population Test. Correlation and Regression Analysis, Regression Analysis: Model Validation. Introduction to One-Way ANOVA, Two-Way ANOVA, Multi-vari Analysis, Failure Mode Effect Analysis (FMEA) **IMPROVE** - Introduction to Design of Experiment, Randomized Block Design, Factorial Design, Fractional Factorial Design, Taguchi Method: Key Concepts and Illustrative Application. (5+1)
4. **CONTROL PHASE:** Seven QC Tools, Statistical Process Control: Key Concepts, Control Charts for Variables, Operating Characteristic (OC) Curve for Variable Control charts. Statistical Process Control: Control Charts for Attributes, Operating Characteristic (OC) Curve for Attribute Control charts. Acceptance Sampling: Key Concepts, Design of Acceptance Sampling Plans for Attributes, Design of Acceptance Sampling Plans for Variables, Return on Six Sigma – ROSS. (5+1)
5. **Six Sigma Implementation Challenges:** Design for Six Sigma (DFSS): DMADV, DMADOV, DFX Six Sigma Team Management: Composition and Layers, Six Sigma: Case study and Applications, Overview of Lean Six Sigma, Critical Success Factors in Implementation of Six Sigma. (5+1)

Suggested Text Books:

1. Daniel J. Zrymiak Govindarajan Ramu Roderick A. Munro, The Certified Six Sigma Green Belt Handbook
2. Hemant Urdhwareshe, Six Sigma for Business Excellence: Approach, Tools and Applications, Pearson Education
3. Mitra, Amitava, Fundamentals of Quality Control and Improvement, Wiley India Pvt Ltd

Suggested Reference Books:

1. T. M. Kubiak and Donald W. Benbow, The Certified Six Sigma Black Belt Handbook, Pearson Publication.
2. Montgomery, D C. Statistical Quality Control: A modern introduction, Wiley.
3. Forrest W. Breyfogle III, Implementing Six Sigma, John Wiley & Sons.
4. Evans, J R and W M Lindsay, An Introduction to Six Sigma and Process Improvement, CENGAGE Learning.
5. Howard S. Gitlow and David M. Levine, Six Sigma for Green Belts and Champions, Pearson Education, Inc.
6. Montgomery, D C. Design and Analysis of Experiments, Wiley.
7. Larson, Alan, Demystifying Six Sigma: A Company–Wide Approach to Continuous Improvement, American Management Association

Subject Core (SC) Courses - Semester IV
Specialization: Operations & Supply Chain Management

Semester IV		403 OSCM- E Supply Chains and Logistics
3 Credits	LTP: 2:1:1	Subject Core (SC) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO403OSCM .1	REMEMBERING	DESCRIBE the structure of modern days Logistics.
CO403OSCM .2	UNDERSTANDING	EXPLAIN the key concepts of Supply Chain Management and the – driving forces in contemporary Supply Chain Management.
CO403OSCM .3	APPLYING	IDENTIFY the various flows in real world supply chains and Logistics. IDSCRIBE the importance of documentations.
CO403OSCM .4	ANALYSING	COMPARE and CONTRAST push and pull strategies in Supply Chain Management. ANALYSE the impact of tracking system linkage in Logistics.
CO403OSCM .5	EVALUATING	EXPLAIN the key Operational Aspects of E Procurement.
CO403OSCM .6	CREATING	DEVELOP a framework for e-logistics

- 1. Introduction to E-logistics:** Nature and Scope of E Logistics, Forward E-logistics, Reverse E-logistics, Challenges of E-logistics, environmental issues, e-business strategy, Application for E-logistics in Business to business and Business to consumers, Logistics renovation towards E-logistics, New trends and technology in logistics. (7+2)
- 2. e-Supply Chain Management:** Competitive advantages through e-Supply chain management, Process orientation as a basic understanding in the value creation process, Holistic approach to supply chain management, e-Supply Chain Management as a concept for success, Collaborative Commerce: The future in e-SCM , e-Supply chain system, Elements of e-supply chains, Characteristics of e-SCM, Structuring the e-SCM business architecture strategy. (7+2)
- 3. E-logistics documentation:** Electronic data interchange, ERP Enterprise resource planning systems, Intranets and extranets – The world wide web, Web-enabled relational databases, data warehouses and data marts, Decision support systems. (6+2)
- 4. E-Tracking Systems:** ASNs, tracking systems, Satellite global positioning systems (GPS) and geographic information systems (GIS), Bar-coding and scanning, Electronic signature technology, Wireless technology, Radio frequency identification (RFID). (8+2)
- 5. E-Supply Chains & Logistics:** Electronic procurement (e-Procurement): Transport and delivery management, Packing and order management, Inventory and warehousing, E-business logistics and its benefits. E-Sales: e-Sales in the e-Commerce environment, CRM as a philosophy, e-Distribution: distribution strategies in the e-age, e-Payment: transactions along the e-Supply chain, e-SCM scorecard: controlling in e-Supply chain management. (8+2)

Suggested Text Books:

1. E-Supply-Chain-Management, Prof. Dr. Helmut H. Wannenwetsch, Sascha Nicolai
2. Applications of Supply Chain Management and E-Commerce Research, Joseph Geunes, Elif Akçali... in Applied Optimization
3. Supply chain management, Engaging technology to build market – winning business partnerships, David F Ross
4. Supply Chain Management, Oliver Lawrenz... in Business Computing
5. Logistics, Harald Gleissner J. Christian Femerling
6. Lean Supply Chain and Logistics Management Paul Myerson

Suggested Reference Books:

1. Supply Chain Logistics Management, Donald Bowersox, David Closs, M Bixby Cooper, Tata McGraw Hill.
2. Introduction to Materials Management, J.R. Tony Arnold, Stephen Chapman, Ramakrishnan, Pearson.

Semester IV		404 OSCM- Industry 4.0
3 Credits	LTP: 2:1:1	Subject Core (SC) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO404OSCM .1	REMEMBERING	DEFINE industrial revolutions and its different aspects.
CO404OSCM .2	UNDERSTANDING	EXPLAIN the role of technology pillars of Industry 4.0.
CO404OSCM .3	APPLYING	DEMONSTRATE the use of data in effective decision making.
CO404OSCM .4	ANALYSING	ILLUSTRATE the need of cyber physical system for sustainable competitive advantage.
CO404OSCM .5	EVALUATING	EXPLAIN the challenges faced by various industries in full fledge implementation of Industry 4.0
CO404OSCM .6	CREATING	DEVELOP a framework for any organization using base of Smart Industry Readiness Index Proposed by Singapore EDB

- Decoding Various Aspects of Industrial Revolutions :** The 4th Industrial Revolution: The Various Industrial Revolutions, Japanese vs. Western approach for manufacturing excellence, Introduction to Industry 4.0, Overview on Mechatronics, Sensing and Actuation, Communication and Networking, Digitalization and the Networked Economy, Drivers, Enablers, Compelling Forces and Challenges for Industry 4.0, The Journey so far: Developments of Industry 4.0 in developed countries. Comparison of Industry 4.0 Factory and Today's Factory, Developments in Industrial revolution, its impact on governments, businesses, civil society and individuals, and offers bold ideas. (7+1)
- Way to Fourth Industrial Revolution:** Features and uniqueness of the Cyber-physical Systems, Introduction to Pillars of Industry 4.0, Collaborative Platform and Product Lifecycle Management, Manufacturing as a Administration, Horizontal and Vertical Integration. Smart Factory, Smart Manufacturing, Smart Devices and Products, Smart Logistics, Smart Cities. Internet of Things (IoT) & Industrial Internet of Things (IIoT) and Introduction to IIoT layers, Overview of Reference Architectural Model Industrie 4.0 (RAMI 4.0), Internet of Services. (8+2)
- Data and Analytics:** Resource-based view of a firm and importance of data as a new resource for organizations, Big data analytics (BDA) and significance of V's of big data. Overview of Software Defined Network (SDN), Harnessing and sharing knowledge in organizations, Four types of Analytics: Descriptive, Diagnostics, Predictive, and Prescriptive Analytics, Artificial Intelligence, Cloud Computing Basics. (7+2)
- Ecosystems for Industry 4.0:** Robots and Cobots, Mobile Computing, Supporting Systems and related disciplines for I4.0 such as Augmented Reality, Virtual Reality and Mixed Reality, Additive Manufacturing, Automated Guided Vehicle (AGV), Cyber Security. (7+2)
- Challenges, Preparedness and Use Cases:** Opportunities and Challenges, Future of Work system and skill requirements, Leadership for Industry 4.0, Strategies for competing in an Industry 4.0 era, Introduction to Smart Industry Readiness Index (SIRI), Overview of Society 5.0. Other Applications and Case Studies Industry 4.0 laboratories (CII 4.0), IIoT case studies across world: Sector-wise and/or Function-wise e.g. Healthcare, Automobile, Banking, Power etc. or Inventory Management, Quality Control, Plant Safety and Security, Facility Management etc. (Minimum 1) (7+2)

Suggested Text Books:

- The Fourth Industrial Revolution, by Klaus Schwab, Portfolio Penguin
- Industry 4.0: The Industrial Internet of Things, by Alasdair Gilchrist
- Industry 4.0: Entrepreneurship and Structural Change in the New Digital Landscape (Studies on Entrepreneurship, Structural Change and Industrial Dynamics), by Tesselano Devezas, Joao Leitao, Askar Sarygulov, Springer International Publishing
- "Industrial Internet of Things: Cyber manufacturing Systems" by Sabina Jeschke, Christian Brecher, Houbing Song, Danda B. Rawat (Springer)

Suggested Reference Books:

- Analysing the Impacts of Industry 4.0 in Modern Business Environments, by Richard Brunet-Thornton and Felipe Martinez, IGI Global

2. The 4th Industrial Revolution: Responding to the Impact of Artificial Intelligence on Business, Book by Felix Hovsepian and Mark Skilton
3. Industry X.0: Realizing Digital Value in Industrial Sectors, by Eric Schaeffer, Kogan Page
4. Analysing the Impacts of Industry 4.0 in Modern Business Environments, Felipe Martinez; Richard Brunet-Thornton; IGI Global

Subject Elective (SE) Courses - Semester III
Specialization: Operations & Supply Chain Management

Semester IV		409 OSCM- Enterprise Resource Planning
2 Credits	LTP: 2:1:1	Subject Elective (SE) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO409OSCM.1	REMEMBERING	DESCRIBE the key concepts of ERP systems for manufacturing or service organizations.
CO409 OSCM.2	UNDERSTANDING	EXPLAIN the scope of common ERP Systems modules.
CO409 OSCM.3	APPLYING	DEVELOP basic understanding of how ERP enriches the business organizations in achieving a multidimensional growth.
CO409 OSCM.4	ANALYSING	EXAMINE the challenges associated with implementing enterprise systems and their impacts on organizations.
CO409 OSCM.5	EVALUATING	JUSTIFY selection of an appropriate ERP transition strategy.
CO409 OSCM.6	CREATING	FORMULATE best selection and implementation strategy in a real setting.

- 1. Introduction to ERP:** Evolution of ERP, Reasons for the Growth of ERP, Scope of ERP systems, General model of business and ERP, Three Tier Architecture of ERP, Various Modules of ERP, Benefits and Risks of ERP, ERP and related technologies – Data mining, data warehousing, On-Line Analytical Processing (OLAP), Supply Chain Management (SCM), Customer Relationship Management (CRM), Geographical Information Systems (GIS).(5+1)
- 2. ERP Modules:** Introduction; Finance, HRM, Production Planning, Plant Maintenance, Quality Management, Materials Management and Manufacturing Management. (5+1)
- 3. Business Process Reengineering (BPR):** Introduction, need of BPR, Pros and Cons of BPR, reasons for failure and success of BPR, Reengineering phases, Role of IT in BPR, **Selection of ERP vendors:** Role of vendors, consultants and users, Vendor selection process, In-House Implementation - Pros and Cons. (5+1)
- 4. ERP Implementation Lifecycle:** Issues in Implementing ERP Packages; Pre-evaluation Screening; Package Evaluation; Project Planning Phase; Gap Analysis; Reengineering; Configuration; Implementation; Team Training; Testing; Going Live; End-User Training; Post Implementation (Maintenance Mode), Success and failure factors of ERP implementation. (5+1)
- 5. ERP Transition Strategies -** Big Bang Strategy, Phased Implementation, Parallel Implementation, Process Line Transition Strategy, Hybrid Transition Strategy, Strategy Choice; Success and failure factors of an ERP implementation; ERP implementation costs; Organization and working of ERP implementation team. (5+1)

Suggested Text Books:

1. Enterprise Resource Planning-Text and Cases, Rajesh Ray, Tata McGraw Hill
2. Enterprise Resource Planning, Alexis Leon, Tata McGraw Hill
3. Enterprise Resource Planning – A Managerial Perspective, Veena Bansal, Pearson
4. Vinod Kumar Garg, N. K. Venkitakrishnan, Enterprise Resource Planning: Concepts and Practice, PHI

Suggested Reference Books:

1. Enterprise Resource Planning, Mary Sumner, Pearson Education
2. Enterprise Resource Planning- A Managerial Perspective, D P Goyal, Tata McGraw Hill
3. Textbook of Enterprise Resource Planning, Mahadeo Jaiswal and Ganesh Vanapalli, Macmillan
4. Manufacturing Resource Planning (MRP II) with Introduction to ERP; SCM; an CRM by Khalid Sheikh, Publisher: McGraw-Hill
5. The Impact of Enterprise Systems on Corporate Performance: A study of ERP, SCM, and CRM System Implementations [An article from: Journal of Operations Management] by K.B. Hendricks; V.R. Singhal; and J.K. Stratman, Publisher: Elsevier
6. ERP and Supply Chain Management by Christian N. Madu, Publisher: CHI 4. Implementing SAP ERP Sales & Distribution by Glynn C. Williams, Publisher McGraw-Hill

Semester IV		410 OSCM- World Class Manufacturing
2 Credits	LTP: 2:1:1	Subject Elective (SE) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO410OSCM.1	REMEMBERING	DEFINE the basic terms associated with Manufacturing Excellence and World Class Manufacturing
CO410OSCM.2	UNDERSTANDING	SUMMARIZE the features of various frameworks used for World Class Manufacturing
CO410OSCM.3	APPLYING	IDENTIFY the challenges to manufacturing industry in the information age
CO410OSCM.4	ANALYSING	ANALYZE the usage of Information management tools, Material processing and handling tools.
CO410OSCM.5	EVALUATING	EVALUATE the country's preparedness for World Class Manufacturing
CO410OSCM.6	CREATING	ESTIMATE the performance of manufacturing firms with the measurement system to determine the readiness for World Class Manufacturing

- World Class Manufacturing and the Information Age:** Information Age, Competing in the Information Age. Business challenges of the Information Age, Operating Environment of the Information Age. India's global Competitiveness and Manufacturing Excellence. World Class Manufacturing and the Information Age Competition, Manufacturing Challenges of the Information Age – Time based competition. Managing knowledge, Problems in the Manufacturing Industry – Coordination, Need for Control, Fragmented Information Infrastructure, Insufficient process ability of available information. (5+1)
- World Class Manufacturing and Competitive Advantage:** Manufacturing Excellence and Competitiveness. Concept of World Class Manufacturing. Hall's Framework of Value-added Engineering, Schonberger's framework of World Class Manufacturing, Gunn's model of World Class Manufacturing, Maskell's model of World Class Manufacturing. The Philosophy of World Class Manufacturing, The Evolution of World Class Manufacturing, The first principles of World Class Manufacturing, The Practices of World Class Manufacturing, Quality in World Class Manufacturing. (5+1)
- World Class Manufacturing - Systems and Tools:** The integration imperative, Overview of systems and tools, Making sense of the manufacturing alphabet soup, Information management tools, Material processing and handling tools. Information management tools – Product and Process Design Tools, Bar Code Systems, Kanban, SQC, Business Integration and Decision Support Tools. Material processing and handling tools – Flexible Manufacturing Systems, Rapid Prototyping, Lean production tools, Poka Yoke, SMED. An assessment of Manufacturing systems and tools. (5+1)
- World Class Manufacturing –Indian Scenario:** Competitiveness of Indian Manufacturing, Manufacturing Performance and planned strategies of Indian Manufacturing firms. Manufacturing readiness of Indian Firms, Manufacturing Objectives and strategy. Usage of management tools and technologies, Manufacturing Management Practices, The Manufacturing Strategic Intent Framework, Strategic use of IT in Indian Manufacturing, Classification by breadth of IT infrastructure and depth of manufacturing applications, Classification by breadth and integration of IT infrastructure, Manufacturing Strategy – World class Status and IT Use: Is India Ready for World Class Manufacturing? (5+1)
- Leading India towards World Class Manufacturing:** Business Strategy and Global Competitiveness. Generic Manufacturing Strategies for the Information Age. Developing strategic thinking in manufacturing, Issues in Strategic planning for World Class Manufacturing, Barriers to using IT strategically. Strategic Planning Methodology for World Class Manufacturing, Implementing the World Class Manufacturing Plan, Need for performance measurement –The POP System, The TOPP System, The AMBITE System, Quality Performance, Cycle Time, Delivery Performance and Customer Service, Financial Performance Measures, The Balanced Score Card, Human Resource Dimensions in World Class Manufacturing – Morale and Teamwork. (5+1)

Suggested Text Books:

- World Class Manufacturing – A Strategic Perspective by B S Sahay, K B C Saxena, Ashish Kumar, Macmillan Publishers India Ltd.
- World Class Manufacturing by K. Sridhara Bhat, Himalaya Publishing.

Suggested Reference Books:

1. Making Common Sense Common Practice – Models for Manufacturing Excellence by Ron Moore, Elsevier Pub., 3rd Ed.
2. Competitive Manufacturing Management by John Nicholas, TMGH.
3. The Japanese Manufacturing Techniques by Richard Schonberger, The Free Press
4. Just in Time Manufacturing by M. G. Korgaonker, Macmillan Publishers India Ltd.

Semester IV		411 OSCM- Supply Chain Strategy
2 Credits	LTP: 2:1:1	Subject Elective (SE) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO411OSCM.1	REMEMBERING	DEFINE basic terms and concepts related to Strategy, Supply Chain
CO411OSCM.2	UNDERSTANDING	EXPLAIN the SC Components and Processes
CO411OSCM.3	APPLYING	ILLUSTRATE the importance of SC strategies on competitive advantage.
CO411OSCM.4	ANALYSING	OUTLINE a typical Supply Chain Model for a product / service and ILLUSTRATE the linkages of strategies with real time issues using Information Technology.
CO411OSCM.5	EVALUATING	EVALUATE and EXPLAIN impact of strategic decisions on SC
CO411 OSCM.6	CREATING	FORMULATE and DISCUSS a model for SCM strategies

1. **SC and Business Strategy:** Understanding Strategy and SC, Objectives of SC, decision phases, process strategies. Generic strategies in SC – Competitive & SC strategies, Strategies for SC--fit-demand based, commodity based, cost centric. Strategies to deal with uncertainty, Competitive advantage through SC Strategies. (5+1)
2. **Supply Chain Strategies -- Planning and scheduling:** Demand forecasting – Role of forecasting in SC, Components of forecasting, Forecasting models, Aggregate planning- Inventory, Transportation, Pricing, Information, Internal logistics, Transportation using LP (numerical). Sales and Operation planning – responsiveness of predictive variables, sales planning at real time. Scheduling in SC – impact, obstacles, tactics, importance. (5+1)
3. **SC Strategy and Distribution Network:** SC Strategy--Supplier Strategy, Operations Strategy, Logistics Strategy. Designing distribution networks – Factor affecting distribution, Framework, online sales, Omni-channel retailing, different network models for designing, identifying and allocating. Global SC networks – impact, importance, risk management in SC. (5+1)
4. **Performance measures in SC Strategy:** Financial measures - Cost of raw materials, Revenue from goods sold., Activity-based costs like the material handling, manufacturing, assembling rates etc. Inventory holding costs, Transportation costs, Cost of expired perishable goods, Penalties for incorrectly filled or late orders delivered to customers, Credits for incorrectly filled or late deliveries from suppliers, Cost of goods returned by customers, Credits for goods returned to suppliers. Non – Financial measures - Cycle Time, Customer Service Level, Inventory Levels. Resource Utilization. (5+1)
5. **SC Strategy and Information Technology:** SC Strategies and Information Technology, Role of IT in SC, Application of strategies in retail and healthcare, Building SC models using Excel, Agile vs Lean strategies, LeAgile supply chain management strategy, Green SCM, Future trends in SC. (5+1)

Suggested Text Books:

1. Supply Chain Management: Strategy Planning & Operations, Sunil Chopra, Peter Meindl, Pearson
2. Supply Chain & Logistics Management, Bowersox, Closs & Cooper, Tata McGraw Hill
3. Designing & Managing the SC – Concepts, Strategies & Case studies, Levi, Kaminsky et. al., Tata McGraw Hill

Suggested Reference Books:

1. Logistics Management & Strategy, Harrison and van Hoek, Prentice Hall
2. Total Supply Chain Management, Basu & Wright, Elsevier
3. Logistics Management: The Supply Chain Imperative, Vindo Sople, Pearson Education
4. Supply Chain Management, Mentzer, Response Books.

Semester IV		412 OSCM- Financial Perspectives in Operations Management
2 Credits	LTP: 2:1:1	Subject Elective (SE) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO412OSCM.1	REMEMBERING	REMEMBER basic concepts used in cost management, Budgeting and activity-based costing
CO412OSCM.2	UNDERSTANDING	UNDERSTAND the importance of cost management as key to profitability.
CO412OSCM.3	APPLYING	CALCULATE NPV, PI, IRR, BCR, NBCR, Project cost overruns and cost control with Microsoft Excel.
CO412OSCM.4	ANALYSING	Outline capital budgeting techniques used in Operations.
CO412OSCM.5	EVALUATING	Explain the role of Financial Institutions in project financing
CO412OSCM.6	CREATING	Solve the real time issues involved in Operations and Project Management using appropriate method in order to reduce the costs.

- Cost Management:** Cost management tools-life cycle costing, target costing, kaizen costing, JIT & theory of constraints, BPR and bench marking. Working Capital Management –Concept, Components, Scope, Practical applicability. Make or buy, hire vs purchase (Numerical & Analysis) (5+1)
- Activity Based Costing:** Concept and basic knowledge, applicability, Limitations, Simple Numerical. Cost Concepts, behaviour, type, allocation, apportionment and absorption along with nature, applicability and limitations of Job & Process Costing. (5+1)
- Budgeting:** Budgeting – nature, administration and effectiveness; budgeting cycle; activity-based budgeting; kaizen approach; ZBB; performance budgeting; human aspects of budgeting. (5+1)
- Capital Budgeting:** The Capital Budgeting Concept & Process - An Overview, Generating Investment Project Proposals, Estimating Project, After Tax Incremental Operating Cash Flows, Capital Budgeting Techniques, Project Evaluation and Selection - Alternative Methods, Potential Difficulties , Project Monitoring – Progress Reviews and Post - Completion Audits, Problem of Project Risk, Total Project Risk, Capital Rationing , Decision Tree. (5+1)
- Project Cost Estimate and Risk Analysis:** Cost of project, Components of capital cost of a project, Project Risk Analysis, Project Organization. Project Evaluation and Audit: Sources of financing, Role of Financial Institutions in project financing, Data required for calculation of NPV, PI, IRR, BCR, NBCR, Project cost overruns and cost control, Phases of post audit, Type of post audit, Project closure (Use of Microsoft Excel/MS Project is Recommended.) (5+1)

Suggested Text Books:

- Financial Management by I.M. Pandey, Vikas Publications
- Financial Management by M.Y.Khan & P.K.Jain, TMGH
- Project Management by K. Nagarajan, New Age Publications

Suggested Reference Books:

- Financial Management by Rajiv Shrivastava & Anil Mishra, Oxford Publication
- Corporate Financial Management by Arnold Glen, Pearson Publication

Semester IV		413 OSCM- Facilities Planning
2 Credits	LTP: 2:1:1	Subject Elective (SE) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO413OSCM.1	REMEMBERING	DESCRIBE the concepts and principles of Facilities Planning.
CO413OSCM.2	UNDERSTANDING	EXPLAIN the key considerations in Facilities Planning.
CO413OSCM.3	APPLYING	ILLUSTRATE the use of the concepts and principles of Facilities Planning.
CO413OSCM.4	ANALYSING	EXAMINE the practical layouts in real world in light of the theoretical concepts and principles of Facilities Planning.
CO413OSCM.5	EVALUATING	EVALUATE various approaches to Facilities Planning.
CO413 OSCM.6	CREATING	REARRANGE existing layouts for enhanced outcomes.

- 1. Introduction to Facilities Planning:** Facilities planning defined, Significance of Facilities Planning, Objectives of Facilities Planning, Long Range Capacity Planning, Facilities Planning process, Strategic Facilities Planning, Developing Facilities Planning Strategies, Examples of Inadequate Planning. Impact of Environmental Issues on Facilities Planning Product, Process and Schedule Design: Introduction, Product Design, Process Design, Schedule Design, Facilities Design. (5+1)
- 2. Logistics and Facilities Location:** Logistics, Decisions related to Logistics, Issues in Facilities location – Market related factors, Cost-related factors, Regulatory and Policy Issues, Location Planning Methods – Location Factor rating, Centre-of-gravity method, Load-distance method, Transportation Model. Locating Service Facilities, Relocation aspects,
- 3. Layout Planning:** Concept of Layout, Basic Layout Types, Layout Procedures, Algorithmic approach, Department Shapes and Aisles, Multi-floor facility layout, Commercial Facility Layout, Impact of change, Developing alternative layouts. Introduction to ALDEP and CORELAP. Facilities design for various Facilities Functions: Warehouse operations – Functions of Warehouse, Receiving and Shipping Operations, Dock Locations, Storage Operations, Order Picking Operations.
- 4. Service Facilities Layout:** Nature of Services, Operational Classification of services, Structuring the service encounter, Service blueprinting and fail-safing, Role of floor manager in service sectors such as – Hospital, Hotel, Airlines and airports.
- 5. Flow Space and Activity Relationships:** Departmental Planning, Activity Relationships, Flow Patterns, Flow Planning, Measuring Flow, Space Requirements. Personnel Requirements: Employee-Facility Interface, Restrooms, Food Services, Health Services, Barrier-Free Compliance, Office Facility Planning. Material Handling: Scope and Definition of Material Handling, Material Handling Principles, Designing Material Handling Systems, Unit Load design, Material Handling Equipment, Estimating Material Handling costs, Safety Considerations.

Suggested Text Books:

1. Facilities Planning by Tompkins, White, Bozer and Tanchoco, Wiley India
2. Operations Management – Theory and Practice by B Mahadevan, Pearson
3. The Goal by E M Goldratt and Cox J, Great Barrington, North River

Suggested Reference Books:

1. Operations and Supply Management by Chase, Shankar, Jacobs and Aquilano
2. Operations Management by Terry Hill, Palgrave.
3. Operations Management – Quality and Competitiveness in a Global Environment by Russell and Taylor, Wiley India

Semester IV		414 OSCM- Purchasing and Supplier Relationship Management
2 Credits	LTP: 2:1:1	Subject Elective (SE) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO414OSCM.1	REMEMBERING	DESCRIBE the Purchasing Process and its importance in organizations.
CO414OSCM.2	UNDERSTANDING	Students will understand the impact of purchasing on competitive success and profitability of modern-day organizations.
CO414OSCM.3	APPLYING	MAKE USE OF the various Negotiation technique in the context of Purchasing process.
CO414OSCM.4	ANALYSING	ILLUSTRATE how Supplier evaluation and selection is done in organizations and its relationship with corporate Strategy.
CO414OSCM.5	EVALUATING	EXPLAIN the importance of Performance Measurement & Evaluation in operations management.
CO414 OSCM.6	CREATING	BUILD A purchasing strategy for a real world situation.

- 1. Purchasing Process, Policy & Procedures:** Overview of Purchasing & Supply Chain Management, Purchasing Objectives, Responsibilities of Purchasing, Types of Purchases, Improving Purchase Process, Purchasing Procedures, Policy Overview – What makes an effective Policy, Advantages & Disadvantages of Policies, Policies defining - Role & conduct of Purchasing, Buyer-Supplier Relationship, Operational Issues, Ethical considerations in Purchasing. (5+1)
- 2. Purchasing of Services:** Hidden Opportunities, Planning the statement of work, Writing the statement of work, selecting service contractors, Compensating Service suppliers, Professional services, Technical services, Operating services, Contract administration, Develop a sound Procedure for Evaluation. (5+1)
- 3. Strategic Sourcing – Supplier Evaluation & Selection:** Linking Purchasing and Corporate Strategy. Translating Corporate Objectives into Purchasing Goals, Translating Purchasing Objectives into Purchasing Goals, Purchasing Strategy Development Process, Types of Purchasing Strategies, Supply Base Optimization, Critical Role of In-sourcing / Outsourcing, The In-sourcing / Outsourcing Decision Process, Make or Buy, Supplier Evaluation and Selection Process, Need for Supplier Selection, Identifying key sourcing requirements, Evaluation and Selection, Key Supplier Evaluation Criteria. (5+1)
- 4. Negotiation & Contracts Management:** Objectives of negotiation, when to negotiate, The negotiation Process, Preparation, Establishing the Objectives, Dynamics of Negotiation, Phases in face-to-face negotiation, Negotiation Techniques – traditional, collaborative, price analysis, cost analysis. Types of Contracts – Fixed Price, Cost based / Indexation, Long term, Short term. Consideration when selecting contract types, How to write a Contract. Essential elements of Contract, Purchase Order (P.O), Difference between P.O & Contract. (5+1)
- 5. Performance Measurement & Evaluation:** Why Measure Performance, Problems with Purchasing Measurement and Evaluation. Purchasing Measurement Categories – Price Performance Measures, Cost-Effectiveness Measures, Quality, Time related Measures, Technology Innovation Measures, Physical Environment and Safety, Asset Management and Integrated SC Measures. Administration and Efficiency Measures, Developing a Performance Measurement and Evaluation System - Determining which Performance Categories to Measure, Developing Specific Performance Measures, Establish Performance Objectives for each Measure, Finalize system Details, Implement and Review. (5+1)

Suggested Text Books:

1. Purchasing & Supply Chain Management by Monczka, Trent, Handfield, Cengage South Western.
2. Purchasing & Supply Chain Management by Lysons and Farrington, Pearson Education.

Suggested Reference Books:

1. Purchasing & Supply Chain Management by Dobler, Burt, TMGH
2. New Directions in Supply Chain Management: Technology & Strategy Implementation by Tonya Boone and Ram Ganeshan, Jaico Publishing.
3. Extending the Supply Chain by Boyer, Forhlich and Hult, PHI.

Semester IV		415 OSCM- Strategic Supply Chain Management
2 Credits	LTP: 2.0.0	Subject Elective (SE) Course – Operations & Supply Chain Management

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO415OSCM.1	REMEMBERING	DEFINE Key configuration components of Strategic Supply Chain Management.
CO415OSCM.2	UNDERSTANDING	EXPLORE Process Architecture and Toolkits of in Strategic Supply Chain Management
CO415OSCM.3	APPLYING	ILLUSTRATE the Design Organization for Performance and Organizational Change
CO415OSCM.4	ANALYSING	EXAMINE the Right Collaborative Model and Drivers of collaboration of Strategic Supply Chain Management
CO415OSCM.5	EVALUATING	ILLUSTRATE Use of Metrics to Drive Business Success and Roadmap to change
CO415 OSCM.6	CREATING	DEVELOP the architecture of a supply chain.

- Supply chain as Strategic Asset** - Key configuration components - Operations strategy, Outsourcing strategy, Channel strategy, Customer service strategy, Asset network, Criteria of robust SC strategy - Aligned with business strategy, Aligned with customers' needs, Aligned with power position, Adaptive, Next Generation Strategy - support continuing improvements in productivity and drive the achievement of business-level outcomes. (5+1)
- Process Architecture** – SC architecture details the process, applications, and information to improve and evolve, Components of SC architecture, Tests of Supply Chain Architecture – Strategic fit, End-to-end focus, Simplicity and Integrity, Architectural Toolkits , Levels of the Supply-Chain Operations Reference-model (SCOR) Model - processes, subprocesses, and activities, Processes for End-to-End Supply Chain Management – Plan, Source, Make, Deliver and Return, Next-Generation Processes. (5+1)
- Design Organization for Performance** – Primary challenges - structure of SC organization, roles and responsibilities, right people with the right skills. Organisational Change Is an Ongoing Process – modify & redefine, Evolution of the SC Organisation, Guiding Principles for Organizational Design - organization should mirror process, every process has an accountable function or individual, Know, grow, and keep your core capabilities, Organize around the skills you need, Gaining Respect for the Supply Chain Discipline, Next-Generation Organizational Design – new roles and new skills. (5+1)
- Build the Right Collaborative Model** - Drivers of collaboration, desire to access - technology, capital-intensive technology, cost of competency to acquire, develop, or maintain, and new market effectively closed off by high entry costs or preconditions. Collaboration Spectrum model, transactional, cooperative, coordinated, and synchronized, Finding the right place on the Spectrum, The Path to Successful Collaboration - Master internal collaboration first, Define the degree of collaboration for each partner segment, Next-Generation Collaboration. (5+1)
- Use Metrics to Drive Business Success** - Why Measure, Managing Performance with Metrics, Which Metrics, Next-Generation Performance Management, Roadmap to change - advanced systems Aren't Enough, Stages of supply chain process maturity model, Characteristics of the Next Generation - transparency, flexibility, and simultaneity, Developing a Roadmap – creating the roadmap to change. (5+1)

Suggested Text Books:

- Strategic SCM – The Five discipline for top performers - Shoshanah Cohen, Joseph Roussel
- Strategic Supply Chain Management: Creating Competitive Advantage and Value Through Effective Leadership, by Samir Dani
- Supply Chain Strategies – Customer Driven & Customer Focused by Tony Hines, Elsevier
- Supply chain management – strategy, planning & operation –Sunil Chopra , Peter Meindl.

Suggested Reference Books:

- Managing the SC- A Strategic Perspective by Gattorna Walters, Palgrave Macmillan
- Extending the Supply Chain by Boyer, Forhlich and Hult, PHI, 3rd Indian Reprint
- Strategic Supply Chain Management by S. Kale, Everest Publication

4. New Directions in Supply Chain Management: Technology & Strategy Implementation by Tonya Boone and Ram Ganeshan, Jaico Publishing
5. Designing & Managing the SC – Concepts, Strategies & Case studies – by Levi, Kaminskyet. al., TMGH.

Subject Core (SC) Courses - Semester III
Specialization: Business Analytics

Semester III		304 BA- Advanced Statistical Methods using R
3 Credits	LTP: 2:1:1	Subject Core (SC) Course – Business Analytics

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO304BA .1	REMEMBERING	RECALL all basic statistical concepts and associated values, formulae.
CO304BA .2	UNDERSTANDING	EXPLAIN the statistical tools and DESCRIBE their applications in multiple business domains and scenarios
CO304BA .3	APPLYING	APPLY time series analysis in prediction of various trends.
CO304BA .4	ANALYSING	DISCRIMINATE between various types of probability and probability distributions.
CO304BA .5	EVALUATING	FORMULATE and TEST hypothesis using tools of R.
CO304BA .6	CREATING	COMPILE various tools and functions of R programming language and use them in live analytical projects in multiple business domains and scenarios.

- 1. Statistics with R:** Computing basic statistics, Business Hypothesis Testing concepts, Basics of statistical modeling, Logistic Regression, Comparing means of two samples, Testing a correlation for significance, Testing a proportion, t test, z Test, F test, Basics of Analysis of variance (ANOVA), One way ANOVA, ANOVA with interaction effects, Two way ANOVA, Summarizing Data, Data Mining Basics, Cross tabulation. Case studies in different domains- using R. **(7+2)**
- 2. Linear Regression:** Concept of Linear regression, Dependency of variables, Ordinary Least Sum of Squares Model, Multiple Linear Regression, Obtaining the Best fit line, Assumptions and Evaluation, Outliers and Influential Observations, Multi-collinearity, Case studies in different domains- using R. Dimension Reduction Techniques – Concept of latent dimensions, need for dimension reduction, Principal Components Analysis, Factor Analysis. Case studies in different domains- using R. **(7+2)**
- 3. Probability:** Definition, Types of Probability, Mutually Exclusive events, Independent Events, Marginal Probability, Conditional Probability, Bayes Theorem. Probability Distributions – Continuous, Normal, Central Limit theorem, Discrete distribution, Poison distribution, Binomial distribution. **(7+2)**
- 4. Predictive Modeling:**
 - (a) Multiple Linear Regression:** Concept of Multiple Linear regression, Step wise Regression, Dummy Regression, Case studies in different domains- using R
 - (b) Logistic regression:** Concept of Logistic Regression, odds and probabilities, Log likelihood ratio test, Pseudo R square, ROC plot, Classification table, Logistic regression & classification problems, Case studies in different domains- using R
 - (c) Linear Discriminant Analysis:** Discriminant Function, Linear Discriminant Analysis, Case studies in different domains- using R **(7+2)**
- 5. Time Series:** Time Series objects in R, Trends and Seasonality Variation, Decomposition of Time Series, autocorrelation function (ACF) and partial autocorrelation (PACF) plots, Exponential Smoothing, holt's Winter Method, Autoregressive Moving Average Models (ARMA), Autoregressive Integrated Moving Average Models (ARIMA), Case studies in different domains- using R. **(7+2)**

Suggested Self Learning Courses : Basic and advanced Business Analytics, data mining and python courses on swayam platform - <https://swayam.gov.in/>.

Suggested Text Books:

- R for Business Analytics, A Ohri
- Data Analytics using R, Seema Acharya, TMGH

3. Data mining and business analytics with R, Johannes Ledolter. New Jersey: John Wiley & Sons.
4. Business Analytics Using R - A Practical Approach, Dr. Umesh R. Hodeghatta, Umesh Nayak
5. Statistical Methods, S.P.Gupta
6. Quantitative Techniques, L.C.Jhamb
7. Quantitative Techniques, N.D.Vohra

Suggested Reference Books:

1. Statistics for Management, Levin and Rubin
2. Statistical data analysis explained: applied environmental statistics with R, Clemens Reimann. Chichester: John Wiley and Sons
3. Data science in R: a case studies approach to computational reasoning and problem solving, Deborah Nolan. Boca Raton: CRC Press

Semester III		305 BA - Machine Learning & Cognitive intelligence using Python
3 Credits	LTP: 2:1:1	Subject Core (SC) Course – Business Analytics

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO305BA.1	REMEMBERING	DEFINE the key terms in Python, Machine Learning and Cognitive Intelligence
CO305BA.2	UNDERSTANDING	EXPLAIN the applications of Machine Learning in multiple business domains and scenarios
CO305BA.3	APPLYING	DEVELOP a thought process to think like data scientist/business Analyst
CO305BA.4	ANALYSING	ANALYSE data using supervised and unsupervised Learning Techniques
CO305BA.5	EVALUATING	SELECT the right functions, arrays of Python for Machine Learning algorithms.
CO305BA.6	CREATING	COMBINE various tools and functions of Python language in developing Machine Learning algorithms and use them in live analytical projects in multiple business domain and scenarios.

1. **Python Basics:** Overview, Python Features, Basic Syntax, Variable Types, Basic Operators, decision making, Loops, Python Data Structures - Lists and Tuples, Sets, Dictionaries, Date & time, Functions, Scope of Variables, Function overloading, Operator overloading, Objects and Classes. (9+1)
2. **Working with Data in Python:** Reading files with Open, writing files with Open, loading data with Pandas, working with and saving with Pandas, Array oriented Programming with Numpy, Data cleaning and preparation, Plotting and Visualization, data Aggregation and Group Operations.(9+1)
3. **Machine Learning and Cognitive Intelligence:** Introduction to Machine Learning- History and Evolution, Machine Learning categories: Supervised, Unsupervised and Reinforcement learning. Framework for building ML Systems-KDD process model, CRISP-DM & SEMMA, Machine learning Python packages, Machine Learning Core Libraries. Introduction to Cognitive Intelligence, Features of Cognitive Intelligence. (8+2)
4. **Supervised Learning:** Introduction to classification, Linear Regression, Metrics for evaluating linear model, Multivariate regression, Non-Linear Regression, K-Nearest Neighbour, Decision Trees, Logistic Regression, Support Vector Machines, Model Evaluation, Applications of supervised learning in multiple domains. (9+1)
5. **Unsupervised Learning:** Clustering, Hierarchical clustering, Partitioning Clustering- K-mean clustering, Applications of unsupervised learning in multiple domains. (4+1)

Suggested Self Learning Courses : Basic and advanced Business Analytics, data mining and python courses on swayam platform - <https://swayam.gov.in/>,

Suggested Text Books:

1. Machine Learning using Python - Manaranjan Pradhan, U Dinesh Kumar
2. Ultimate Step by Step Guide to Machine Language using Python: Predictive modeling concepts explained in simple terms for beginners by Daneyal Anis
3. Machine Learning by Anuradha Srinivasaraghavan and Vincy Joseph

4. Machine Learning in Python – Michael Bowles
5. Machine Learning for Absolute Beginners: A Plain English Introduction (First Edition by Oliver Theobald)

Suggested Reference Books:

1. Mastering Machine Learning with Python in Six Steps: A Practical Implementation Guide to Predictive Data Analytics Using Python by Manohar Swamynathan
2. Machine Learning by Tom Mitchell
3. Python for Data Analysis by Wes McKinney
4. Machine Learning by Rajiv Chopra
5. Machine Learning by Peter Flach
6. Introduction to Machine Learning by Alpaydin Ethem
7. Machine Learning: A step by Step Guide to Learning and Understanding from Beginner to Expert (Beginner, Intermediate and Advanced) – Ronald Anthony

Subject Elective (SE) Courses - Semester III
Specialization: Business Analytics

Semester III	312 BA- Social Media, Web & Text Analytics
2 Credits	LTP: 1:1:1
Subject Elective (SE) Course – Business Analytics	

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO312BA.1	REMEMBERING	DEFINE the key terms in Social Media Analytics, Web Analytics and Text Analytics
CO312BA.2	UNDERSTANDING	EXPLAIN the applications of Social Media Analytics, Web Analytics and Text Analytics in multiple business domains and scenarios
CO312BA.3	APPLYING	DEVELOP a thought process to harness the power of social media analytics to improve website or business
CO312BA.4	ANALYSING	ANALYSE Social Media Analytics and Web Analytics Tools
CO312BA.5	EVALUATING	SELECT the right metrics for Social Media Analytics and Web Analytics
CO312BA.6	CREATING	COMBINE various tools and metrics in building high impact dashboard in multiple business domains and scenarios

1. **Social Media Overview:** Social Media Introduction, definition, evolution, need of social media, Importance of Social Media, Social Media Data Sources, Use of Social Media in Business, Objective and KPIs, Measure, Content flow on Social Network, Challenges, Tools to analyse and measure social data (Facebook, Twitter, Instagram, LinkedIn, YouTube), Social Analytics and competitors, Strategy planning in Social Media Analytics. (5+1)
2. **Social Analytics - Measuring Success:** Metric categories: Divide and Conquer, Selecting the best metrics for the job, Default and Custom Metrics, Elements of effective metrics, Metrics and Strategy. Estimated Metrics: Use and Common applications, Dashboards : Definition, Purpose, Objectives, default and custom dashboards, Reports: elements of reporting, good quality of reporting, 360 overview report, Data gathering in social Media Analytics, Types of Analytics in Social Media, Charts, Machine learning in Social Media. (6+1)
3. **Web Analytics Overview:** Introduction to Web Analytics, Web Analytics 2.0, Elements of Web Analytics 2.0: Clickstream, Multiple Outcomes, Experimentation and Testing, Voice of Customer, Competitive Intelligence, Choosing the right web analytic tool, Critical Web Metrics-Visits and Visitors, Time on Page and Time on Site, Bounce Rates, Exit Rates, Conversion Rates, and Engagement, Attributes of Great Metrics, Web Metrics Lifecycle Process. (5+1)
4. **Web Analytics - Measuring Success:** Actionable Outcome KPIs-Task completion Rate, Share of Search, Visitor Loyalty and Recency, RSS/Feed Subscribers, % of Valuable Exits, Cart and Checkout Abandonment ,Days and Visits to Purchase, Average Order Value, Identify the Convertible, Measuring Macro and Micro Conversions, Building the action Dashboard, Consolidated Dashboard, Rules for High-Impact Dashboards. (6+1)
5. **Text Analytics:** Introduction to text Analytics, Processing and Understanding Text -Tokenization, Tagging Chunking, Stemming, Lemmatization, Applications of Text Analytics. (4)

Suggested Text Books:

1. Web Analytics 2.0: The Art of Online Accountability and Science of Customer Centricity by Avinash Kuashik
2. Web Analytics: An Hour a Day by Avinash Kuashik
3. Web Analytics Action Hero: Using Analysis to Gain Insight and Optimize Your Business by Brent Dykes
4. Practical Web Analytics for User Experience by Michael Beasley
5. Text Analytics with Python: A Practical Real-World Approach to Gaining Actionable Insights from your Data by Dipanjan Sarkar

Suggested Reference Books:

1. Social Media Marketing Step by Step: The Guides to Instagram and Facebook Marketing- Bryan Bren
2. Social Media Analytics Strategy: Using data to optimize Business Performance – Alex Goncalves
3. Effective Advertising and Social Media: Strategy and Analytics – Gerard Tellis
4. Measuring the User Experience: Collecting, Analyzing, and Presenting Usability Metrics by Tom Tullis, Bill Albert, Morgan Kaufmann
5. Social Media Metrics: How to Measure and Optimize Your Marketing Investment by Jim Sterne, John Wiley & Sons
6. Advanced Web Metrics with Google Analytics by Brian Clifton, John Wiley & Sons

Semester III		313 BA- Industrial Internet of Things
2 Credits	LTP: 2:0:0	Subject Elective (SE) Course – Business Analytics

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO313BA.1	REMEMBERING	ENUMERATE the key concepts of industry 4.0, data science in manufacturing, operations analytics and IIOT
CO313BA.2	UNDERSTANDING	DISCUSS the value added by analytics in the operations function.
CO313BA.3	APPLYING	DEMONSTRATE the practical applications of data analytics and data science in manufacturing operations.
CO313BA.4	ANALYSING	EXAMINE the Industrial Internet of things (IIoT) and the role of Big Data Analytics.
CO313BA.5	EVALUATING	EXPLAIN the applications of analytics in operations.
CO313BA.6	CREATING	COMPILE the issues pertaining to the adoption of technologies that will shape industry

1. **Data Science for Modern Manufacturing:** Business Analytics and Big Data Driving Organizational Change, Industry 4.0, Industrial Internet, (Industrial) Internet of Things - A Platform Built for Manufacturing, Big Data and Analytics – Hardware, Platforms. Technology & Global Trends, The data-driven manufacturer, Issues and Challenges Data Science for Modern Manufacturing – Blending analytic skills and domain expertise, Rethinking business processes, Factoring in change management, Security, Data Integration. (5+1)
2. **Machine Learning:** Basics of Machine Learning, Natural-Language Processing, Autonomous Robots, Augmented Reality, and More: Simulation, Additive Manufacturing. (5+1)
3. **Industry 4.0:** LEAN Production Systems, The Fourth Revolution, Industry 4.0: Cyber Physical Systems, Industrial Processes - Sensing & Actuation, Processing, Communication. Next Generation Sensors, Collaborative Platform and Product Lifecycle Management. (5+1)
4. **Industrial IoT- Application Domains:** Healthcare, Power Plants, Inventory Management & Quality Control, Plant Safety and Security (Including AR and VR safety applications), Facility Management.
5. **Industrial IoT- Application Domains:** Oil, chemical and pharmaceutical industry, Applications of UAVs in Industries, Real case studies : Case study - I : Milk Processing and Packaging Industries, Case study - II: Manufacturing Industries - Part I, Case study - III : Manufacturing Industries - Part II, Case study – IV, Virtual Reality Lab, Case study - V : Steel Technology Lab

Suggested Textbooks:

1. Data Science for Modern Manufacturing by Li Ping Chu, O'Reilly Media
2. Industry 4.0 Data Analytics Paperback by Rajesh Agnihotri, Samuel New
3. Industry 4.0: The Industrial Internet of Things by Alasdair Gilchrist

- Industrial Internet of Things: Cyber manufacturing Systems by Sabina Jeschke, Christian Brecher, Houbing Song, Danda B. Rawat

Suggested Reference Books:

- Advances in Business, Operations, and Product Analytics: Cutting Edge Cases from Finance to Manufacturing to Healthcare (FT Press Analytics) by Matthew J. Drake

Semester III		314BA: Supply Chain Analytics
2 Credits	LTP: 2:0:0	Subject Elective (SE) Course – Business Analytics

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO314BA.1	REMEMBERING	DESCRIBE the importance of the basics of Supply Chain Analytics and Optimization
CO314BA.2	UNDERSTANDING	EXPLAIN the role and applications of Descriptive, Predictive & Prescriptive Analytics in a Supply Chain
CO314BA.3	APPLYING	ILLUSTRATE the basics of Modeling through R Language.
CO314BA.4	ANALYSING	EXAMINE the level of uncertainty associated with the supply of products and services to targeted customer segments and justify the choice of a supply chain strategy and its fit with competitive strategy.
CO314BA.5	EVALUATING	DETERMINE the right tools for addressing various issues in Supply Chain Analytics.
CO314BA.6	CREATING	COMBINE the various approaches to Supply Chain Analytics for improvements in the supply chain system

- Context of Supply Chain Analytics:** Context of today's supply chains (SC) analytics. Understanding and defining supply chain analytics (SCA). Review of Basics of Supply Chain Management, Significance of Analytics in a supply chain, Relating Operations Management with Supply Chain concepts and SC Analytics. The importance of supply chain analytics in the flows involving material, money, information and ownership. Key issues in Supply chain analytics, Case studies of Supply Chains Analytics in India.
- Supplier Selection Analytics:** Linear Programming, Rating method, Ranking method, Borda Count, Clustering, Goal Programming and related multi-criterion decision making (MCDM) techniques
- Transportation Modeling and Analytics:** Transportation models, Route planning, Transshipment, Shipment schedule, Flow path optimization.
- Warehousing Modeling and Analytics:** Warehouse location problem, MILP formulation, Location with foreign exchange risks, space calculation for warehouse, Non-linear optimization for warehouse space allocation.
- Strategic Performance Improvement:** Data Envelopment Analysis for competitive comparisons among multiple warehouses and service units and formulation of strategic action plans for improving the efficiencies of non-performing DMUs, Stochastic Frontier Analysis.

Suggested Textbooks:

- Unleashing the Potential of Supply Chain Analytics by Melissa R. Bowers, Adam Petrie and Mary C. Holcomb, Oreilly
- Modeling the Supply Chain, Jeremy F. Shapiro, Duxbury Thomson Learning
- Supply Chain Management, Sunil Chopra, and Peter Meindl, Pearson
- Business Analytics, Rahul Saxena and Anand Srinivasan

Suggested Reference Books:

- Designing and Managing the Supply Chain concepts, Strategies and Case studies, D. Simchi-Levi, P. Kaminsky, E. Simchi-Levi, and Ravi Shankar, Tata McGraw Hill, New
- Global Business Analytics Models: Concepts and Applications in Predictive, Healthcare, Supply Chain, and Finance Analytics by Hokey Min
- Supply Chain Planning and Analytics by Gerald Feigin

Semester III		315 BA- Cognos
2 Credits	LTP: 2:0:0	Subject Elective (SE) Course – Business Analytics

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO315BA.1	REMEMBERING	TELL how and when to use visualization
CO315BA.2	UNDERSTANDING	ILLUSTRATE uses of crosstabs and SQL queries
CO315BA.3	APPLYING	BUILD stunning Dashboards with Cognos Analytics
CO315BA.4	ANALYSING	ILLUSTRATE the full-fledged Report Authoring tool
CO315BA.5	EVALUATING	EXPLAIN how a dashboard is different from a report, and when to use both
CO315BA.6	CREATING	DEVELOP the advanced reporting solutions which allow users to perform complex analysis tasks and interact with information

- Getting started with IBM Cognos Analytics:** The user interface, Work in design, structure, or preview vie, Report layout and queries, Layout, Queries Report, objects, Find objects in a report, Relational and dimensional reporting styles, Options, Web browser settings. (5+1)
- Dashboards:** Designing for mobile use, create simple Dashboards, create complex interactive Dashboards, modify Dashboards, control Dashboard data. (5+1)
- Reports:** Create list reports, apply filters, use prompts, conditional formatting, calculations and macros, markers, presenting data graphically, using HTML and XML, using Crosstabs, using reusable objects, using layout control, combining multiple related objects, using interactivity. (5+1)
- Active Reports:** Create report connections, using Charts, Visualizations and Decks, managing controls and variables. (5+1)
- Data:** Connecting to the Data source, using Data sources, differences between using Data modules and Framework Manager packages on a report, using data shaping, creating reports using an SQL statement, using bursting. (5+1)

Suggested Text Books:

- IBM Cognos User Guide – IBM
- First Guide to Dashboards using IBM Cognos Analytics by Abhishek Sanghani

Suggested Reference Books:

- Going beyond Dashboards with IBM Cognos Analytics by Abhishek Sanghani
- IBM Cognos Business Intelligence by Dustin Adkison
- IBM Cognos 10 Report Studio Cookbook , by Ahmed Lashin , Abhishek Sanghani (Author)
- Cognos 8 BI for Consumers: A Step-by-step Introductory Guide to Cognos By Juan A. Padilla

Semester III		316BA- Predictive Modelling using SPSS Modeler
2 Credits	LTP: 2:0:0	Subject Elective (SE) Course – Business Analytics

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO316BA.1	REMEMBERING	DESCRIBE what Predictive Modeling is all about and know why you would want to use it
CO316BA.2	UNDERSTANDING	EXPLAIN the CRISP-DM methodology and the IBM SPSS Modeler Workbench
CO316BA.3	APPLYING	Explore, Prepare, Model and Evaluate your data using IBM SPSS Modeler
CO316BA.4	ANALYSING	ILLUSTRATE how to use modeling skills to make decisions.
CO316BA.5	EVALUATING	FORMULATE models based on trained data, test the model with historical data, and use qualifying models on live data or other historical untested data.
CO316BA.6	CREATING	SOLVE real world problems using predictive modeling techniques on a real-world data set

- SPSS Modeler Professional Functionality:** SPSS Overview, SPSS Modeler Overview, Palette, purpose and use, use of SuperNodes, advantages of SPSS Modeler scripting, Business Understanding and Planning, CRISP-DM process, mapping business objectives to data mining goals. (4+1)
- Data Understanding:** Appropriate nodes for summary statistics, distributions, and visualizations, graph nodes, output nodes, data quality issues, outliers and missing data. (3+1)
- Data Preparation:** Methods for data transformation, Derive node, Auto Data Prep node, Data Audit node and Filler node, how to integrate data - Merge node and Append node, sampling, partitioning, and balancing data - Sample node, Balance node and Partition node, methods for refining data - Select node, Filter node and Aggregate node. (6+1)
- Modeling:** Classification models - GLM and regression, segmentation models, association models, auto modeling nodes, how to combine models using the Ensemble node. (8+1)
- Evaluation and Analysis:** How to interpret SPSS Modeler results - using Evaluation node, Analysis node, and data visualizations, how to use model nugget interfaces, Deployment- how to use Export nodes - tools for exporting data, how to score new data using models, SPSS Modeler reporting methods. (4+1)

Suggested Text Books:

- IBM SPSS Modeler Essentials: Effective techniques for building powerful data mining and predictive analytics solutions by. Jesus Salcedo,. Keith McCormick

Semester III		317 BA- E Commerce Analytics - I
2 Credits	LTP: 2:0:0	Subject Elective (SE) Course – Business Analytics

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO317BA.1	REMEMBERING	DESCRIBE the key concepts in e-commerce analytics.
CO317BA.2	UNDERSTANDING	DEMONSTRATE the use of analytics to drive profitability throughout the organization, and across the entire customer experience and lifecycle.
CO317BA.3	APPLYING	SOLVE the unique problems in e-commerce, and transform data into better decisions and customer experiences.
CO317BA.4	ANALYSING	DISCOVER high-value insights via dashboards and visualization.
CO317BA.5	EVALUATING	DEVELOP analytical approaches to improve ecommerce marketing and advertising, understand customer behavior, increase conversion rates, strengthen loyalty, optimize merchandising and product mix, streamline transactions, optimize product mix, and accurately attribute sales.
CO317BA.6	CREATING	FORMULATE the right analytics driven strategy for ecommerce businesses.

- Ecommerce Analytics:** Role of Ecommerce Analytics in Creating Business Value and Driving Business Growth, The Ecommerce Analytics Value Chain, Identifying and Prioritizing Demand, Developing an Analytical Plan. Activating the Ecommerce Analytics Environment, Elements of an Ecommerce Analytics Environment, Collecting and Governing Data and Metadata. Preparing and Wrangling Data, Analyzing, Predicting, Optimizing, and Automating with Data, Socializing Analytics, Communicating the Economic Impact of Analytics. (5+1)
- Methods and Techniques for Ecommerce Analysis:** Understanding the Calendar for Ecommerce Analysis, Storytelling, Tukey’s Exploratory Data Analysis. Analyzing Ecommerce Data Using Statistics and Machine Learning. Key Performance Indicators for Ecommerce: KPI Metrics - Page or Screen Views, Visits or Sessions, Returns, Total Revenue and Revenue by N, Gross Margin, Lifetime Value, Repeat Visitors / Users / Customers. KPI Rate Metrics - Conversion Rate, Step Completion Rate, Abandoned Cart Rate; KPI Average Metrics - Average Order Value. KPI Derivative Metrics - Bounce Rate, Percentage of Orders with Promotions or Discounts, Inventory Turnover, Return on Investment, Loyalty—Time Since Last Visit (Recency), Retention—Time between Visits (Frequency). KPI Percentage Metrics - Percentage of X from Source N, Percentage of New Customers (or N Metric), KPI “Per” Metrics - Cost and/or Revenue per Visitor, Revenue per Customer, Cost per Customer Acquisition. (5+1)
- Visualizing, Dashboarding, and Reporting Ecommerce Data and Analysis:** Understanding Reporting, Explaining the RASTA Approach to Reporting, Understanding Dashboarding, Explaining the LIVEN Approach to Dashboarding, What Data Should I Start With in an Ecommerce Dashboard?, Understanding Data Visualization, The Process for Data

Visualization, Maximizing Impact with Data Visualization: The SCREEN Approach and More, Why Use Data Visualizations?, Types of Data Visualization. (5+1)

4. Ecommerce Analytics Data Model and Technology: Understanding the Ecommerce Analytics Data Model- Facts and Dimensions, Sample Ecommerce Data Model, Understanding the Inventory Fact, Understanding the Product Fact, Understanding the Order Fact, Understanding the Order Item Fact, Understanding the Customers Fact, Understanding the Customer Order Fact, Reviewing Common Dimensions and Measures in Ecommerce. (5+1)

5. Marketing and Advertising Analytics in Ecommerce: Understanding the Shared Goals of Marketing and Advertising Analysis, Reviewing the Marketing Lifecycle, Understanding Types of Ecommerce Marketing, Analyzing Marketing and Advertising for Ecommerce, What Marketing Data Could You Begin to Analyze? **Analyzing Behavioral Data:** Answering Business Questions with Behavioral Analytics, Understanding Metrics and Key Performance Indicators for Behavioral Analysis, Reviewing Types of Ecommerce Behavioral Analysis, Behavioral Flow Analysis, Shopping Behavior Analysis, Content Analysis, In-Page or On-Screen Behavior Analysis. (5+1)

Suggested Text Books:

1. Ecommerce Analytics: Analyze and Improve the Impact of Your Digital Strategy by Judah Phillips
2. Building a Digital Analytics Organization: Create Value by Integrating Analytical Processes, Technology, and People into Business Operations by Judah Phillips

Subject Core (SC) Courses - Semester IV
Specialization: Business Analytics

Semester IV		403 BA- Economics of Network Industries
3 Credits	LTP: 2:1:1	Subject Core (SC) Course – Business Analytics

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO403BA .1	REMEMBERING	APPRECIATE the differences in the nature of information goods as opposed to traditional goods and services.
CO403BA .2	UNDERSTANDING	DESCRIBE the characteristics of the markets for network products.
CO403BA .3	APPLYING	ILLUSRATE the characteristics of the cost structure of information goods and its implications for pricing of information goods w.r.t. price discrimination, versioning of information goods, and bundling
CO403BA .4	ANALYSING	COMPARE and CONTRAST the pros and cons of keeping products compatible, and strategic aspects of the decision regarding compatibility.
CO403BA .5	EVALUATING	EVALUATE the role of complementary products, compatibility and standards, switching costs and lock-in in network industries.
CO403BA .6	CREATING	DISCUSS the economics of Internet advertising, and the business model of zero pricing.

- Network Economics:** Introduction, information goods and services, traditional goods and services, Overview of Network Industries, Demand side economies of scale - Network externality, Supply side economies of scale - Increasing returns. Systems effect in information industry, Network effects in physical (telecommunication) and virtual (systems) networks; Internalizing the network externality – gateways, adapters and standards. (7+2)
- Analyzing the hardware & software industry:** Analyzing the hardware industry - Hardware Compatibility, Network externalities approach, The Components approach. Analyzing the software industry - Principles of Software Production, Determinants of Software variety, Software variety under hardware competition, Software Variety and Partial Compatibility, Software Piracy, Software Pricing and Market Segmentation. (7+2)
- Technology advance and standardization:** New Technology Adoption – Static Approach, Technology Revolutions – Dynamic Approach, patents, licensing and standardization in network industries.
- Industry Reviews- I:** Economics of the Telecommunication Industry, Interconnections, Broadcasting and Cable Television, Spectrum Allocation, Digital Convergence, Markets for Information – Information reproduction, Economics of Libraries, Pricing Information Goods. (7+2)
- Industry Reviews – II:** Banks and Money – Switching costs and Competition, ATMs, Media of Exchange as Networks. Airline Industry – Network Structure and Network Economies, Deregulation and Entry, Code Sharing Agreements. Social Intercation – Status Seeking versus Conformism, Conformity, Vanity and Price Competition, Economics of Entertainment Places, Gifts. Languages as Networks, Religious Affiliations as Networks. (7+2)

Suggested Text Books:

- The Economics of Network Industries by Oz Shy
- Information Rules: A Strategic Guide to the Network Economy by Carl Shapiro and Hal R. Varian

Semester IV		404 BA- Artificial Intelligence in Business Applications
3 Credits	LTP: 2:1:1	Subject Core (SC) Course – Business Analytics

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO404BA .1	REMEMBERING	IDENTIFY KNOWLEDGE associated and represent it by logical sequence and plan a strategy to solve given problem
CO404BA .2	UNDERSTANDING	UNDERSTAND AI's fundamental concepts and methods.

CO404BA .3	APPLYING	APPLY various machine learning algorithms on structured data to develop machine learning models.
CO404BA .4	ANALYSING	ACQUIRE advanced Data ANALYSIS SKILLS through algorithm and search processes.
CO404BA .5	EVALUATING	SELECT logical and functional process to develop the model
CO404BA .6	CREATING	CREATE SOLUTIONS for various business problems using AI techniques.

1. **Introduction to AI and Programming Tools:** Analytics Landscape, Complexity of Analytics, What Is Artificial Intelligence? Embedding AI into Business Processes, Basic Concepts of Artificial Intelligence Brain Science and Problem Solving, The History of AI, Benefits of AI Data Pyramid Property of Autonomy, The AI Revolution, Business Innovation with Big Data and Artificial Intelligence. AI and Predictive Analytics, Overlapping of Artificial Intelligence with Other Fields Ethics and Privacy Issues, Application Areas, AI and Society. Knowledge-Based Systems Knowledge Based Reasoning: Agents, Facets of Knowledge. (7)

2. **Logic and Inferences:** Formal Logic, Propositional and First Order Logic, Resolution in Propositional and First Order Logic, Deductive Retrieval, Backward Chaining, Second order Logic. Knowledge Representation: Conceptual Dependency, Frames, Semantic nets. Reasoning Systems for Categories, Reasoning with Default Information. Propositional Logic & Predicate logic - Syntax., Semantics , Computability and Complexity Applications and Limitations, Logic for Problem solving, Logic Programming with PROLOG , PROLOG Systems and Implementations, Execution Control and Procedural Elements, Constraint Logic Programming, Simple Examples (8)

3. **Problem Solving, Search and Game Techniques:** Problem solving with AI, Study and analysis of various searching algorithms, Local Search in Continuous Spaces, Searching with Non-deterministic Actions General Problem Solver, Gelernter's Geometry Theorem, STRIPS, ABSTRIPS, Search - Overview, Problem representation State-space representation, Problem-reduction representation, Uninformed Search - Blind state-space search, Breadth-First Search, Uniform-cost search, Depth-First Search, Iterative Deepening, Heuristic Search, Greedy Search , A★-Search ,IDA★-Search. Games with Opponents- Minimax Search, Alpha-Beta-Pruning Non-deterministic Games. Heuristic Evaluation Functions Game trees, optimal search for an optimal solution. Conditions for optimality: Admissibility and consistency, Optimality of A*, Optimization Problems: Hill-climbing search Simulated annealing, Local beam search, Recursive Best First Search, Pruning the CLOSED and OPEN Lists (10)

4. **Machine Learning and Data Mining:** Introduction - What is machine learning?, Supervised vs. unsupervised learning , Reinforcement Learning. Machine Learning Workflow, Learning Algorithms, Linear Regression k -Nearest Neighbor , Decision Trees, Feature Construction and Data Reduction ,Random Forest, k -Means Algorithm, Gradient Boosting, Analyzing Big Data Different Deep Learning Models, Auto encoders, Data Analysis, The Perceptron, a Linear Classifier, The Learning Rule, Optimization and Outlook , The Nearest Neighbor Method, Two Classes, Many Classes, Approximation, Case-Based Reasoning, Decision Tree Learning, Entropy as a Metric for Information Content, Learning of Appendicitis Diagnosis, Cross-Validation and Over fitting, Learning of Bayesian Networks, Learning the Network Structure, The Naive Bayes Classifier, Clustering ,Hierarchical Clustering, Data Mining in Practice (10)

5. **Natural language processing & Neural Networks:** Introduction to Natural Language Processing, Stages in NLP, NLP Models, Morphological Processing - Syntax and Semantics, Text Analytics, Sentiment Analysis, Syntactic Analysis (Parsing), Semantic interpretation, Discourse and pragmatic Processing, Text Classification, Implementation aspects of Syntactic Analysis (Parsing), Application of NLP in Machine Translation, Information Retrieval and Big Data Information Retrieval. Learning: Supervised, Unsupervised and Reinforcement learning. Use Cases of NLP, Applications of NLP in Business Customer Service, Reputation Monitoring. Market Intelligence, Sentiment Technology in Business. Artificial Neural Networks - Concept, Feed forward and Feedback ANNs, Error Back Propagation, Boltzmann Machine, Deep Neural Network and Tools, Hopfield Networks , Application to a Pattern Recognition Example, Neural Associative Memory , Linear Networks with Minimal Errors, Applications of Neural Network (10)

Suggested Text Books:

1. Introduction to Artificial Intelligence by Wolfgang Ertel, Springer, Translated by Nathanael Black
2. Artificial Intelligence by Elaine Rich, Kevin Knight and Nair, TMH
3. A First Course in Artificial Intelligence by Deepak Khemani, McGraw Hill Education(India)

Suggested Reference Books:

1. Artificial Intelligence: A Modern Approach by Stuart Russell and Peter Norvig, Pearson
2. Artificial Intelligence by Saroj Kausik, Cengage Learning
3. Artificial Intelligence by Dan W Patterson, Prentice Hall of India

Subject Elective (SE) Courses - Semester III
Specialization: Business Analytics

Semester IV		409 BA- E Commerce Analytics - II
2 Credits	LTP: 2:1:1	Subject Elective (SE) Course – Business Analytics

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO409BA.1	REMEMBERING	DESCRIBE the key concepts in e-commerce analytics.
CO409 BA.2	UNDERSTANDING	DEMONSTRATE the use of analytics to drive profitability throughout the organization, and across the entire customer experience and lifecycle.
CO409 BA.3	APPLYING	SOLVE the unique problems in e-commerce, and transform data into better decisions and customer experiences.
CO409 BA.4	ANALYSING	DISCOVER high-value insights via dashboards and visualization.
CO409 BA.5	EVALUATING	DEVELOP analytical approaches to improve ecommerce marketing and advertising, understand customer behavior, increase conversion rates, strengthen loyalty, optimize merchandising and product mix, streamline transactions, optimize product mix, and accurately attribute sales.
CO409 BA.6	CREATING	FORMULATE the right analytics driven strategy for ecommerce businesses.

- Optimizing for Ecommerce Conversion and User Experience:** The Importance of the Value Proposition in Conversion Optimization, Basics of Conversion Optimization: Persuasion, Psychology, Information Architecture, and Copywriting, Conversion Optimization Process: Ideation to Hypothesis to Post-Optimization Analysis, Data for Conversion Optimization: Analytics, Visualization, Research, Usability, Customer, and Technical Data, Science Behind Conversion Optimization, Succeeding with Conversion Optimization. (5+1)
- Analyzing Ecommerce Customers:** Customer Record in Ecommerce, Types of Customer Data to Analyze. Questioning Customer Data with Analytical Thought, Ecommerce Customer Analytics Lifecycle. Defining the Types of Customers, Reviewing Types of Customer Analytics. Segmenting Customers, Performing Cohort Analysis. Calculating Customer Lifetime Value, Determining the Cost of Customer Acquisition, Analyzing Customer Churn. Understanding Voice-of-the-Customer Analytics - Doing Recency, Frequency, and Monetary Analysis. Determining Share of Wallet, Scoring Customers, Predicting Customer Behavior, Clustering Customers, Predicting Customer Propensities, Personalizing Customer Experiences. (5+1)
- Analyzing Products and Orders in Ecommerce:** Ecommerce Orders, Order Data to Analyze, Metrics and Key Performance Indicators Relevant for Ecommerce Orders. Approaches to Analyzing Orders and Products. - Financial Analysis, Product and Item Analysis, Promotional Analysis, Category and Brand Analysis, Event and Goal Analysis, Path-to-Purchase Analysis, Funnel Analysis, Cluster Analysis, Up-Sell and Cross-Sell Analysis, Next-Best-Action Analysis. Analyzing Products in Ecommerce, Useful Types of Product Analysis for Ecommerce - Product Brand Analysis, Product Category Analysis, Customer Service Analysis, Product Returns Analysis, Social Media Product Analysis. Analyzing Merchandising in Ecommerce - Testing Merchandising Creative, Performing Inventory Analysis, Analyzing Product Offers, Determining the Optimal Price via Pricing Analysis, Understanding the Sales Impact of Merchandising, Analyzing Suppliers and the Supply Chain, Determining Effective and Profitable Markdowns, Promotions, and Discounts. (8+1)
- Attribution in Ecommerce Analytics:** Attributing Sources of Buyers, Conversion, Revenue, and Profit, Understanding Engagement Mapping and the Types of Attribution, The Difference between Top-Down and Bottom-Up Approaches to Attribution, A Framework for Assessing Attribution Software. (2+1)
- Integrating Data and Analysis to Drive Ecommerce Strategy:** Defining the Types of Data. Single-Channel to Omnichannel, Integrating Data from a Technical Perspective. Agile Versus Waterfall Delivery, Integration with Operational Data Stores, Integration with On-Premises Enterprise Data Warehouses. Integration with Cloud Data Sources, Integration with Data Lakes, Integration with Data Federation, Integration with Data Virtualization, Integrating Analytics Applications, Integrating Data from a Business Perspective. (5+1)

Suggested Text Books:

1. Ecommerce Analytics: Analyze and Improve the Impact of Your Digital Strategy by Judah Phillips
2. Building a Digital Analytics Organization: Create Value by Integrating Analytical Processes, Technology, and People into Business Operations by Judah Phillips

Semester IV		410BA: Healthcare Analytics
2 Credits	LTP: 2:0:0	Subject Elective (SE) Course – Business Analytics

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO410BA.1	REMEMBERING	DESCRIBE the key terms in healthcare data analytics
CO410BA.2	UNDERSTANDING	EXPLAIN the fundamental concepts in Health Care Analytics
CO410BA.3	APPLYING	ILLUSTRATE the use of specific tools and techniques to design effective ways of handling, retrieving, analyzing, and making use of healthcare data
CO410BA.4	ANALYSING	EXAMINE the issues associated with the applications of intelligent data acquisition, processing, and analysis of healthcare data
CO410BA.5	EVALUATING	EXPLAIN the perspectives of healthcare related opportunities for developing new analytical approaches.
CO410BA.6	CREATING	ADAPT healthcare data analytics for improving the health and well-being of people.

1. **Introduction to Healthcare Data Analytics:** Introduction, Healthcare Data Sources and Basic Analytics, Electronic Health Records, Biomedical Image Analysis, Sensor Data Analysis, Biomedical Signal Analysis, Genomic Data Analysis, Clinical Text Mining. Mining Biomedical Literature, Social Media Analysis, Advanced Data Analytics for Healthcare, Clinical Prediction Models, Temporal Data Mining, Visual Analytics, Clinico–Genomic Data Integration, Information Retrieval, Privacy-Preserving Data Publishing. Applications and Practical Systems for Healthcare, Data Analytics for Pervasive Health, Healthcare Fraud Detection, Data Analytics for Pharmaceutical Discoveries, Clinical Decision Support Systems, Computer-Aided Diagnosis, Mobile Imaging for Biomedical, Resources for Healthcare Data Analytics.
2. **Electronic Health Records:** History of EHR , Components of EHR , Administrative System Components, Laboratory System Components & Vital Signs, Radiology System Components, Pharmacy System Components, Computerized Physician Order Entry (CPOE). Clinical Documentation, Coding Systems, International Classification of Diseases (ICD), Current Procedural Terminology (CPT), Systematized Nomenclature of Medicine Clinical Terms (SNOMED-CT), Logical Observation Identifiers Names and Codes (LOINC), RxNorm, International Classification of Functioning, Disability, and Health (ICF), Diagnosis-Related Groups (DRG), Unified Medical Language System (UMLS). Digital Imaging and Communications in Medicine (DICOM), Benefits of EHR - Enhanced Revenue, Averted Costs, Additional Benefits, Barriers to Adopting HER, Challenges of Using EHR Data.
3. **Social Media Analytics for Healthcare:** Social Media Analysis for Detection and Tracking of Infectious Disease Outbreaks, Outbreak Detection, Using Search Query and Website Access Logs, Using Twitter and Blogs, Analyzing and Tracking Outbreaks, Syndromic Surveillance Systems Based on Social Media, Social Media Analysis for Public Health Research. Topic Models for Analyzing Health-Related Content, Detecting Reports of Adverse Medical Events and Drug Reactions, Characterizing Life Style and Well-Being, Analysis of Social Media Use in Healthcare , Social Media as a Source of Public Health Information, Analysis of Data from Online Doctor and Patient Communities.
4. **Visual Analytics for Healthcare:** Introduction to Visual Analytics and Medical Data Visualization, Clinical Data Types, Standard Techniques to Visualize Medical Data, High-Dimensional Data Visualization, Visualization of Imaging Data,. Visual Analytics in Healthcare, Visual Analytics in Public Health and Population Research, Geospatial Analysis, Temporal Analysis, Beyond Spatio-Temporal Visualization, Visual Analytics for Clinical Workflow, Visual Analytics for Clinicians, Temporal Analysis, Patient Progress and Guidelines, Other Clinical Methods, Visual Analytics for Patients, Assisting Comprehension, Condition Management, Integration into Healthcare Contexts.
5. **Fraud Detection in Healthcare:** Understanding Fraud in the Healthcare System, Definition and Types of Healthcare Fraud, Identifying Healthcare Fraud from Data. Types of Data, Challenges, Knowledge Discovery-Based Solutions for Identifying Fraud, Identifying Fraudulent Episodes, Identifying Fraudulent Claims - Bayesian Approach & Non-Bayesian Approaches to Identifying Fraudulent Claims. Identifying Fraudulent Providers, Analyzing Networks for Identifying Coordinated Frauds, Constructing a Provider Social Network, Relevance for Identifying Fraud, Temporal Modeling for Identifying Fraudulent Behavior, Change-Point Detection with Statistical Process Control Techniques, Anomaly Detection Using the CUSUM Statistic, Supervised Learning for Classifying Provider Profiles.

Suggested Text Books:

1. Healthcare Data Analytics Edited by Chandan K. Reddy & Charu C. Aggarwal, CRC press.
2. Healthcare Analytics Made Simple by Vikas Kumar, Packt Publishing
3. Healthcare Analytics: From Data to Knowledge to Healthcare Improvement by Hui Yang & Eva K. Lee
4. Healthcare Management and Administration, S.L. Goel, Deep & Deep Publications Pvt. Ltd. New Delhi.
5. Introduction To Health Care Management , Sharon B. Buchbinder , Nancy H. Shanks, Malloy Incorporation.

Semester IV		411 BA- Watson
2 Credits	LTP: 2:1:1	Subject Elective (SE) Course – Business Analytics

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO411BA.1	REMEMBERING	RECALL the key aspects of cognitive computing and Watson.
CO411BA.2	UNDERSTANDING	DESCRIBE & DISCUSS the conceptual components and practical aspects of a cognitive system.
CO411BA.3	APPLYING	MAKE USE OF Watson platform and its underlying technologies for natural language processing and question answering in particular.
CO411BA.4	ANALYSING	ILLUSTRATE the various use cases of Watson.
CO411BA.5	EVALUATING	EXPLAIN fundamentals of IBM Cloud and creating service instances.
CO411 BA.6	CREATING	BUILD a Customer Complaints Analyzer using Watson Natural Language Understanding.

1. **Introduction to cognitive computing:** Cognition, Cognitive system and its main features, why build cognitive systems? The eras of computing, differences between cognitive systems and traditional development, different computing paradigms for solving problems, changing focus from rules definition and development to data analysis and training, conceptual components of a cognitive system, overview of Watson as a cognitive system, brief history of Watson , current status of Watson and the way of using it. Impact of cognitive computing to our lives, Solving real life problems with cognitive systems, Cognitive computing and the future of jobs. (5+1)
2. **Cognitive business and IBM Watson:** Landscape of cognitive computing in the industry, Consumer market: Cognitive computing offerings, Enterprise market: Cognitive computing offerings, Delivering cognitive services: Cloud and open source projects/IBM Watson, Watson APIs: APIs available in IBM Cloud. High level categorization of API functionality, summary of natural language and empathy APIs, signal processing APIs, data analysis services, demos of the APIs, IBM Watson applied to industries, businesses, and science. (5+1)
3. **Introduction to question-answering systems:** The Jeopardy! Challenge, DeepQA system architecture, Exploring the DeepQA pipeline, Question analysis, Primary search, Hypothesis generation, Hypothesis and evidence scoring, Final merging and ranking. (5+1)
4. **Evolution from DeepQA to Watson Developer Cloud :** Why commercialize Watson, Refresher of DeepQA architecture, Evolution to Watson Developer Cloud, Evolution of question analysis, Micro-services and robust tooling evolved from DeepQA, Watson Conversation service, Watson Discovery service, Evolution summary. (5+1)
5. **Domain adaptation:** Introduction to domain adaptation, IBM Watson Developer Cloud and domain adaptation, Watson Conversation, Watson Language Translator, Watson Natural Language Classifier, Watson Retrieve and Rank, Watson Visual Recognition, Watson Speech to Text, Watson Text to Speech, Watson Natural Language Understanding, Watson Discovery, Watson Knowledge Studio domain adaptation overview. Creating a machine learning model, Deploying a machine-learning annotator to Watson Natural Language Understanding, Deploying a machine-learning annotator to Watson Discovery. (5+1)

Suggested Text Books:

1. IBM's Watson and the Era of Cognitive Computing by Kelly, John E., and Steve Hamm, Columbia Business School Publishing.

Suggested Reference Books:

1. Cognitive Computing: A Brief Guide for Game Changers by Finger, Peter. , Meghan-Kiffer Press.
2. Life 3.0: Being Human in the Age of Artificial Intelligence by Max Tegmark., Knopf
3. Artificial Intelligence for Humans: Deep Learning and Neural Networks, Heaton, Jeff.

Semester IV		412 BA- Scala and Spark
2 Credits	LTP: 2:0:0	Subject Elective (SE) Course – Business Analytics

Course Outcomes: On successful completion of the course, the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO412BA.1	REMEMBERING	DESCRIBE the ecosystem associated with SCALA and SPARK.
CO412BA.2	UNDERSTANDING	ILLUSTRATE the use of SPARK and SCALA.
CO412BA.3	APPLYING	USE the core RDD and DataFrame APIs to perform analytics on datasets with Scala.
CO412BA.4	ANALYSING	EXAMINE how and when it differs from familiar programming models
CO412BA.5	EVALUATING	READ data from persistent storage and load it into Apache Spark.
CO412BA.6	CREATING	MANIPULATE data with Spark and Scala

- 1. Scala:** What is Scala? Why Scala for Spark? Scala in other frameworks Introduction to Scala REPL, Basic Scala operations, Variable Types in Scala, Control Structures in Scala, Foreach loop Functions, Procedures, Collections in Scala- Array, Array Buffer, Map, Tuples, Lists. **Spark Core:** Introduction, Introduction to big data, Challenges with big data, Batch Vs. Real Time big data analytics, Batch Analytics - Hadoop Ecosystem Overview, Real-time Analytics. (7+1)
- 2. What is Spark?** : Spark Ecosystem, Modes of Spark, Spark installation demo, Overview of Spark on a cluster, Spark Standalone cluster, Spark Web UI, Components of Spark Unified stack, Spark Streaming, Mllib, Core, Spark SQL, RDD - The core concept of Spark RDDs, Transformations in RDD, Actions in RDD. Loading data in RDD, Saving data through RDD, Key-Value Pair RDD, MapReduce and Pair RDD, Operations Scala and Python shell Word count, example Shared Variables with examples, Submitting jobs in cluster, Hands on examples. (5+1)
- 3. Spark SQL:** Overview, Hive and Spark SQL architecture, sqlContext in spark sql, Dataframes API, Understanding concept of data frame, Loading data in dataframe, Operations on dataframes. Interaction with Hive, Reading various data formats Hands on Examples.(4+1)
- 4. Spark Streaming:** Overview of streaming, Spark Streaming Architecture, First Spark Streaming Program, Transformations in Spark Streaming, checkpointing, Parallelism level, Introduction to queuing systems. Eg. Kafka, Hands on examples. (4+1)
- 5. Spark Mllib:** Supervised Learning, Classification - logistic regression, decision trees, random forests, naive Bayes, Regression - linear least squares, Lasso, ridge regression, decision trees, Unsupervised learning : Clustering - K-means, Gaussian Mixture, Dimensionality reduction – PCA, Hands on examples. (5+1)

Suggested Text Books:

1. Scala and Spark for Big Data Analytics: Explore the Concepts of Functional Programming, Data Streaming, and Machine Learning by Md. Rezaul Karim and Sridhar Alla
2. Programming in Scala by Bill Venners and Martin Odersky

Suggested Reference Books:

1. Scala Cookbook: Recipes for Object-Oriented and Functional Programming by Alvin Alexander
2. Scala in Depth by Josh Suereth

Syllabus for Rural & Agri Business Management (MINOR ONLY SPECIALIZATION)
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Semester III		SC – RABM – 01 Agriculture and Indian Economy
3 Credits	LTP: 2:1:1	Rural & Agri Business Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
RABM01.1	REMEMBERING	DEFINE the key terms in Indian Agriculture/Land Reforms/ economic holding.
RABM01.2	UNDERSTANDING	EXPLAIN the key terms in The place of agriculture in the national economy/ The present position of Indian Agriculture with an advanced management perspective.
RABM01.3	APPLYING	IDENTIFY the various issues in the Agriculture Industry in India. DEMONSTRATE their significance from the perspective of Indian farmer & Indian Economy & business decision making.
RABM01.4	ANALYSING	EXAMINE the inter-relationships between various facets of Agriculture & economy from the perspective of a farmer, Labour, firm, industry, market, competition and business cycles.
RABM01.5	EVALUATING	DEVELOP critical thinking based on changing pattern of ownership and operational holdings in India, Farms size, Productivity/ Profitability and farm efficiency
RABM01.6	CREATING	ANTICIPATE how other firms in an industry and consumers will respond to economic decisions made by a business, and how to incorporate these responses into their own decisions.

1. **Indian Agriculture under the Five Year Plans :** The Green Revolution, The place of agriculture in the national economy, progress of agriculture under the Five Year Plans, Present position of Indian Agriculture : Looming Crisis, New Thrust Areas in Agriculture, National Commissions of Farmers and Green Revolution, Crop Pattern in India since 1951.
2. **Food Security in India:** Green Revolution, Second Green Revolution – the future prospects, Concept of Food Security , Food self-sufficiency and food security, Poverty and need for Public Distribution Systems, Policy Options for reforms of PDS, Food Insecurity at Global level, Food Security Act – Salient features and implications.
3. **Irrigation and other agricultural inputs:** Irrigation, multipurpose river valley project - a controversy, irrigation in the 12th plan, private sector participation in irrigation, fertilizers and manures, improved seeds, soil conservation and reclamation, livestock and dairy development, mechanization of agriculture
4. **Land Reforms:** The need and scope for land reforms in a developing economy, the abolition of intermediaries, tenancy reforms, ceiling on land holdings, an appraisal of land reforms. Size of Farms and Productive Efficiency: Meaning of economic holding, changing pattern of ownership and operational holdings in India, Farms size, Productivity/ Profitability and farm efficiency, the problem of sub division and fragmentation of holdings, cooperative farming.
5. **Agriculture Labour:** Present position of agricultural Labour in India, Agricultural Labour and Minimum Wages, Abolition of Bonded Labour, Recommendations of National Commissions on Rural Labour (NCRL)

Suggested Text Books:

1. Indian Economy, Datt and Sundharam, S Chand
2. Indian Economy Since Independence, edited by Uma Kapila, Academic Foundation
3. Indian Agriculture - issues and perspectives, Edited by N Janardhana Rao, ICFAI University Press

Suggested Reference Books:

1. Adhikary M. 1986. *Economic Environment of Business*. S. Chand & Sons.
2. Aswathappa K. 1997. *Essentials of Business Environment*. Himalaya Publications
3. Francis Cherunilam 2003. *Business Environment*. Himalaya Publications

Semester IV		SE – RABM – 02 ICT for Agriculture Management
3 Credits	LTP: 2:1:1	Rural & Agri Business Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
RABM02.1	REMEMBERING	RECALL the basic terminologies related to ICT
RABM02.2	UNDERSTANDING	UNDERSTAND the use of ICT with different aspects & various issues & challenges for ICT information services
RABM02.3	APPLYING	Apply the GIS Applications in micro resource mapping
RABM02.4	ANALYSING	ANALYZE the different tools and techniques used under ICT in Agriculture Management
RABM02.5	EVALUATING	EVALUATE the common ICT platforms for information services
RABM02.6	CREATING	CHOOSE the right ICT as per the requirement of agriculture activity

1. Introduction : Basic terminology, Leapfrogging technology – the mobile phone, ICT and its ramifications for rural economies, Scope of ICT in Indian Agriculture, Introduction to various ICT-enabled rural services related to land, education, health, insurance, micro-credit, marketing, etc. Village Resource Centre (VRC), Common resource Centre (CRC), Tele- education, community radio, etc. Potential impact

2. ICT for production systems management : Scope of ICT in agriculture production, Applicability and challenges of ICT in logistic and supply chain systems, ICT application in risk management, ICT tools for an agricultural extension activity, new technology application in operation management e.g. barcode, RFID, QR code, etc.,

3. ICT for market access: Types of market access ICT service, Pricing services, Scope of e-auction in agriculture marketing, E-commerce in Agriculture and advantages of E-commerce in Agriculture over the traditional market, Issues and challenges for market access ICT services, Advantages of and opportunities for market access ICT services

4. ICT for financial inclusion: Types of financial inclusion, ICT services, Transfers and payments, Agricultural credit, Savings for agricultural needs, Agriculture Insurance, Various government schemes e.g., PMJDY, PMJJY, etc., Bank Business Correspondence scheme and its impact on Rural areas, Issues and challenges for ICT financial inclusion services, and Advantages of and opportunities for ICT financial inclusion services.

5. Overview of Geographical Information Systems (GIS): Remote Sensing and Image Processing, GPS, GIS Data Modeling, Geographical Information Systems, Issues and Concerns in Land and Water Management, The GIS Approach. Planning and implementing a GIS; Case studies on GIS; GIS and Precision farming; GIS Applications in micro resource mapping, principles in micro-planning, modeling in resource mapping GIS Technology trend and next generation Systems.

Suggested Text Books:

1. Sustainable Agriculture, edited by A. Bandyopadhyay, Bhoovigyan Vikas Foundation
2. Concepts and Techniques of Geographic Information Systems , Lo, C.P. and Yeung, A.K.W. (2002)., Prentice Hall.
3. E- Governance Concepts and case Studies- C.S.R Prabhu , Prentice Hall of India

Suggested Reference Book:

1. Cases on Developing Countries and ICT Integration: Rural Community Development ,edited by Rebecca Nthogo Lekoko, Ladislaus M. Semali, IGI
2. Fundamentals of Geographic Information Systems. DeMers, M.N. (1999) 2nd Ed., Wiley Press.
3. Principles of Geographical Information Systems Burrough, P.A. and R.A. McDonald (1998), Oxford University Press

Semester III		SE – RABM – 03 Rural Credit and Finance
2 Credits	LTP: 1:1:1	Rural & Agri Business Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
RABM03.1	REMEMBERING	RECALL the Role of Credit in Agriculture & Role of Agriculture in Economic Development
RABM03.2	UNDERSTANDING	UNDERSTAND the concept and special features of co-operative banking, Structure of the co-operative credit system in India
RABM03.3	APPLYING	Apply the theories of Agricultural finance with concept of credit
RABM03.4	ANALYSING	ANALYZE Players and Approaches in Microfinance & Rural Finance.
RABM03.5	EVALUATING	EXPLAIN the triangle of microfinance and the role of BDS in rural finance.
RABM03.6	CREATING	Develop a plan to create awareness about different rural finance schemes

1. Role and Characteristics of Indian Agriculture: Introduction, Role of Agriculture in Economic Development, Characteristics of Indian Agriculture.

2. Critical Review of Agricultural Finance: Role of Credit in Agriculture, Agricultural Finance in India, Classification of Agricultural Finance, Significance of Co-op. Credit, Some Issues of the Present System. **Financial Intermediaries In Agriculture:** Functions, Structure and Performance.

3. Cooperative Banks: Concept and special features of co-operative banking, Structure of co-operative credit system in India, Primary Level Credit Institutions (PACs, LAMPs. MPCS, FSS) their functioning and problems, District Central Cooperative Banks Structure and functions , Apex Co-operative Banks Structure and functions , Impact of liberalization on Co-operative Banks with particular reference to de regulation of interest rates and prudential norms

4. Theories of Agricultural Finance: Risk and Uncertainty Theory, Demand and Supply Theory, Business Vs. Social and Moral Theory, Cost Theory, Productive Vs. Consumption, – The concept of 3 C's, 7 P's and 3 R's of credit, Credit Analysis, Kind Loans Vs. Cash Loans, Principle of Micro- and Macro-Finance, Principle of Supervised Credit, Principle of Crop Loan, Principle of Co-op. Credit, Principle of Better Credit.

5 Rural Finance and Microfinance: Players and Approaches; Microfinance& Rural Finance – Lessons from microfinance and historical interventions, Rural finance: approach, delivery channels and actors involved, and linkages, Triangle of microfinance and the role of BDS in rural finance.

Suggested Text Books:

1. Agricultural Development Rural Credit And Problems Of Its Recovery, By A. Ranga Reddy, Mittal Publications

Suggested Reference Book:

1. Theories of Agricultural Finance, Jugale, Atlantic Publishers
2. Barry, P.J., and P.N. Ellinger. Financial Management in Agriculture. 7th ed. Pearson Education, Inc., 2012.
3. Ross, S.A., R.W. Westerfield, B.D. Jordan. "Essentials of Corporate Finance. The McGraw-Hill/Irvin, 2011.
4. Keown, A.J., J.D. Martin, J.W. Petty, and D.F. Scott. Foundations of Finance. 7th ed. Prentice Hall, 2010.

Semester IV		SC – RABM – 04 Rural Marketing – I
2 Credits	LTP:1:1:1	Rural & Agri Business Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
RABM04.1	REMEMBERING	RECALL and REPRODUCE the various concepts, principles, frameworks, and terms related to the function and role of marketing in Rural areas.
RABM04.2	UNDERSTANDING	DISCUSS the Rural versus Urban Marketing concept and ILLUSTRATE the role that marketing plays in the 'tool kit' of a Rural Marketer
RABM04.3	APPLYING	APPLY the models of consumer behavior in the rural market
RABM04.4	ANALYSING	EXAMINE and LIST different aspects of segmentation, targeting and positioning, marketing environmental forces, consumer buying behavior, in the context of rural marketing
RABM04.5	EVALUATING	EVALUATE the challenges of Rural marketing research with different approaches and tools
RABM04.6	CREATING	CREATE a new consumer behavior model on the rural consumer with the help of cases with rural marketing experiences

1. Rural Marketing Opportunities: What is a Rural Market?, Taxonomy of the Rural Market, Go Rural Decision, Rural Inhibiting factors, Approach Decision: Rural Marketing Models, Bottom of the Pyramid Approach, Integrated, Innovation and Inclusive – Growth Model, Evolution and Scope, Rural versus Urban Marketing, Becoming a Rural Marketer, Testing rural marketing potential.

Understanding the Rural Economy: Rural marketing Environment, social environment, economic environment, technological environment, innovations, political environment and development initiatives, implications on rural marketers

2. Rural marketing experiences: Case of HUL – Project Shakti, Case of CFCL – Uttam Bandhan, Case of ITC – e-Choupal, Case of Colgate – Education, Case of HLL – Social Marketing, lessons from experience

3. Rural Consumer Behavior: Rural consumer on the growth, models of consumer behavior, buying decision process, Opinion Leaders, Environmental factors influencing the decision making process, buyer characteristics, buying behavior patterns, brand loyalty, innovation adoption

4. Rural Marketing Research: Significance of information, sources of information, marketing research – key decisions, approaches and tools – case for innovation, participatory approaches, innovative tools, rural versus urban marketing research, rural research business, challenges in rural marketing research.

5. Selecting and Attracting Markets: Concepts and process, case for segmentation, bases for segmentation, emerging segments – women and youth, guides to effective segmentation, targeting, positioning, Case Study.

Suggested Text Books:

1. Rural Marketing – Text and Cases, Krishnamacharyulu and Ramakrishnan, Pearson
2. Rural Marketing – Concept and Practices, Dogra and Ghuman, TMGH
3. Rural Marketing, Velayudhan, Sage
4. Rural Marketing, Gopaldaswamy, Vikas Publishing house
5. Rural Marketing in India, Habeeb - ur – Rahman, Himalaya Publishing House
6. Rural Marketing Text and Cases, S L Gupta, Wisdom Publications

Suggested Reference Book:

1. Singh AK & Pandey S. 2005. Rural Marketing. New Age. Singh Sukhpal. 2004.
2. Rural Marketing. Vikas Publishing House.

Semester IV		SE – RABM – 05 Agri – Entrepreneurship
2 Credits	LTP: 1:1:1	Rural & Agri Business Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
RABM05.1	REMEMBERING	DEFINE the term rural entrepreneurship and ENUMERATE factors that support women’s participation in rural entrepreneurship
RABM05.2	UNDERSTANDING	UNDERSTAND the Process of entrepreneurship, aims, and barriers
RABM05.3	APPLYING	APPLY different ICT in Rural entrepreneurship development.
RABM05.4	ANALYSING	Analyze the importance of IT in rural India and role of entrepreneur in rural development.
RABM05.5	EVALUATING	EVALUATE the rural capabilities, Endowment of Skill sets and Natural resources in rural India
RABM05.6	CREATING	Design the business plan, factors considering rural development & Rural BPO

- 1. Rural Entrepreneurship:** Concept of rural entrepreneurship, Endowment of Skill sets and Natural resources in rural India, aims of rural entrepreneurship, barriers to entrepreneurship in rural India.
- 2. Skill Development:** Process of entrepreneurship, rural applicability, skills required to succeed, Government training programmes and PublicPrivate Partnership
- 3. Women Entrepreneurship:** Primary goals for development, Women’s role in economy, factors that support women’s participation in rural entrepreneurship.
- 4. ICT and Rural Entrepreneurship:** Rural ICT initiatives, Need to create rural ICT entrepreneurs, how IT is changing rural India, Rural BPO.
- 5. Case study;** Corporate intervention and entrepreneurship Development.

Suggested Text Books:

Entrepreneurship Development – Theories and Practices – By N.P.Singh

Suggested Reference Book:

1. Projects : Profile and process – Vasant Desai
2. Entrepreneurship and echnology – Vasant Desai
3. Economic Environment in Business – By Misra and Puri
4. Women Entrepreneurs – By Deepak Walokar

Semester IV		SE – RABM – 06 Rural Marketing II
2 Credits	LTP: 1:1:1	Rural & Agri Business Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
RABM06.1	REMEMBERING	DESCRIBE the key terms associated with the Strategies of marketing.
RABM06.2	UNDERSTANDING	COMPARE and CONTRAST various approaches to pricing for a real world marketing offering in both rural and urban markets
RABM06.3	APPLYING	DEMONSTRATE an understanding of Framework of IMC
RABM06.4	ANALYSING	EXAMINE the various distribution Strategies of a real-world marketing offering
RABM06.5	EVALUATING	EXPLAIN the rising organized rural retailing, malls & Government initiatives
RABM06.6	CREATING	DESIGN the Promotion Strategy in rural marketing

1. Product Strategy: Product decisions, product classifications, product strategy levels, significance of product strategy, product strategies : assessment of acceptability, product design decisions, types of product strategies, product innovation strategies, customer value strategies, product identity strategies – branding, product identity strategies – packaging, brand building strategies, product lifecycle strategies, fighting fakes.

2. Pricing Strategy: Concept and significance, pricing objectives, pricing policy, pricing strategy – the affordability challenge, rural versus urban, needs integrated approach, pricing for the quality conscious segment, value conscious segment and price conscious segment , Pricing and environmental factors, pricing for competition, pricing by retailers, pricing and product lifecycle .

3. Distribution Strategy: Distribution – The Availability Challenge, Distribution Practices, Distribution Trends, Rural Logistics, Rural Coverage Decision, Geographical Information System for Planning Rural Coverage, Distribution decision – Direct Versus Indirect, Direct Marketing, Indirect Marketing.

4. Rural Retailing: The rise of organized retailing, types of retail outlets, role of retailers, rural malls, Government initiated retail outlets, entrepreneur founded malls, agri company retail outlets, retail outlets of petro-chemical companies, retailing by urban players, PPP models, E Tailing, Training Retailers.

5. Promotion Strategy: IMC – Concept and Management Awareness and Motivation Challenge, Objectives and Framework of IMC, Promotional Mix, Communication Process, Communication Media, Designing the Communication Strategy, IMC Strategy, Rural Advertising.

Suggested Text Books:

1. Rural Marketing – Text and Cases, Krishnamacharyulu and Ramakrishnan, Pearson
2. Rural Marketing – Concept and Practices, Dogra and Ghuman, TMGH

Suggested Reference Book:

1. Rural Marketing, Velayudhan, Sage
2. Rural Marketing, Gopaldaswamy, Vikas Publishing house
3. Rural Marketing, Badi and Badi, Himalaya Publishing House

Syllabus for Pharma & Health Care Management (MINOR ONLY SPECIALIZATION)

Semester III		SC-PHCM- 01 Fundamental of Pharma and Healthcare Management
3 Credits	LTP: 2:1:1	Pharma and Healthcare Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
PHCM01.1	REMEMBERING	DESCRIBE concept of Pharma and healthcare management and FIND out the different role and responsibilities of managers.
PHCM01.2	UNDERSTANDING	UNDERSTAND the different managerial functions of managers
PHCM01.3	APPLYING	IDENTIFY right the motivation for right stakeholder in the healthcare sector for effective delivery of service.
PHCM01.4	ANALYSING	ANALYZE modern Pharma and Healthcare models
PHCM01.5	EVALUATING	EXPLAIN government initiatives to provide healthcare facilities in each part of country
PHCM01.6	CREATING	CONSTRUCT model to provide effective service in healthcare management

1. Introduction: Introduction of Pharmaceutical Industry, Health Care Management, Classical Management & Healthcare Services. Concept of Health Care Industry & its ever-changing character, Managerial activities for effective functioning, Duties and responsibilities of Managers, Qualities of effective Managers

2. Health Systems in India: Health planning in India including various committees and National Health Policy and Health Goals set from time to time. Organised sector with reference to Centre, State, District and Block level structures and local bodies and Panchayati Raj Organisation and functions of community health centres and Primary Health Centres (PHCs). Health Manpower, Primary Health care and concept, Alternative systems of medicine, like Ayurveda, Homeopathy, etc. Holistic Approach Non-Governmental Organisations (NGOs) and Private Voluntary Organisations (PVOs). Unorganized Sector.

3. Human Resource Management in Pharma and Healthcare Organization: Recruitment process, Training and development , Managerial Role: A Framework for Thinking as well as in Practices. Concept of Motivation, Significance of Motivating People in Health Care Delivery. Different Motivational Theories. Groups and Teams Organizational Learning, Innovation and Change,

4. Pharma and Healthcare marketing: Marketing Mix in Pharma and Healthcare, STP, CRM Concept, Role and Significance of Customer Relationship Management (CRM) in Pharma and Healthcare industry.

5. Modern Pharma and Healthcare models- Medical tourism, Tele Diagnosis and Tele medicine, Artificial Intelligence in Pharma and Healthcare, Use of Robotics in Pharma and Healthcare, Organised formats of Hospitals, Diagnostics and Chemist chain.

Suggested Text Books:

1. Organizing Design and Behavior in Health Care Services: Stephen M. Shortell, Arnold D. Kaluzny: CENGAGE Lernings
2. Healthcare Management Ruchi Singh Himalaya Publishing House.

Suggested Reference Books

1. Hospital Management by S. M. Jha
2. Organization Design and Behavior in Health Care Services: Cengage Learning Stephen M Shortell

Semester IV		SC-PHCM- 02 Pharma and Healthcare regulatory environment in India
3 Credits	LTP: 2:1:1	Pharma and Healthcare Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
PHCM02.1	REMEMBERING	IDENTIFY various environmental factors affecting on Pharma and Healthcare industry
PHCM02.2	UNDERSTANDING	UNDERSTAND various laws applicable to Pharma and Healthcare industry
PHCM02.3	APPLYING	Understand the situation and identify right legal way to solve the problem.
PHCM02.4	ANALYSING	ANALYSE steps involved in Intellectual Property Rights registrations
PHCM02.5	EVALUATING	CHOOSE the right type of IPR as per the content and work available to protect.
PHCM02.6	CREATING	Elaborate the different laws developed by constitutions to support and protect Pharma and Healthcare sector

1. Environmental Scanning: Economic Environment, Competitive Environment, Political Legal Environment, Socio Cultural Environment, International and Technological Environment.

2. General Laws: General Law of Contract: Essentials of a Contract – Offer and acceptance – Capacity of Parties Free Consent – Consideration and legality of object – Void argument and Contingent Contract, Law of privileged communications.

3. Introduction of Laws applicable to Hospitals: Functioning of hospitals and Medico – legal responsibilities cases and problems, Medico- Legal Problems in relation to health administration, Provision of commissioning of hospitals: Registration of companies act 2013 with reference to Incorporation of hospitals as a company, Indian medical council act 1956

4. Laws related to drugs and Pharmacy: Narcotic Drugs and Psychotropic Substances Act and Rules, Drugs and Cosmetics Act, 1940 , (Blood bank regulations under Drugs and cosmetic rules), Pharmacy Act 1948 Consumer Protection Act – Definition, Consumer Protection Council, Consumer Disputes Redressal Agencies – Other Salient features – Application of Consumer, Protection Act in Hospital, Recent judgment of Supreme Court, Implication for Health Professionals

5. Role of IPR in Pharma Business: Intellectual Property Rights: Ideas to Assets, Types of IPR , their term, criteria and relevance: Patent, Trademarks, Design, Copyright, Trade secrets

Suggested Text Books:

1. New Drug Approval Process, edited by Richard A. Guarino
2. The Pharmaceutical Regulatory Process, edited by Ira R. Berry
3. Medical Product Regulatory Affairs, edited by J. J. Tobin and G. Walsh
4. Pharmaceutical Jurisprudence by G K Jani
5. Official websites related to various guidelines - www.ICH.Org 73 NIPER HYDERABAD
6. Compliance Quality Standards in the Pharmaceutical and Regulated Industries,
7. FDA Regulatory Affairs, edited by Douglas J. Pisano
8. The Pharmaceutical Regulatory Process edited by Ira R. Berry, Marcel Dekker.

Suggested Reference Books

1. The Pharmacy Act, 1948.
2. The Drugs and Cosmetics Act, 1940.
3. The Drugs and Magic Remedies (Objectionable Advertisement Act), 1954.
4. DPCO, 1995.
5. Patents Act, 2005/
6. Infant Milk substitutes, feeding bottles (Regulations of production, supply and distribution Act, 1992).
7. Clinical trial application requirement in India.
8. IND, NDA, ANDA application in Indian context.
9. Prevention of Food Adulteration Act. 10. Narcotics Drugs and Psychotropic Substance, 1985. 11. Latest amendments to the Drugs & Cosmetics Act. Recommended books:

Semester III		SE-PHCM- 03 Strategic Planning & Healthcare Management
2 Credits	LTP: 1:1:1	Pharma and Healthcare Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
PHCM03.1	REMEMBERING	DEFINE strategy and DESCRIBE various types of Strategic planning
PHCM03.2	UNDERSTANDING	EXPLAIN why Vision Mission needs to consider for strategy formulation
PHCM03.3	APPLYING	USE strategic planning to solve the management problem in healthcare management
PHCM03.4	ANALYSING	ANALYSE various management problem where it is required to take strategic actions.
PHCM03.5	EVALUATING	COMPARE various strategic formulations and the select right strategy
PHCM03.6	CREATING	Understand the problem and DEVELOP strategy to solve it.

- 1. What is strategy:** Strategy defined, Types of strategies, What strategy should achieve for an organization, The imperatives of strategy, Strategy Map
- 2. Strategy focus:** Tie strategy to the mission and vision of the organization, environmental and competitor challenges, Vision – Mission and goals of the Healthcare organization.
- 3. Strategic formulation:** Strategic formulation and implementation for Healthcare organizations, importance and effects of Blue ocean and Red ocean strategies in Healthcare.
- 4. Strategic Thinking:** Methods and Models for Strategic Analyses, tools to evaluate the internal and external environment of Healthcare Industry.
- 5. Mapping and Managing a Strategy:** a strategy “scorecard”, Financing a Strategy, returns on strategic investments

Suggested Text Books:

1. Kim,W Chan, Mauborgne, Renée, Blue Ocean Strategy,
2. Strategic Management by Jeyarathnam Himalays Publication

Suggested Reference Books

Strategic Management and Business Policy by Dr. Azahar Kazmi.

Semester III		SE-PHCM- 04 Information Technology in Pharma and Healthcare
2 Credits	LTP: 1:1:1	Pharma and Healthcare Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
PHCM04.1	REMEMBERING	IDENTIFY the different types of information required in Pharma and Healthcare system
PHCM04.2	UNDERSTANDING	DESCRIBE the different types of Networks and structure require to establish computerize system in daily operations
PHCM04.3	APPLYING	Identify the different Integrated Health information Systems used by different Pharma and Healthcare companies
PHCM04.4	ANALYSING	SIMPLIFY the process to maintain an electronic record, its analysis, and Presentation for decision making
PHCM04.5	EVALUATING	DETERMINE the various components require to develop Hospital Information Systems (HIS)
PHCM04.6	CREATING	DEVELOP architecture for routine business activities in pharma and healthcare sector

1. Introduction to information: Scope, Components of hardware and software. Health Care Informatics: Introduction, Standardized languages in practice. Health IT Architecture: Information Technology architecture models in healthcare organizations, Service-oriented structures. Concept of biosignal processing and Medical Imaging.

2.IT Structure: Computer Networks- LAN, WAN, ISDN, VSAT. The Internet- structure, role in Medicine. Mobile IT devices in healthcare. Telemedicine and applications- Architecture of major telemedicine systems in India. Information compression, storage and transmission standards, wireless telemetry,

3. Regulations & Standards: Necessity of standards for electronic health, security issues, cyber laws, ethical and medico legal issues in patient information exchange. Healthcare Information Regulations & Standards: Legal Aspects of Managing Health information, Health records and Privacy, Health Level standards- HL7. Integrated Health information Systems.

4. Introduction to medical databases: Electronic Medical Record, Electronic Health Record. National and International regulations. Data collection, Data analysis, Data Presentation in Medical systems. Systems Implementation and Integration, Interface Engine. Patient registries/patient portals/Health information exchange.

5. Hospital Information Systems : Definition, Structure and Application, system Advantages. Nursing Informatics, Automated clinical laboratory systems. Pharmacy information system. Electronic Health- overview, implementation of various systems.

Suggested Books:

1. Management Information Systems by Kenneth C. Laudon
2. Information Systems for Modern Management by Robert G. Murdick
3. Fundamentals of Information Systems, Second Edition by Ralph M. Stair and George Walter Reynolds
4. Management Information system "Jayadevan".

Semester IV		SE-PHCM- 05 Pharmaceutical Import and Export
2 Credits	LTP: 1:1:1	Pharma and Healthcare Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
PHCM05.1	REMEMBERING	DEFINE the various concepts related to import and export procedure
PHCM05.2	UNDERSTANDING	DISCUSS various steps involved in export procedures of pharmaceutical product
PHCM05.3	APPLYING	IDENTIFY the international market for pharmaceutical product
PHCM05.4	ANALYSING	ANALYZE different payments methods used in international trade
PHCM05.5	EVALUATING	DETERMINE various rules and regulations related to export procedures of pharmaceutical product
PHCM05.6	CREATING	CHOOSE right product for the right International market.

1. Significance of procedures and documentation in international trade; procedures and documentation as trade barriers; WTO provisions; Aligned Documentation System (ADS); official machinery for trade procedures and documentation; ITC(HS) classification System ;Role of ICC; INCOTERMS; nature of export/trading houses.

2. Export order processing; export contract; export price quotations; shipping and custom clearance of export and import cargo; central excise clearance; main export and import documents; Role of forwarding agents; cargo insurance and claim procedure.

3. Methods of payment in international trade; documentary collection of export bills; UCPDC guidelines; realization of export proceeds – provisions of RBI’s Exchange Control Manual; pre-shipment and post-shipment finance; role of EXIM bank and ECGC in India.

4. Major export promotion schemes in India – EPCGS, duty exemption scheme; DEPB scheme; SIL; facility for deemed exports; Export promoting institution’s – role of export promotion councils, commodity boards and ITPO.

5. Regulations for International Trade: Major laws governing India’s export import trade- Foreign Trade (Development & Regulation) Act, Pre-shipment Inspection & Quality Control Act, 1963 & Customs Act, 1962; Foreign Exchange Management Act, 2000

Suggested Text Books:

Export Import Procedures & Documentation by Dr. Kushpat S. Jain, HPH, 5th Revised Edition, Aug. 2007

Export Marketing by B. S. Rathor & J. S. Rathor, HPH, 3rd Revised & Enlarged Edition, 2006

Export Management by T. A. S. Balagopal, HPH, 18th Revised Edition, 2006

Export Management by D.C. Kapoor, Vikas Publishing House, 2009

Export- Policy, Procedures and Documentation by M. I. Mahajan, Show white, 24th Edition, 2010

Suggested Reference Books

Export Procedures and Documentation by M.D. Jitendra, Rajat Publications, Delhi.

Export Markets and Foreign Trade Management by Pervin Wadia, Kanishka Publications, New Delhi.

Semester IV		SE-PHCM- 06 Entrepreneurship in Pharma and Healthcare
2 Credits	LTP: 1:1:1	Pharma and Healthcare Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
PHCM06.1	REMEMBERING	DEFINE the key terms, LIST the Attributes and Characteristics of Entrepreneurs feature and ENUMERATE the Factors influencing Entrepreneurship Growth.
PHCM06.2	UNDERSTANDING	DISCUSS the various theories of entrepreneurship.
PHCM06.3	APPLYING	CONSTRUCT a framework for a typical EDP for the Pharma industry
PHCM06.4	ANALYSING	EXAMINE the role of Government and various support organizations in encouraging and supporting Entrepreneurship.
PHCM06.5	EVALUATING	COMPOSE an inventory of possible entrepreneurial opportunities in contemporary local, regional and national the context for Pharma and Healthcare sector.
PHCM06.6	CREATING	BUILD a business plan for an entrepreneurial pharma of healthcare venture.

1. Entrepreneurship: Entrepreneurship Need, scope and philosophy, Creativity and entrepreneurship, Entrepreneurial competencies and traits, Factors affecting entrepreneurial development: Religious, social, cultural, political, ancestral and demographic.

2. Theories of entrepreneurship: Innovation Theory by Schumpeter & Imitating, Theory of High Achievement by McClelland, X-Efficiency Theory by Leibenstein, Theory of Profit by Knight, Theory of Social change by Everett Hagen.

3. Entrepreneurship development: Entrepreneurial Competencies, Developing Competencies. Concept of entrepreneurship development, Entrepreneur Training and developing, Role of Entrepreneur Development Programs (EDP), Role of DIC, SISI , EDII , NIESBUD, NEDB, EDP - Objectives – contents – methods - execution. Role of Mentors. Innovation and Entrepreneurship, Design Thinking Process. Role of consultancy organizations in promoting Entrepreneurs, Problems and difficulties of Entrepreneurs

4. Role of Central Government and State Government in promoting Entrepreneurship: Introduction to various incentives, subsidies and grants, Export Oriented Units, Fiscal and Tax concessions available, Future of Entrepreneurship Development and Government, Start Up India, Make in India.

5. Enterprise Promotion: Creating Entrepreneurial Venture, Entrepreneurship Development Cycle, Business Planning Process, The business plan as an entrepreneurial tool, Elements of Business Plan, Ownership - Franchising, networking and alliances, Buying an existing business, Critical risk, Contingencies of the proposal, Scheduling and milestones.

Suggested Text Books:

1. Dynamics of Entrepreneurial Development and Management by Vasant Desai
2. Entrepreneurship Development Small Business Enterprises by Poornima Charanthimath
3. Small Scale Industries and Entrepreneurship by Vasant Desai
4. The Theory of Economic Development by Joseph A. Schumpeter.
5. Entrepreneurial Development by S S Khanka
6. Business Innovation by Praveen Gupta
7. Launching New Ventures by K. Allen

Suggested Reference Books

1. The Culture of Entrepreneurship, Brigitte Berger

Syllabus for Tourism & Hospitality Management (MINOR ONLY SPECIALIZATION)
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emester III		SC-THM-01 Fundamentals of Hospitality Management
3 Credits	LTP: 2:1:1	Tourism and Hospitality Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
THM01.1	REMEMBERING	DESCRIBE different types of hotels & travel agents
THM01.2	UNDERSTANDING	UNDERSTAND the basic functioning of star hotels, major operational, Departments, government rules & regulations
THM01.3	APPLYING	USE of flow charts & diagrams of various Hospitality Sectors to know the hierarchy of the organization
THM01.4	ANALYSING	EXAMINE current changes taking place in the Hotel & Tourism Industry
THM01.5	EVALUATING	EVALUATE the changes required to improve traditional methods to suit the current market trends.
THM01.6	CREATING	DEVELOP Smart techniques adaptable to the present market scenario for better customer satisfaction

1. Introduction: The Hospitality Industry, Origin and Growth, Tourism Industry, Importance of Tourism, Industries related to Tourism, Evolution and Growth of the Hotel, Evolution of Tourism, Factors Affecting Hospitality and Tourism Industry, Employment Opportunities in Hospitality

2. Tourism Industry: Introduction, concept, definition, types and characteristics Relation of hospitality industry with Tourism Definition of Tourism, Features, Types of Tourists, Tourism Activities, Components of Tourism Infrastructure, Elements and Characteristics of Tourism Products, Scope of Tourism, Motivation for Tourism, Relation of hospitality industry with Tourism

3. Hotel Industry: Organization of Hotels, ownership structure: Sole Proprietorship, partnership, Franchisees, Management Contract, concept, their advantages and disadvantages. Clarification of Hotels, Major Departments of a Hotel, Star Ratings of Hotels, Global Standards for Hotels

4. Travel and Transport: History growth and present status of travel agency, Travel formalities, Linkages and arrangements with hotels, airlines and transport agencies, Transport system, Different types of transport, Impact of Science and Technology.

5. Recent Trends in Hospitality and related sectors: Future of Hospitality Industry, Changing trends, issue and challenges, Importance of Hospitality industry in India. Government regulations and support related to Travel, Tourism and hotel industries. Role of E-commerce in Hospitality sector

Suggested Text Books:

Bhatia A.K.(2012)Tourism Development and Principles & Practices, Sterling Publishers

Suggested Reference Books

David, F. R. (2010). Strategic Management (13th ed.). Prentice Hall. Oxford University Press

Okumus, F., Altinay, L., & Chathoth, P. (2010). Strategic Management for Hospitality and Tourism (1st ed.). Butterworth-Heinemann.

Enz, C. A. (2009). Hospitality Strategic Management: Concepts and Cases (2nd ed.). Wiley.

Semester IV		SC-THM-02 Tourism and Travel Management
3 Credits	LTP: 2:1:1	Tourism and Hospitality Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
THM02.1	REMEMBERING	DEFINE the various components of the Tourism Industry & Types of Tourism
THM02.2	UNDERSTANDING	UNDERSTAND basic operations of a Travel Agency & tour conduction
THM02.3	APPLYING	EXECUTE theoretical knowledge to design various tour packages & work on costing for the packages
THM02.4	ANALYSING	Analyze changing trends in Travel & Transport industry- Domestic & International
THM02.5	EVALUATING	INTERPRET the impacts of Tourism Industry globally & practicing of Eco-Tourism
THM02.6	CREATING	BUILD new concepts of Eco-Tourism according to customer requirements

1. Introduction: Tourism Definitions and Concepts, Components of tourism, Geographic components of tourism, Types of Tourists, Visitor, Traveler, and Excursionist, Differentiation Tourism, Recreation and leisure, adventure tourism, their inter–relationships, Tourism organization / Institutions, Role and functions of International agencies in Hospitality industry.

2. Travel Management: Travel Agency and Tour Operation Business, Functions of Travel Agency, Setting up a full-fledged Travel Agency - Sources of Income of a travel agency, Diversification of Business, Travel and Health Insurance, Forex, Cargo & MICE, Documentation, IATA Accreditation, Recognition from Government.

3. Tour Planning: Tour Packaging & Costing , Importance of Tour, Packaging, Classifications of Tour Packages, Components of Package Tours, Concept of costing, Types of costs, Components of tour cost, Preparation of cost sheet, Tour pricing, Calculation of tour price, Pricing strategies

4. Tourism Management: Tourism infrastructure, Tourism organizations, Travel motivators, Leisure or holiday Tourism, Visiting friends and Relatives (VFR), Cultural Tourism, Adventure Tourism, Sports Tourism, Religious Tourism, Business Tourism, Medical Tourism, Alternative Forms of tourism-Tourism Products and types.

5. Eco Tourism: Evolution, Principles, Trends and Functions of Ecotourism, Themes, Eco-tel and Eco resorts, Fundamentals of Ecology- Basic Laws & ideas in Ecology, Function and Management Ecosystem, Biodiversity and its Conservation, Pollution, Ecological Foot Prints, Mass Tourism Vs Ecotourism, Typology of Eco-tourists, Ecotourism Activities & Impacts, Western and Eastern Views of Ecotourism

Suggested Text Books:

Foster Dennis L., The Business Of Travel Agency Operations and Administration (1993)Macmillan/ McGraw, Singapore

Suggested Reference Books

Tourism Operations and Management, Sunetra Roday, Archana Biwal & Vandana Joshi

Semester III		SE-THM-03 Event Management
2 Credits	LTP: 2:1:1	Tourism and Hospitality Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
THM03.1	REMEMBERING	DESCRIBE the fundamentals of event management & different types of Events
THM03.2	UNDERSTANDING	EXPLAIN the concepts of Events & guest requirements to plan an event
THM03.3	APPLYING	DESIGN & Budget an event from various perspectives
THM03.4	ANALYSING	EXAMINE possible shortfalls on an event & create necessary back up systems to avoid failures
THM03.5	EVALUATING	COMPARE Success of an event in comparison to the set objectives
THM03.6	CREATING	COMPOSE New concepts of the event with innovative ideas to leave a lasting impression in the guest's mind along with achieving organizational growth.

1. Event Management Fundamentals Concept of Event, Types of events – MICE – Types of Meeting, Trade Shows, Conventions, Exhibitions- Structure of event industry – Event Management as a profession – Code of Ethics.

2. Event Planning and related statutory compliances: Event Conceptualizing – Host, Sponsor, Media, Guest, Crew, Participants, Spectators, Concept Designing – Theme, Event Objective and content development Pre Event Preparation: Budgeting, Event design, Event Related Documentations : Timing, Contracts and Agreements, Insurance, Regulation, License and Permits

3. Publicity & Marketing of Event : Pricing, Marketing Communication Methods & budget, Element Marketing Communication, Managing Marketing Communication, Modes of Publicity, Role of Internet in event publicity, Event Sponsorship, Managing Sponsorship, Measuring and evaluating sponsorship.

4. Conduct of Event: Venue selection: Indoor & Outdoor, Stage Audio Visual lighting, Performers, Decors, Caterer, Photography & Videography, Guest Demography and list, Handling children at event safety perspective, Invitation, media, food and beverage, entertainment, Event logistics management, Sanitary Facilities

5. Safety and Event Evaluation: Risk assessment, Provision of Safety Officer and Medical officer at venue, Structural Safety, Occupational Safety and Food Safety, Fire Prevention, Vehicle traffic, Waste Management, Event Evaluation Process: Event Impact, Service Quality, Customer Satisfaction

Note: Students are expected to be divided in Group and at least one event to be planned and executed by students.

Suggested Text Books:

Events, 4th Edition, Pearson Publications, 2014.

G.A.J. Bowdin, Events Management, Elsevier Butterworth

Suggested Reference Books

Allison, The Event Marketing Handbook: Beyond Logistics & Planning.

Julia Rutherford Silvers, Professional Event Coordination, The Wiley Event Management Series.

Allison, The Event Marketing Handbook: Beyond Logistics & Planning

John Beech, Sebastian Kaiser & Robert Kaspar, The Business of Events Management Pearson Publication, 2014.

Semester III		SE-THM-04 Tourism Planning and Development
2 Credits	LTP: 2:1:1	Tourism and Hospitality Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
THM04.1	REMEMBERING	DISCUSS Structures, Processes, Policies of Tours- Domestic & International Rules & regulations for operating a travel agency
THM04.2	UNDERSTANDING	UNDERSTAND Forex & Documentations for Operations
THM04.3	APPLYING	APPLY Knowledge to design attractive tours for clients
THM04.4	ANALYSING	ANALYZE Environmental impact & advantages of Eco-Tourism to promote sustainable tourism globally
THM04.5	EVALUATING	DETERMINE Environmental issues & adverse effects observed of Tourist destinations
THM04.6	CREATING	DESIGN backup systems to face crisis & emergencies Formulate Tourism policies for safe & secured travel of passengers

1. Tourism Components and Supply- Supply Components; Natural Resources; Built Environment; Operating Sectors; Hospitality and Cultural Resources; Matching Supply with Demand; Measuring and Forecasting Demand; Economic Impact

2. Tourism Policy - Structure, Content and Process- Tourism Policy – Definition; Policy focusing competitive Destination; Major Parameters of Tourism Destination Management; Process of Tourism Policy Formulation; Translating Policy into Reality; Formulating Policy to Deal with Crises

3. Environmental analysis: Environmental Analysis, Resource Analysis, Regional Environmental analysis

4. Tourism Planning, Development, And Social Considerations- Tourism Destination Planning, Planning for Sustainable Tourism Development, Contingency Planning, economic impact, social impact, cultural impact, environmental impact, and supply match, sustainable development and planning approaches and indicators, design and innovations.

5. Recent trends Tourism planning: Booking System, Tour scheduling, payment systems, feedback system

Suggested Text Books:

Var, T., & Gunn, C. (2002). Tourism Planning: Basics, Concepts, Cases (4th ed.). Routledge

Suggested Reference Books

Godfrey, K., & Clarke, J. (2000). Tourism Development Handbook: A Practical

Approach to Planning And Marketing. Cengage Learning EMEA. Okumus, F., Altinay, L., & Chathoth, P. (2010). Strategic Management for Hospitality and Tourism (1st ed.). Heinemann

Semester IV		SE-THM-05 Strategic Hospitality Management
2 Credits	LTP: 2:1:1	Tourism and Hospitality Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
THM05.1	REMEMBERING	DEFINE Concept & process of Strategic thinking Major Players of Hospitality & Travel Industry
THM05.2	UNDERSTANDING	DISCUSS Strategic management for various organizations factors influencing strategy formulations
THM05.3	APPLYING	IMPLEMENT strategies for Hotels & Travel Agents with the help of structured designs & flow charts
THM05.4	ANALYSING	ANALYSE Suitable strategies for different Hospitality sectors with consideration to micro & macro environments
THM05.5	EVALUATING	EVALUATE Current market scenario & suggest strategies that can be utilized for the benefits of the company
THM05.6	CREATING	DEVELOP Strategies for standalone units, a chain of hotels, small and large travel agents International strategies for small & big players

1. Introduction To Strategic Hospitality Management- Strategic Management–Origin, concept, Scope and Process; Strategic Thinking; Global competitiveness; Key Players in Indian Hospitality and Tourism Industry.

2. Micro And Macro Strategic Environment- The Environment and External Stakeholders - Assessment of the Broad Environment, Analysis of External Stakeholders and the Operating Environment, Managing the Operating Environment; Organizational Resources and Competitive Advantage - Internal Analysis and Competitive Advantage.

3. Strategic Direction & Formulating Basic Strategies- Strategic Direction-Creating a Strategic Direction, Mission Statements, Organizational Vision, Organizational Values; Strategy Formulation at the Business-Unit Level- Generic Business Strategies, Competitive Dynamics, Strategic Group Mapping; Corporate-Level Strategy and Restructuring.

4. Implementing Strategies And Establish Control Systems- Inter organizational Relationships and the Tourism Cluster; Functional-Level Resource Management; Organizational Design and Control- Organizational Structures design, Organizational Control, power and politics.

5. Strategies For Hospitality Entrepreneurship- Strategies for Entrepreneurship and Innovation -Entrepreneurial Start-ups, Innovation and Corporate Entrepreneurship; Global Strategic Management and the Future- Global Strategies, International Market Selection, Global Stakeholders, Emerging Trends.

Suggested Text Books:

Enz, C. A. (2009). Hospitality Strategic Management: Concepts and Cases

Suggested Reference Books

David, F. R. (2010). Strategic Management (13th ed.). Prentice Hall.

Okumus, F., Altinay, L., & Chathoth, P. (2010). Strategic Management for Hospitality and Tourism (1st ed.). Butterworth-Heinemann.

Semester III		SE-THM-06 Revenue Management for Hospitality
2 Credits	LTP: 2:1:1	Tourism and Hospitality Management

Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
THM06.1	REMEMBERING	DESCRIBE Basic concepts & terminologies related to finance & revenue
THM06.2	UNDERSTANDING	EXPLAIN Flow of cash, capital, investment, loan & generation of revenue from various sectors of Hospitality Franchising, leasing & renting out properties
THM06.3	APPLYING	DETERMINE the utilization of available funds for business maximization
THM06.4	ANALYSING	To ANALYSE Financial status of the organisation
THM06.5	EVALUATING	MEASURE the relation between income & outflow of revenue, profit & loss of organization Budgeting of required necessities Forecasting business & making necessary investments
THM06.6	CREATING	DEVELOP Business plan for future prospectus of organization Business proposals & expansions

1. Introduction : A Basic Understanding of Financial Management – Profit vs Wealth Maximization- Time value of money - Financial Markets- Capital Markets, Money Market - Financial Instruments-- Key Financial Intermediaries in the Hospitality Industry.

2. Relationship between Risk and Rewards : Risk. Returns and Distributions – Diversification - Beta. Expected Return and the Security Market Line- Bonds - Bond Features-. Bond Ratings-. Valuing Corporate Bonds. Computing Yield to Maturity on Corporate Bonds. Bonds with Semi-Annual Coupon Payments. Preferred Stock- Basic Preferred Stock Terminology. Preferred Stock Features. Valuing Preferred Stock - Common Stock-Common Stock Features. Valuing Common Stock. General Dividend Valuation Model - Zero-Growth Dividend Valuation Model. Constant-Growth Dividend Valuation Model. Valuing Common - Stock with Multiple Growth Rates. - Investors Rate of Return and Growth.

3. Cost of Capital and Capital Structure : The Weighted Average Cost of Capital - The Cost of Debt- The Cost of Preferred Stock - Cost of Internal Equity - Cost of. External Common

4. Equity - New Issues of Common Stock Financial Planning for the Hospitality- Capital Structure Theory - Factors in the Determination of a Firms Capital Structure.

5. Capital Budgeting and Working Capital Management: Classifying Capital Budgeting Projects- The Capital Budgeting Decision and Cash Flow Estimation - Uses -Managing Working Capital Other Financial Issues: Leasing, Expansion, Franchising - Asset Management in the Hospitality Industry- Valuation of Hospitality Real Estate - Hotel Appraisal Requirements - The Hotel Appraisal Process -Approaches to Hotel Valuation -Thumb rules-Revenue Multipliers.- Reconciliation

Suggested Text Books:

I.M.Pandey, Financial Management, Vikas.

M.Y. Khan & Jain, Financial Management, McGraw-Hill.

Suggested Reference Books

Robert E. Chatfield, Michael C. Dalbor, Hospitality Financial Management: Prentice Hall US.

William P. Andrew, James W. Damitio, Ph.D, CMA,Raymond S. Schmidgall

Syllabus for International Business Management (MINOR ONLY SPECIALIZATION)

Semester: III	Course Code: SC-IB-01	304 IB: Import Export Documentation and Procedures
3 Credits	LTP: 2:1:1	Generic Core Course

Course Outcomes: On successful completion of the course the learner will be able to

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO304IB.1	REMEMBERING	DESCRIBE THE PROCESS OF IMPORT AND EXPORT IN THE CONTEXT OF BUSINESS
CO304IB.2	UNDERSTANDING	EXPLAIN THE IMPORT AND EXPORT TRANSACTIONS, CLASSIFICATION AND VARIOUS PAYMENT TERMS
CO304IB.3	APPLYING	IDENTIFY VARIOUS TYPES OF DOCUMENTS REQUIRED FOR THE PROCEDURES INVOLVED IN IMPORT AND EXPORT
CO304IB.4	ANALYSING	EXAMINE VARIOUS DOCUMENTATION FORMATS FOR THE IMPORT AND EXPORT PROCESSES
CO304IB.5	EVALUATING	EXPLAIN PRE AND POST ACTIVITIES OF IMPORT AND EXPORT PROCESS
CO304IB.6	CREATING	DISCUSS ON VARIOUS ASPECTS OF TRADES, DOCUMENTATION AND PROCEDURES FOR IMPORT AND EXPORT

- 1. Introduction to Imports and Exports:** Meaning and Definition of Imports and Export – Classification – Strategy and Preparation for Export Marketing – Export Marketing Organizations – Registration Formalities – IEC – RCMC – Export Licensing – Selection of Export Product – Identification of Markets – Methods of Exporting – Pricing Quotations – Payment Terms – Letter of Credit - Liberalization of Imports – Negative List for Imports – Categories of Importers – Special Schemes for Importers. **(7+2)**
- 2. Management of Import and Exports:** Basic Concept of Import and Exports - Understanding an Export Transaction - Direct Quotation Method - Spot & Forward rates and booking of Forward contract for exports – Understanding NOSTRO, VOSTRO and LORO - Payment terms - contents and types of Letter of credit - Uniform Customs Procedures for Documentary Credits (UCPDC) - Excise clearance - Customs house agents - Marine insurance. **(7+2)**
- 3. Import Export Documentation:** Aligned Documentation System – Commercial Invoice – Shipping Bill – Certificate of Origin – Consular Invoice – Mate’s Receipt – Bill of Lading – GR Form – ISO 9000 – Procedure for obtaining ISO 9000 – BIS 14000 Certification – Types of Marine Insurance Policies - Import Documents – Transport Documents – Bill to Entry – Certificate of Inspection – Certificate of Measurements – Freight Declaration - Principal, Auxiliary & Regulatory set of documents. **(7+2)**
- 4. Import Export Procedures:** Steps in Export Procedure – Export Contract – Forward Cover – Export Finance – Institutional framework for Export Finance – Excise Clearance – Pre-shipment Inspection – Methods of Pre-shipment Inspection – Marine Insurance – Role of Clearing and Forwarding Agents – Shipping and Customs Formalities – Customs EDI System – Negotiation of Documents – Realisation of Exports Proceeds - Pre-Import Procedure – Steps in Import Procedure – Legal Dimensions of Import Procedure – Customs Formalities for Imports – Warehousing of Imported goods – Exchange Control Provisions for Imports – Retirement of Export Documents. **(7+2)**
- 5. Policy Framework for Imports and Exports:** Foreign Trade Policy – Highlights – Special Focus Initiatives – Duty Drawback – Deemed Exports – ASIDE – MAI & MDA – Star Export Houses – Town of Export Excellence – EPCG Scheme – Incentives for Exporters. Export Promotion Councils-Commodity Boards – FIEO – IIFT – EOUs – SEZs – ITPO – ECGC – EXIM Bank. **(7+2)**

Note:

- Real world examples and cases are expected to be discussed and analysed in the class as well as included in the examination.

Suggested Text Books:

- Export-Import Procedures and Documentation, Jain Khushpat S, Himalaya Publishing House

- Export Import Procedures Documentation & Logistics, Abir Lal Mukherjee, Random Publications

Suggested Reference Books:

- Export Import Procedures and Documentation, Thomas Johnson, Donna Bade, Harper Collins Publisher.
- Export-Import Theory, Practices, and Procedures, Erdener Kaynak, Belay Seyoum, Routledge.
- Export Import Management, Justin Paul, Rajiv Aserkar, OUP India.
- Exporting: Regulations Documentation Procedures: International Documentation and Procedures, George P. Thompson, George W. Thompson, Catherine J. Peterson, Global Training Center

Semester: IV	Course Code: SC-IB-02	404 IB: Global Trade and Logistics Management
3 Credits	LTP: 2:1:1	Generic Core Course

Course Outcomes: On successful completion of the course the learner will be able to

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO404IB.1	REMEMBERING	DESCRIBE THE ECONOMIC SIGNIFICANCE OF TRADE ALONG WITH THE LOGISTICS PROCESSES
CO404IB.2	UNDERSTANDING	EXPLAIN INTERNATIONAL TRADE THEORIES AND APPLICATIONS IN BUSINESS
CO404IB.3	APPLYING	IDENTIFY VARIOUS ENVIRONMENTAL FACTORS ASSOCIATED WITH INTERNATIONAL BUSINESS
CO404IB.4	ANALYSING	EXAMINE VARIOUS MODES AND PRACTICES OF INTERNATIONAL LOGISTICS
CO404IB.5	EVALUATING	EXPLAIN THE ACTIVITIES INVOLVED IN ENTIRE LOGISTICS PROCESS IN INTERNATIONAL BUSINESS
CO404IB.6	CREATING	DEVELOP THE APPROPRIATE STRATEGY OF OPERATIONS FOR GLOBAL TRADE AND LOGISTICS

- 1. Introduction to Global Trade and Logistics Management:** Introduction to International Business - Elements of International Business – Globalization and trade - Trade and its significance - Economic significance of trade - Elements of Logistics Management – Trade and Logistics Processes. **(7+2)**
- 2. International Trade Theories and Applications:** Why do nations trade - Theories of International trade – Mercantilism - Absolute advantage - Comparative advantage - Heckscher-Ohlin, Product life cycle theory and Porter’s diamond model. **(7+2)**
- 3. International Business Environment:** Economic Environment - Political Environment - Demographic environment - Legal Environment - Global sourcing - Challenges for Indian Businesses – Introduction to Foreign Trade Policy – Institutional Framework for Export Promotion – Export Incentives and Facilities. **(7+2)**
- 4. Introduction to Global Logistics:** Introduction to global logistics - Different modes of shipment - Different modes of operation of shipping - Different modes of transport - Multi modal transport system - Chartering practice - Conference system - Containerization – Concepts of FCL/LCL, CFS, ICD - Third party logistics. **(7+2)**
- 5. Global Logistics Operations:** Concepts of CHA, FFA, C&FA - Ship operating agents an process – Understanding NVOCC - Introduction to port operations - harbor facility and terminal facility - Role of VTMS - Customs bonded warehouses - Freight types, application, and consolidation - Introduction to International logistics - logistics Documentation - Understanding INCOTERM and Selection of INCOTERM - Application of information technology in global logistics. **(7+2)**

Note:

- Real world examples and cases are expected to be discussed and analyzed in the class as well as included in the examination.

Suggested Text Books:

- Logistics Management for International Business: Text and Cases, S. Sudalaimuthu, S. Anthony Raj, PHI Learning.
- Logistics Management and World Seaborne Trade, Muthiah Krishnaveni, Himalaya Publishing House
- International Trade Logistics, Ram Singh, Oxford University Press

Suggested Reference Books:

- Global Supply Chain Management and International Logistics, Alan E. Branch, Routledge.
- International Logistics: The Management of International Trade Operations, Pierre A. David, Richard D. Stewart, Cengage Learning.
- Global Logistics: New Directions in Supply Chain Management, Donald Waters, Kogan Page.
- Global Logistics and Supply Chain Management, by John Mangan, Chandra L. Lalwani, John Wiley & Sons.
- Handbook of Global Logistics: Transportation in International Supply Chains, James H. Bookbinder, Springer.
- Mastering the Business of Global Trade: Negotiating Competitive Advantage, Thomas A. Cook, CRC Press

Semester: III	Course Code: SE-IB-01	312 IB: Cross Cultural Management and Global Leadership
2 Credits	LTP: 1:1:1	Elective Core Course

Course Outcomes: On successful completion of the course the learner will be able to

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO312IB.1	REMEMBERING	DESCRIBE THE CONCEPT OF CULTURE AND SIGNIFICANCE OF CROSS-CULTURAL MANAGEMENT
CO312IB.2	UNDERSTANDING	OUTLINE THE CULTURAL VALUES AND DIFFERENCES WITH DIMENSIONS OF CULTURAL NORMS AND BEHAVIORS
CO312IB.3	APPLYING	IDENTIFY VARIOUS FACTORS AFFECTING CULTURE AND DECISION-MAKING MODELS ACROSS CULTURES
CO312IB.4	ANALYSING	EXAMINE THEORIES OF LEADERSHIP WITH LEADERSHIP ACROSS CULTURES
CO312IB.5	EVALUATING	EXPLAIN CULTURALLY INTELLIGENT LEADERSHIP IN INTERNATIONAL TRADE
CO312IB.6	CREATING	DISCUSS ON LEADING AND MANAGING MULTICULTURAL TEAMS IN INTERNATIONAL CONTEXT

- 1. Introduction to Cross-Cultural Management:** Concepts of culture - globalization of business - organizational culture - Cultural dimensions - cross-cultural management - Management in cultural context - Cross-cultural teams - Diversity Management - Understanding Cultural Values and Differences - cultural norms and behaviors - Cultural Acumen for the Global Manager. **(5+1)**
- 2. Management in Diverse Cultures:** Dimensions of Culture - Communicating across Cultures - Negotiating across Cultures - Multicultural Teams - Cross-cultural Marketing - Culture and Human Resource Management - Motivation across cultures - Expatriate Management - Global Teams - cultural intelligence - cross-border business agreements. **(5+1)**
- 3. Business Dimensions of Culture:** National and global cultures - Decision-making models across cultures - Cultural characteristics - Cross-cultural communication - Negotiating styles in different cultures – Diversity management - Global Citizenship. **(5+1)**
- 4. Introduction to Global Leadership:** Concept of Global Leadership - Theories of Leadership - Leadership Attributes - Global Leadership Forces - Leadership across cultures: styles, expectations and management - Culturally intelligent leadership in a globalized business world - Leadership Power and Influence - Leadership Behavior & Culture, Ethics and Norms - Leadership, Transitions & Relocation - Leading Trade Internationally. **(5+1)**
- 5. Global Team Management:** Working in multi-cultural teams: Managing Differences - Managing Multicultural Teams - concepts, processes and performance - Culturally intelligent team management: skills and strategies - Creating cultural competence - ethical dilemmas of international executives - Groups, Teams, and Their Leadership and Change. **(5+1)**

Note:

- The focus of the entire course should be on international business context
- Real world examples and cases are expected to be discussed and analyzed in the class.

Suggested Text Books:

- Cross - Cultural Management: Text and Cases, Dipak Kumar Bhattacharyya, Prentice Hall India Learning

- Effective Leadership in Organisational Success Process, Ravi K. Wadhawan, International Book House

Suggested Reference Books:

- Cross Cultural Management: Concepts and Cases, Madhavan, Oxford University Press.
- Understanding Cross-Cultural Management, Marie-Joelle Browaeys, Roger Price, Pearson
- Cross-Cultural Management: A Transactional Approach, Taran Patel, Routledge.
- Global Leadership: A Transnational Perspective, Gama Perruci, Routledge.
- Managing Cultural Differences: Global Leadership for the 21st Century, Neil Remington Abramson, Robert T. Moran, Routledge

Semester: III	Course Code: SE-IB-02	313 IB: International Business and Employment Laws
2 Credits	LTP: 1:1:1	Elective Core Course

Course Outcomes: On successful completion of the course the learner will be able to

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO313IB.1	REMEMBERING	DESCRIBE THE INTERNATIONAL BUSINESS CONTRACT IN THE LEGAL FRAMEWORK OF INTERNATIONAL BUSINESS
CO313IB.2	UNDERSTANDING	EXPLAIN INTERNATIONAL BUSINESS LAWS PERTAINING TO COMPETITION, COMPLIANCES, ARBITRATION, AND CUSTOMS
CO313IB.3	APPLYING	IDENTIFY VARIOUS ASPECTS OF INTERNATIONAL TRADE LAWS FOR BUSINESS
CO313IB.4	ANALYSING	EXAMINE INTERNATIONAL LEGAL TRADE TERMS FOR THE APPLICABILITY AND SIGNIFICANCE IN INTERNATIONAL BUSINESS
CO313IB.5	EVALUATING	EXPLAIN LEGAL ASPECTS INVOLVED IN THE IMPORT EXPORT AND INTERNATIONAL BUSINESS
CO313IB.6	CREATING	DISCUSS ON VARIOUS ASPECTS OF INTERNATIONAL EMPLOYMENT LAWS AND ISSUES

- 1. Legal Framework of International Business:** Legal Framework of International Business - Nature and complexities; Code and common laws and their implications to business; International business contract – legal provisions; Payments terms; International sales agreements; Rights and duties of agents and distributors - Governance of the sea and air - Regulations in international business - Advertising laws throughout the world - Social, political and environmental regulations in world - Legal aspects of doing business in multinational markets. **(5+1)**
- 2. International Business Competition Laws:** International and Comparative Competition Law - Merger & Acquisitions and Competition Law - Corporate Finance, Investment Laws and Compliances. **(5+1)**
- 3. International Business Commercial Laws:** Commercial Contracts - International Commercial Arbitration and the Law - Intellectual Property Law Information Technology Law - **Import-Export and Customs Laws. (5+1)**
- 4. International Trade Law:** Common Terms of Sale from Common law - International Legal Trade Terms of Cost, Insurance, freight, Free on Board and Letter of credit - Overview of United Nations Convention on Contracts for the International Sale of Goods. **(5+1)**
- 5. Legal Framework of International Employment:** International labour law - Employment contracts - Terms and clauses of employment - Social security legislation of employment - New Minimum Wage Requirements - Restrictions on Incentive Compensation - Global Integration of Employment Practices - Third-Party Compliance Liability - Issues in International Employment. **(5+1)**

Note:

- The focus of the entire course should be on international business context
- Real world examples and cases are expected to be discussed and analyzed in the class.

Suggested Text Books:

- International Business: Text and Cases Paperback, Cherunilam, Prentice Hall India Learning.
- Private International Law: Indian and English, Paras Diwan, Deep & Deep.
- International Trade Law, S.R. Myneni, Allahabad Law Agency

Suggested Reference Books:

- Statutory Regulation and Employment Relations: The Impact of Statutory Trade Union Recognition, Sian Moore, Sonia McKay, Sarah Veale, Palgrave Macmillan
- East Asian Labor and Employment Law: International and Comparative Context, Ronald Brown, Cambridge University Press
- International Human Resource Management, Christopher Brewster, Guy Vernon, Paul Sparrow, Elizabeth Houldsworth, Kogan Page
- International Trade and Business: Law, Policy and Ethics, Gabriel Moens, Peter Gillies, Routledge
- International Trade: Theory and Policy, Paul Krugman, Maurice Obstfeld, Marc Melitz, Pearson

Semester: IV	Course Code: SE-IB-03	409 IB: Global Competitiveness, Value Chains and Alliances
2 Credits	LTP: 1:1:1	Elective Core Course

Course Outcomes: On successful completion of the course the learner will be able to

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO409IB.1	REMEMBERING	DESCRIBE THE CONCEPT OF GLOBALISATION AND GLOBAL COMPETITIVENESS IN INTERNATIONAL BUSINESS
CO409IB.2	UNDERSTANDING	EXPLAIN THE EFFICACY OF THE FOREIGN COLLABORATIONS AND JOINT VENTURES IN INTERNATIONAL BUSINESS
CO409IB.3	APPLYING	IDENTIFY VARIOUS ELEMENTS OF VALUE CHAIN INVOLVED IN IMPORT AND EXPORT BUSINESS
CO409IB.4	ANALYSING	EXAMINE VARIOUS FACTORS OF INTERNATIONAL SUPPLY CHAIN DESIGN AND GLOBAL PROCUREMENT AND DISTRIBUTION
CO409IB.5	EVALUATING	EVALUATE THE GLOBAL COMPETITIVENESS INDEX FOR INTERNATIONAL BUSINESS
CO409IB.6	CREATING	DISCUSS ON ROLE AND SIGNIFICANCE OF STRATEGIC ALLIANCES IN INTERNATIONAL BUSINESS CONTEXT

- 1. Introduction to Global Competitiveness:** What is global competitiveness - Semiglobalization Today and Tomorrow - Global Concentration and Externalities - Global Risks and Global Imbalances - Global Exploitation, Global Oppression and Global Homogenization - Global Competitiveness Index - Factors Affecting Global Competitiveness - The Emerging Arena and Business in World. **(5+1)**
- 2. Foreign Collaborations and Joint Ventures:** Foreign Direct Investment Policy, Industrial Policy – Kinds of Collaboration and Joint Ventures – Drafting of Agreement – Restrictive Clauses in the Foreign Collaboration and Joint Venture Agreements – International Commercial Arbitration. **(5+1)**
- 3. Value Chains:** Business Performance and Value Chain - Assessment of Value Chain Activities - Capacity and Facilities Resources Planning and Scheduling - Supply Chain Design - Global Procurement and Distribution - Forecasting and Inventory Management - Global Project Management - Technology in managing the Supply Chains. **(5+1)**
- 4. Strategic Alliances:** Meaning, Rationale, Types, Trends in Alliances in New Competitive Environment - Strategic Alliance Failures - Managing Strategic Alliances – Role of significance of strategic alliances in international context. **(5+1)**
- 5. Business Framework for International Business:** Role of MNEs in host economy – Trends in Global FDI - Instruments of Trade Policy - Trading Blocks (ASEAN, SAFTA, SAARC, NAFTA, EU) – Role of WTO and UNCTAD – Significance of IMF, IBRD, ADB - Doha Development Round - Regulatory Framework for Subsidies & Countervailing duties in India. **(5+1)**

Note:

- The focus of the entire course should be on international business context
- Real world examples and cases are expected to be discussed and analyzed in the class.

Suggested Text Books:

- International Business: Environment and Globalization, Mahua Dutta, Dreamtech Press.
- International Business & Trade, Ashish Gupta, Mani Kansal, Vayu Education

Suggested Reference Books:

- Enhancing Global Competitiveness through Sustainable Environmental Stewardship, Subhash C. Jain, Ben L. Kedia, Edward Elgar Publishing.
- Global Business: Competitiveness and Sustainability, Riad A. Ajami, G. Jason Goddard, Routledge.
- Competition Policy and Global Competitiveness in Major Asian Economies, Tran Van Hoa, Edward Elgar Publishing.
- Business, Power and Sustainability in a World of Global Value Chains, Stefano Ponte, Zed Books.
- Global Value Chains and Development: Redefining the Contours of 21st Century Capitalism, Gary Gereffi, Cambridge University Press.

Semester: IV	Course Code: SE-IB-04	410 IB: International Banking and Foreign Exchange Management
2 Credits	LTP: 1:1:1	Elective Core Course

Course Outcomes: On successful completion of the course the learner will be able to

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO410IB.1	REMEMBERING	DESCRIBE THE CHARACTERISTICS AND SIGNIFICANCE OF INTERNATIONAL BANKING
CO410IB.2	UNDERSTANDING	EXPLAIN THE RELEVANCE OF MONEY MARKET AND MONITORY POLICY IN INTERNATIONAL BANKING
CO410IB.3	APPLYING	IDENTIFY VARIOUS TYPES OF FOREIGN EXCHANGE MARKETS AND TRANSACTIONS
CO410IB.4	ANALYSING	EXAMINE SUPPLY AND DEMAND VIEW OF EXCHANGE RATES IN INTERNATIONAL BUSINESS
CO410IB.5	EVALUATING	EXPLAIN THE EXCHANGE RATE RISK AND EXPOSURE IN INTERNATIONAL MARKETS
CO410IB.6	CREATING	DISCUSS ON LINKAGES OF INTERNATIONAL BANKING AND FOREIGN EXCHANGE WITH INTERNATIONAL BUSINESS

- 1. Introduction to International Banking:** What is International Banking - Concept of Money Market, Developed and less developed Money Market, Their Characteristics & Importance - English Banking System – Bank of England, Origin and Growth, Organizational Structure, Functions, Monetary Policy, Commercial Banking System. **(5+1)**
- 2. International Banking Institutions:** Federal Reserve System - Origin, Organizational Structure and Working, Commercial Banking in USA, Unit Banking and Branch Banking and Factors for its Growth in USA - New York Money Market – Constituents and Working, London Money Market - Market Constituents working - Credit Instruments of Euro and Dollar - European Central Bank, Organization Structure and Functions - Bank of Japan- Structure and Working, Asian Development Bank- Functions, Structure and Working - Reserve Bank of India- Functions, Monetary and Credit Policy and Evaluation, - Indian Money Market - Banking Reforms in India – Role of NABARD - International Financial Institutions- I.M.F. and I.B.R.D, I.D.A, IFC, BRICS - New Development Bank. **(5+1)**
- 3. Foreign Exchange Markets:** Foreign Exchange Markets and Transactions - Quoting Foreign Exchange Rates, Spread, Official and Free market rates - Direct , Indirect and Cross Rates - Forward Rates with Quoting and Structure - Forward Exchange Rates versus Expected Future Spot Rate - Outright Forwards versus Swaps . Currency Futures, Marking to Market - Futures Contract Versus Forward Contract - The link between the Future and the Forward Contract. **(5+1)**

4. **Exchange Rates Assessments:** The Balance of Payment Accounts - The net International Investment Position - Supply and Demand View of Exchange Rates - Modern Theories of Exchange Rates - Alternative Systems of Exchange Rate - Hybrid System and Target Zone Arrangement. **(5+1)**
5. **Foreign Exchange Risks and Taxation:** The nature of Exchange Rate Risk and Exposure - Types of Foreign Exchange Exposure - Alternative Strategies for Exposure Management - Exposure Management Techniques - Hedging Risk and Exposure - Different Forms of Taxes, Import Duties - Withholding Taxes AND Branch vs Subsidiary Taxes - Organizational structures for reducing taxes - Tax Reliefs - Tax Treatment of Foreign Exchange Gains and Losses. **(5+1)**

Note:

- The focus of the entire course should be on international business context
- Real world examples and cases are expected to be discussed and analyzed in the class.

Suggested Text Books:

- International Trade Finance, Indian Institute of Banking & Finance, Taxmann Publications.
- Money Banking International Trade & Public Finance, M.L. Seth, Lakshmi Narian Agarwal.
- Foreign Exchange and Risk Management Paperback, C. Jeevanandam, Sultan Chand & Sons.
- Foreign Exchange Management, Sunil Kumar, Galgotia Publishing Company

Suggested Reference Books:

- Environmental Systems and Societies, Jill Rutherford, Oxford University Press.
- International Banking, Legal and Regulatory Aspects, Indian Institute of Banking & Finance, Macmillan Publishers.
- Foreign Exchange International Finance Risk Management, A. V. Rajwade, H. G. Desai, Arizona Business Alliance.
- International Trade Finance, Indian Institute of Banking & Finance, Taxmann Publications.
- How Global Currencies Work – Past, Present, and Future, Barry Eichengreen, Arnaud Mehl, Livia Chitu, Princeton University Press.