

**Master of Business Administration (MBA) – Revised Syllabus 2019**

**2 year, 4 Semester Full time Programme  
Choice Based Credit System (CBCS) and Grading System  
Outcome Based Education Pattern**

MBA I effective from AY 2019-20

MBA II effective from AY 2020-21

**1.0 Preamble:** The revised MBA Curriculum 2019 builds on the implementation of the Choice Based Credit System (CBCS) and Grading System initiated in the AY 2013. The curriculum takes the MBA programme to the next level in terms of implementing Outcome Based Education along with the Choice Based Credit System (CBCS) and Grading System.

**2.0 Definitions:**

**2.1 Outcome Based Education:**

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

- a) There must be a performer – the student (learner), not only the teacher
- b) There must be something performable (thus demonstrable or assessable) to perform
- c) 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 graduation<sup>1</sup>).

**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:

- a) Disciplinary knowledge and skills
- b) Generic skills
- c) 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 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.

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

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<sup>1</sup> Graduation refers to passing out of the MBA programme. Graduation does NOT refer to 10+2+3/4 degree e.g. BA, BE, etc.

- 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,

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.

- 2.3 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.
- 2.4 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.
- 2.5 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	Comprehensive Concurrent Evaluation (CCE)	End Semester Evaluation (ESE) Marks	Total Marks
<b>BASIC COURSE TYPES</b>						
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
<b>ADDITIONAL COURSE TYPES</b>						
1	Enrichment Courses (ENR)	1	Elective	25	0	25
2	Foundation Courses	1	Elective	25	0	25

	(FOU)					
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.
- 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)<sup>2</sup>:** 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.

<sup>2</sup> 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	CCE Marks	ESE Marks
<b>COMPULSORY CORE COURSES (GENERIC (GC) + SUBJECT (SC) + Summer Internship Project SIP)</b>												
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								
<b>GENERIC ELECTIVE COURSES (UNIVERSITY LEVEL) – GE - UL</b>												
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						
<b>GENERIC / SUBJECT ELECTIVE COURSES (INSTITUTE LEVEL) - GE – IL / SE - IL</b>												
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						
	<b>12</b>		<b>12</b>		<b>11</b>		<b>8</b>		<b>43</b>	<b>110</b>	<b>1600</b>	<b>1600</b>
<b>FOUNDATION COURSES (OPTIONAL)</b>												
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										
<b>ENRICHMENT COURSES (OPTIONAL)</b>												
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										
<b>ALTERNATIVE STUDY CREDIT COURSES (OPTIONAL)</b>												
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	CIE - ESE (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
			<b>TOTAL</b>	<b>110</b>	<b>43</b>	
<b>OPTIONAL COURSES (In Lieu of C1 / C2 ONLY)</b>						
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)

**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) + 7(Minor) choices)
3. Specializations which are offered ONLY as MINOR shall be offered in SECOND YEAR ONLY. (3 choices)
4. 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).
5. 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.
6. All courses (Subject Core (SC) courses and the Subject Elective (SE - IL) courses) chosen in Sem II shall belong to the same specialization.
7. 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.
8. 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.<sup>3</sup>
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.

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<sup>3</sup> Except for a learner who opts for Major + Minor Specialization combination

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) courses<sup>4</sup>.
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).
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

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<sup>4</sup> Except for a learner who opts for Major + Minor Specialization combination



- 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) courses<sup>5</sup>.
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. 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

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<sup>5</sup> Except for a learner who opts for Major + Minor Specialization combination

**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 Corporate Entity / NGO / SME / Government Undertaking / Cooperative Sector. 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.

**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 15<sup>th</sup> September. The Institute shall conduct an internal viva-voce for evaluation of the SIP for 50 marks between 15<sup>th</sup> September to 30<sup>th</sup> 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 30<sup>th</sup> 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. Adequacy of work undertaken by the student
2. Application of concepts learned in Sem I and II
3. Understanding of the organization and business environment
4. Analytical capabilities
5. Technical Writing & Documentation Skills
6. Outcome of the project – sense of purpose
7. Utility of the project to the organization
8. Variety and relevance of 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 Comprehensive Concurrent Evaluation (CCE) / Concurrent Internal Evaluation (CIE):**

1. The course teacher shall prepare the scheme of Comprehensive Concurrent Evaluation (Formative Assessment) before commencement of the term. The scheme of Comprehensive Concurrent Evaluation shall explicitly state the linkages of each CCE 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 Comprehensive Concurrent Evaluation with or without modifications.
3. The course teacher shall display, on the notice board, the approved CCE 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 CCE item shall be of minimum 25 marks.
5. For a 3 Credit Course there shall be a MINIMUM of three CCE 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 CCE items. The final scores shall be converted to 50.
7. For a 1 Credit Course there shall be a MINIMUM of one CCE item.
8. CCE 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 CCE 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 CCE *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 CCE items at its discretion.
12. At the end of the term aggregate CCE 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 Comprehensive Concurrent Evaluation Methods:** Course teachers shall opt for a combination of one of more CCE methods listed below.

Group A (Individual Assessment) – Not more than 1 per course

1. Class Test
2. Open Book Test
3. Written Home Assignment
4. In-depth Viva-Voce

Group B (Individual Assessment) – Atleast 1 per course

5. Case Study
6. Caselet
7. Situation Analysis

8. Presentations

Group C (Group Assessment) – Not more than 1 per course

9. Field Visit / Study tour and report of the same
10. Small Group Project & Internal Viva-Voce
11. Model Development
12. Role Play
13. Story Telling
14. Fish Bowls

Group D (Creative - Individual Assessment) – Not more than 1 per course

15. Learning Diary
16. Scrap Book / Story of the week / Story of the month
17. Creating a Quiz
18. Designing comic strips
19. Creating Brochures / Bumper Stickers / Fliers
20. Creating Crossword Puzzles
21. Creating and Presenting Posters
22. Writing an Advice Column
23. Library Magazines based assessment
24. Peer assessment
25. Autobiography/Biography
26. Writing a Memo
27. Work Portfolio

Group E (Use of Literature / Research Publications- Individual Assessment) – Not more than 1 per course

28. Book Review
29. Drafting a Policy Brief
30. Drafting an Executive Summary
31. Literature Review
32. Term Paper
33. Thematic Presentation
34. Publishing a Research Paper
35. Annotated Bibliography
36. Creating Taxonomy
37. Creating Concept maps

Group F (Use of Technology - Individual Assessment) – Not more than 1 per course

38. Online Exam
39. Simulation Exercises
40. Gamification Exercises
41. Presentation based on Google Alerts
42. Webinar based assessment
43. Creating Webpage / Website / Blog
44. Creating infographics / infomercial
45. Creating podcasts / Newscast
46. Discussion Boards

**Rubrics: The course teacher shall design Rubrics for each CCE.** 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 CCE 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 CCE:** 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 CCE Documents:** Records of CCE 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 End Semester Evaluation (ESE):

1. The End Semester Evaluation (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 ESE 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 ESE 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	

#### 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' program<sup>6</sup>: 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.

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<sup>6</sup> As per AICTE Policy approved by the Executive Committee in its 100th meeting held on June 28, 2016

- 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 Evaluation 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 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 CCE Scores:** The marks obtained by the student for the CCE shall be scaled down, to the required extent, if percentage of the marks of CCE exceeds the percentage of marks scored in the ESE (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 1/3<sup>rd</sup>** 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**

<b>GENERIC CORE (GC) COURSES – 3 Credits Each</b>			
<b>50 Marks CCE, 50 Marks ESE</b>			
<b>Course No.</b>	<b>Course Code</b>	<b>Course</b>	<b>Semester</b>
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

<b>GENERIC ELECTIVES UNIVERSITY LEVEL (GE – UL) COURSES – 2 Credits Each</b>			
<b>00 Marks CCE , 50 Marks ESE</b>			
<b>Course #</b>	<b>Course Code</b>	<b>Course</b>	<b>Semester</b>
<b>Any 3 courses to be selected from the following list in Semester I</b>			
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
<b>Any 3 courses to be selected from the following list in Semester II</b>			
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
<b>Any 3 courses to be selected from the following list in Semester III</b>			
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	Quality Management	III
310	GE - UL - 17	Corporate Governance	III
311	GE - UL - 18	Management of Non-profit organizations	III
<b>Any 2 courses to be selected from the following list in Semester IV</b>			
405	GE - UL - 19	Global Strategic Management	IV
406	GE - UL - 20	Competing in Global Markets	IV
407	GE - UL - 21	Cyber Laws	IV
408	GE - UL - 22	CSR & Sustainability	IV

<b>GENERIC ELECTIVES INSTITUTE LEVEL (GE – IL) COURSES – 2 Credits Each</b>			
<b>50 Marks CCE , 00 Marks ESE</b>			
<b>Course No.</b>	<b>Course Code</b>	<b>Course</b>	<b>Semester</b>
<b>Maximum 3 courses to be selected from the following list in Semester I</b>			
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
<b>Maximum 1 course to be selected from the following list in Semester II</b>			
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

<b>SUBJECT CORE (SC) COURSES: Specialization – Marketing Management (MKT)</b>			
<b>3 Credits Each, 50 Marks CCE, 50 Marks ESE</b>			
<b>Course No.</b>	<b>Course Code</b>	<b>Course</b>	<b>Semester</b>
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

<b>SUBJECT ELECTIVE (SE - IL) COURSES: Specialization – Marketing Management (MKT)</b>			
<b>2 Credits Each, 50 Marks CCE, 00 Marks ESE</b>			
<b>Course No.</b>	<b>Course Code</b>	<b>Course</b>	<b>Semester</b>
<b>Maximum 2 courses to be selected from the following list in Semester II</b>			
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
<b>Maximum 3 courses to be selected from the following list in Semester III</b>			
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
<b>Maximum 2 courses to be selected from the following list in Semester IV</b>			
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

<b>SUBJECT CORE (SC) COURSES: Specialization – Financial Management (FIN)</b>			
<b>3 Credits Each, 50 Marks CCE, 50 Marks ESE</b>			
<b>Course No.</b>	<b>Course Code</b>	<b>Course</b>	<b>Semester</b>
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

<b>SUBJECT ELECTIVE (SE - IL) COURSES: Specialization – Financial Management (FIN)</b>			
<b>2 Credits Each, 50 Marks CCE, 00 Marks ESE</b>			
<b>Course No.</b>	<b>Course Code</b>	<b>Course</b>	<b>Semester</b>
<b>Maximum 2 courses to be selected from the following list in Semester II</b>			
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
<b>Maximum 3 courses to be selected from the following list in Semester III</b>			
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
<b>Maximum 2 courses to be selected from the following list in Semester IV</b>			
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

<b>SUBJECT CORE (SC) COURSES: Specialization – Human Resource Management (HRM)</b>			
<b>3 Credits Each, 50 Marks CCE, 50 Marks ESE</b>			
<b>Course No.</b>	<b>Course Code</b>	<b>Course</b>	<b>Semester</b>
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

<b>SUBJECT ELECTIVE (SE - IL) COURSES: Specialization – Human Resource Management (HRM)</b>			
<b>2 Credits Each, 50 Marks CCE, 00 Marks ESE</b>			
<b>Course No.</b>	<b>Course Code</b>	<b>Course</b>	<b>Semester</b>
<b>Maximum 2 courses to be selected from the following list in Semester II</b>			
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
<b>Maximum 3 courses to be selected from the following list in Semester III</b>			
312 HRM	SE – IL - HRM - 07	Talent Management	III
313 HRM	SE – IL - HRM - 08	Psychometric Testing and Assessment	III
314 HRM	SE – IL - HRM - 09	HR Perspectives in Mergers and Acquisition	III
315 HRM	SE – IL - HRM - 10	International HR	III
316 HRM	SE – IL - HRM - 11	Mentoring and Coaching	III
317 HRM	SE – IL - HRM - 12	Compensation and Reward Management	III
<b>Maximum 2 courses to be selected from the following list in Semester IV</b>			
409 HRM	SE – IL - HRM - 13	Labour Legislations	IV
410 HRM	SE – IL - HRM - 14	Designing HR Policies	IV
411 HRM	SE – IL - HRM – 15	Labour Costing	IV
412 HRM	SE – IL - HRM - 16	Best Practices in HRM	IV

<b>SUBJECT CORE (SC) COURSES: Specialization – Operations &amp; Supply Chain Management (OSCM)</b>			
<b>3 Credits Each, 50 Marks CCE, 50 Marks ESE</b>			
<b>Course No.</b>	<b>Course Code</b>	<b>Course</b>	<b>Semester</b>
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	Operations Strategy	IV
404 OSCM	SC – OSCM - 06	Industry 4.0	IV

<b>SUBJECT ELECTIVE (SE - IL) COURSES : Specialization – Operations &amp; Supply Chain Management (OSCM)</b>			
<b>2 Credits Each, 50 Marks CCE, 00 Marks ESE</b>			
<b>Course No.</b>	<b>Course Code</b>	<b>Course</b>	<b>Semester</b>
<b>Maximum 2 courses to be selected from the following list in Semester II</b>			
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
<b>Maximum 3 courses to be selected from the following list in Semester III</b>			
312 OSCM	SE – IL - OSCM – 07	Manufacturing Resource Planning	III
313 OSCM	SE – IL - OSCM – 08	Total Quality Management	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 Strategy	III
317 OSCM	SE – IL - OSCM – 12	Services Strategy	III
318 OSCM	SE – IL - OSCM – 13	Operations Analytics	III
<b>Maximum 2 courses to be selected from the following list in Semester IV</b>			
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	Six Sigma for Operations	IV
412 OSCM	SE – IL – OSCM – 17	Financial Perspectives in Operations Management	IV
413 OSCM	SE – IL - OSCM – 18	Services Management in Key Sectors	IV
414 OSCM	SE – IL - OSCM – 19	Purchasing & Supplier Relationship Management	IV
415 OSCM	SE – IL - OSCM - 20	Strategic Supply Chain Management	IV



<b>SUBJECT CORE (SC) COURSES: Specialization – Business Analytics (BA)</b>			
<b>3 Credits Each, 50 Marks CCE, 50 Marks ESE</b>			
<b>Course No.</b>	<b>Course Code</b>	<b>Course</b>	<b>Semester</b>
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	Networks, Innovation and Value Creation	IV
404 BA	SC – BA - 06	Artificial Intelligence in Business Applications	IV

<b>SUBJECT ELECTIVE (SE - IL) COURSES: Specialization – Business Analytics (BA)</b>			
<b>2 Credits Each, 50 Marks CCE, 00 Marks ESE</b>			
<b>Course No.</b>	<b>Course Code</b>	<b>Course</b>	<b>Semester</b>
<b>Maximum 2 courses to be selected from the following list in Semester II</b>			
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
<b>Maximum 3 courses to be selected from the following list in Semester III</b>			
312 BA	SE – IL - BA – 06	Social Media, Web & Text Analytics	III
313 BA	SE – IL - BA – 07	Operations Analytics	III
314 BA	SE – IL - BA – 08	Supply Chain Analytics	III
315 BA	SE – IL - BA – 09	Financial Analytics	III
316 BA	SE – IL - BA – 10	Cognos Analytics	III
317 BA	SE – IL - BA – 11	Predictive Modelling using SPSS Modeler	III
318 BA	SE – IL - BA - 12	Foundations in Spark & Scala	III
<b>Maximum 2 courses to be selected from the following list in Semester IV</b>			
409 BA	SE – IL - BA - 13	E tailing Analytics	IV
410 BA	SE – IL - BA - 14	Insurance & Healthcare Analytics	IV
411 BA	SE – IL - BA – 15	Banking Analytics	IV
412 BA	SE – IL - BA – 16	Telecom Analytics	IV
413 BA	SE – IL - BA – 17	ETL, Data Profiling and Data Modeling	IV
414 BA	SE – IL - BA – 18	Cognitive Analytics Using Watson	IV
415 BA	SE – IL - BA – 19	Data Science using Spark and Scala	IV
416 BA	SE – IL - BA – 20	Unstructured Data Analytics with Hadoop / Big Data / NoSQL	IV

<b>[D] FOUNDATION (FOU) COURSES ( ELECTIVES) – 1 Credit Each</b>			
<b>25 Marks CCE, 00 Marks ESE</b>			
<b>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</b>			
<b>Course No.</b>	<b>Course Code</b>	<b>Course</b>	<b>Semester</b>
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

<b>[E] ENRICHMENT (ENR) COURSES ( ELECTIVES) – 1 Credit Each</b>				
<b>25 Marks CCE, 00 Marks ESE</b>				
<b>Between ZERO to SIX courses to be selected from the following list in Semester I and / or</b> <b>Between ZERO to FOUR courses to be selected from the following list in Semester II and / or</b> <b>Between ZERO to TWO courses to be selected from the following list in Semester III and / or</b> <b>Between ZERO to FOUR courses to be selected from the following list in Semester IV</b>				
<b>Course No</b>	<b>Course Code</b>	<b>Proficiency Track</b>	<b>Course</b>	<b>Semester</b>
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	Any

			Development and Presentation	
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	Any

			Indian Economy - Case Study Development and Presentation	
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	Swacch 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 –	Any

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			Seminar	
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

<b>[F] ALTERNATIVE STUDY CREDIT COURSES (ASCC) ( ELECTIVES) – 2 Credit Each</b>			
<b>50 Marks CCE, 00 Marks ESE</b>			
<b>Between ZERO to THREE courses to be selected from the following list in Semester I<sup>#</sup></b> <b>and / or</b> <b>Between ZERO to THREE courses to be selected from the following list in Semester II<sup>#</sup></b> <b>and / or</b> <b>Between ZERO to THREE courses to be selected from the following list in Semester III<sup>#</sup></b> <b>and / or</b> <b>Between ZERO to TWO courses to be selected from the following list in Semester IV<sup>#</sup></b>			
<b>Course No.</b>	<b>Course Code</b>	<b>Course</b>	<b>Semester</b>
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**

<b>Specialization – Rural &amp; Agri -Business Management (RABM)</b>			
<b>Course No.</b>	<b>Course Code</b>	<b>Course</b>	<b>Semester</b>
<b>2 CORE courses as per the following list – in Semester III or Semester IV</b>			
1	SC – RABM – 01	Agriculture and Indian Economy	III
2	SC – RABM – 02	Rural Marketing	IV
<b>Any 2 ELECTIVE courses to be selected from the following list – either in Semester III or Semester IV</b>			
1	SE – RABM – 03	Rural Credit and Finance	III
2	SE – RABM – 04	Rural Marketing II	III
3	SE – RABM – 05	ICT for Agriculture Management	IV
4	SE – RABM – 06	Agri – Entrepreneurship	IV
<b>Specialization – Pharma &amp; Health Care Management (PHCM)</b>			
<b>Course No.</b>	<b>Course Code</b>	<b>Course</b>	<b>Semester</b>
<b>2 CORE courses as per the following list – in Semester III or Semester IV</b>			
1	SC – PHCM- 01	Fundamentals of Pharma and Healthcare Management	III
2	SC – PHCM- 02	Pharma and healthcare regulatory environment in India	IV
<b>Any 2 ELECTIVE courses to be selected from the following list – either in Semester III or Semester IV</b>			
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
<b>Specialization – Tourism &amp; Hospitality Management (THM)</b>			
<b>Course No.</b>	<b>Course Code</b>	<b>Course</b>	<b>Semester</b>
<b>2 CORE courses as per the following list – in Semester III &amp; Semester IV</b>			
1	SC – THM – 01	Fundamental of Hospitality Management	III
2	SC – THM - 02	Tourism & Travel Management	IV
<b>Any 2 ELECTIVE courses to be selected from the following list – either in Semester III or Semester IV</b>			
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



**ANNEXURE II – COURSE WISE DETAILED SYLLABUS**

Generic Core Courses (Compulsory) – Semester I & II		
<b>Semester I</b>		<b>101 – Managerial Accounting</b>
<b>3 Credits</b>	<b>LTP: 2:1:1</b>	<b>Compulsory Generic Core Course</b>

**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.

- 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, Functional Budgets–Raw Material Purchase & Procurement Budget, Cash Budget and Flexible Budget. **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

5. Fundamentals of Management Accounting, H. V.Jhamb
6. Cost and Management Accounting, M. N. Arora
7. Financial Accounting for Managers, Sanjay Dhmiya, Pearson Publications
8. 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

<b>Semester I</b>		<b>102 - Organizational Behaviour</b>
<b>3 Credits</b>	<b>LTP: 2:1:1</b>	<b>Compulsory Generic Core Course</b>

**Course Outcomes: On successful completion of the course the learner will be able to**

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO102.1	REMEMBERING	DESCRIBE the major theories, concepts, terms, models, frameworks and research findings in the field of organizational behavior.
CO102.2	UNDERSTANDING	EXPLAIN the implications of organizational behavior from the perspectives of employees, managers, leaders and the organization.
CO102.3	APPLYING	MAKE USE OF the Theories, Models, Principles and Frameworks of organizational behavior in specific organizational settings.
CO102.4	ANALYSING	DECONSTRUCT the role of individual, groups, managers and leaders in influencing how people behave and in influencing organizational culture at large.
CO102.5	EVALUATING	FORMULATE approaches to reorient individual, team, managerial and leadership behaviour in order to achieve organizational goals.
CO102.6	CREATING	ELABORATE UPON the challenges in 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. **(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. **(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. **(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. **(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. **(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

<b>Semester I</b>		<b>103 – Economic Analysis for Business Decisions</b>
<b>3 Credits</b>	<b>LTP: 2:1:1</b>	<b>Compulsory Generic Core Course</b>

**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 in micro-economics.
CO103.2	UNDERSTANDING	EXPLAIN the key terms in micro-economics, from a managerial perspective.
CO103.3	APPLYING	IDENTIFY the various issues in an economics context and DEMONSTRATE 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	DEVELOP critical thinking based on principles of micro-economics for informed business decision making.
CO103.6	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. **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, Cyert and March's Behavior Theory, Marris' Growth Maximisation Model, Baumol's Static and Dynamic Models, Williamson's Managerial Discretionary Theory. **(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 numericals 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. Profit Policy: Break Even analysis. Profit Forecasting. Need for Government Intervention in Markets. Price Controls. Support Price. Preventions and Control of Monopolies. System of Dual Price. **(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, Theories 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.

<b>Semester I</b>		<b>104 - Business Research Methods</b>
<b>3 Credits</b>	<b>LTP: 2:1:1</b>	<b>Compulsory Generic Core Course</b>

#### 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

<b>Semester I</b>		<b>105 – Basics of Marketing</b>
<b>3 Credits</b>	<b>LTP: 2:1:1</b>	<b>Compulsory Generic Core Course</b>

**Course Outcomes: On successful completion of the course the learner will be able to**

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO105.1	REMEMBERING	RECALL and REPRODUCE the various concepts, principles, frameworks and terms related to the function and role of marketing.
CO105.2	UNDERSTANDING	DEMONSTRATE the relevance of marketing management concepts and frameworks to a new or existing business across wide variety of sectors and ILLUSTRATE the role that marketing plays in the 'tool kit' of every organizational leader and manager.
CO105.3	APPLYING	APPLY marketing principles and theories to the demands of marketing function and practice in contemporary real world scenarios.
CO105.4	ANALYSING	EXAMINE and LIST marketing issues pertaining to segmentation, targeting and positioning, marketing environmental forces, consumer buying behavior, marketing mix and Product Life Cycle in the context of real world marketing offering (commodities, goods, services, e-products/ e-services).
CO105.5	EVALUATING	EXPLAIN the interrelationships between segmentation, targeting and positioning, marketing environment, consumer buying behavior, marketing mix and Product Life Cycle with real world examples.
CO105.6	CREATING	DISCUSS alternative approaches to segmentation, targeting and positioning, the marketing environment, consumer buying behavior, marketing mix and Product Life Cycle in the context of real world marketing offering (commodities, goods, services, e-products/ e-services.).

**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 Markets, Marketing V/S Market Competition, Key customer markets, market places, market spaces, 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 functions with all functions in the organization. Company orientation towards market place: Product – Production - Sales – Marketing –Societal – Relational, Holistic Marketing Orientation. Selling versus marketing. Concept of Marketing Myopia. Marketing Process, Understanding Marketing as Creating, Communicating, and Delivering Value **(5+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 Political, Economic, Socio-cultural, Technical and Legal Environment. Demographics. **(5+2)**

**3. Segmentation, Target Marketing & Positioning: Segmentation** - Concept, Need & Benefits. Geographic, Demographic, Psychographic, Behavioural bases of segmentation for consumer goods and services. Bases for segmentation for business markets. Levels of segmentation, Criteria for effective segmentation. Market Potential & Market Share. Target Market - Concept of Target Markets and criteria for selection. Segment Marketing, Niche & Local Marketing, Mass marketing, Long Tail Marketing. Positioning - Concept of differentiation & positioning, Value Proposition & Unique Selling Proposition. **(8+2)**

**4. Consumer Behavior:** Meaning & importance of consumer behavior, Comparison between Organizational Buying behavior and consumer buying behavior, Buying roles, Five steps consumer buyer 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 behavior. **(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. **(10+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
2. Marketing Management, Rajan Saxena, TMGH

## 3. Marketing, Lamb Hair Sharma, Mc Daniel, Cengage Learning

**Suggested Reference Books:**

1. Principles of Marketing, Philip Kotler, Gary Armstrong, Prafulla Agnihotri, Ehasan Haque, Pearson
2. Marketing Management- Text and Cases, Tapan K Panda, Excel Books
3. Marketing Management, Ramaswamy & Namakumari, Macmillan.
4. Marketing Whitebook

<b>Semester I</b>		<b>106 – Digital Business</b>
<b>3 Credits</b>	<b>LTP: 2:1:1</b>	<b>Compulsory Generic Core Course</b>

**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 Marketspace, 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 for Social Networking; Social Media 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.

<b>Semester II</b>		<b>201 – Marketing Management</b>
<b>3 Credits</b>	<b>LTP: 2:1:1</b>	<b>Compulsory Generic Core Course</b>

#### 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.
CO201.2	UNDERSTANDING	COMPARE and CONTRAST various approaches to pricing for a real world marketing offering (commodities, goods, services, e-products/ e-services.)
CO201.3	APPLYING	DEMONSTRATE an understanding of various channel options for a real world marketing offering (commodities, goods, services, e-products/ e-services.)
CO201.4	ANALYSING	EXAMINE the product line of a real world marketing offering (commodities, goods, services, e-products/ e-services.)
CO201.5	EVALUATING	EXPLAIN the role of various communication mix elements for a 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.)

1. **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, Commodity Vs. Brand, Product Vs Brand, Concept of Brand equity. **(7 + 2)**

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)**

3. **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)**

**4. 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)**

**5. 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:

1. Marketing Management, Philip Kotler, Kevin Lane Keller, Abraham Koshy, Mithileshwar Jha, Pearson
2. Marketing Management, Rajan Saxena, TMGH
3. Marketing, Lamb Hair Sharma, Mc Daniel, Cengage Learning

#### Suggested Reference Books:

1. Principles of Marketing, Philip Kotler, Gary Armstrong, Prafulla Agnihotri, Ehasan Haque, Pearson
2. Marketing Management- Text and Cases, Tapan K Panda, Excel Books
3. Marketing Management, Ramaswamy & Namakumari, Macmillan.
4. Marketing Whitebook

<b>Semester II</b>		<b>202 – Financial Management</b>
<b>3 Credits</b>	<b>LTP: 2:1:1</b>	<b>Compulsory Generic Core Course</b>

**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"> <li>• comment on financial position of the firm</li> <li>• estimate working capital required</li> <li>• decide ideal capital structure</li> <li>• evaluate various project proposals</li> </ul>
CO202.5	EVALUATING	EVALUATE impact of business decisions on Financial Statements, Working Capital, Capital Structure and Capital Budgeting of the firm

**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)

<b>Semester II</b>		<b>203 – Human Resource Management</b>
<b>3 Credits</b>	<b>LTP: 2:1:1</b>	<b>Compulsory Generic Core Course</b>

**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	REMEMBERING	ENUMERATE the emerging trends and practices in HRM.
CO203.3	UNDERSTANDING	ILLUSTRATE the different methods of HR Acquisition and retention.
CO203.4	APPLYING	DEMONSTRATE the use of different appraisal and training methods in an Organization.
CO203.5	ANALYSING	OUTLINE the compensation strategies of an organization
CO203.6	EVALUATING	INTERPRET the sample job descriptions and job specifications for contemporary entry level roles in real world organizations.

1. **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)**

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)**

3. **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)**

4. **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)**

5. **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:

1. Human Resource Management, Dr. S.S. Khanka, Sultan Chanda , Delhi
2. Human Resource Management, Deepak Bhattacharya, Sage Publishing Ltd.
3. Human Resource Management, Arun Monppa , Tata McGraw Hill Publishing Company
4. Human Resource Management, Mirza & Zaiyaddin
5. Human Resource Management, Dr. P.C.Pardeshi , Niramli Publication
6. Human Resource Management, R.S.Dwiwedi , Vikas Publishing House.
7. Human Resource Management, C.B.Mamoria , Himalaya Publishing House
8. Human Resource Management, Gary Dessler Dorling Kindersley Pvt Ltd.
9. Human Resource Management: Text and Cases, K Aswathappa , Tata McGraw Hill Publishing Company.
10. Performance Appraisal and Management, Himalaya Publishing House.

#### Suggested Reference Books:

1. Human Resource Management in Organizations, Izabela Robinson, Jaico Publishing House.
2. Armstrong's Essential Human Resource Management Practice - A guide to people management, Michael Armstrong, Koganpage.
3. Applied Psychology in Human Resource Management, Cascio & Aguins, PHI.

<b>Semester II</b>		<b>204 – Operations &amp; Supply Chain Management</b>
<b>3 Credits</b>	<b>LTP: 2:1:1</b>	<b>Compulsory Generic Core Course</b>

#### 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	UNDERSTANDING	DESCRIBE the various dimensions of production planning and control and their inter-linkages with forecasting.
CO204.4	APPLYING	CALCULATE inventory levels and order quantities and MAKE USE OF various inventory classification methods.
CO204.5	ANALYSING	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.

- 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, cyclic, pipeline, safety - Implications for Inventory Control Methods. Inventory Costs - Concept and behavior of ordering cost, carrying cost, 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**

<b>Semester I</b>		<b>107 – Management Fundamentals</b>
<b>2 Credits</b>	<b>LTP: 2:0:0</b>	<b>Generic Elective – University Level</b>

**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

<b>Semester I</b>		<b>108 – Indian Economy</b>
<b>2 Credits</b>	<b>LTP: 2:0:0</b>	<b>Generic Elective – University Level</b>

#### 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

<b>Semester I</b>		<b>109 – Entrepreneurship Development</b>
<b>2 Credits</b>	<b>LTP: 2:0:0</b>	<b>Generic Elective – University Level</b>

**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 Everett 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

<b>Semester I</b>		<b>110 – Essentials of Psychology for Managers</b>
<b>2 Credits</b>	<b>LTP: 2:0:0</b>	<b>Generic Elective – University Level</b>

**Course Outcomes: On successful completion of the course the learner will be able to**

<b>CO#</b>	<b>COGNITIVE ABILITIES</b>	<b>COURSE OUTCOMES</b>
CO110.1	REMEMBERING	DEFINE the basic concepts of psychology.
CO110.2	UNDERSTANDING	EXPLAIN the sensing and perceiving processes.
CO110.3	APPLYING	APPLY principles of learning and conditioning to human behavior.
CO110.4	ANALYSING	ILLUSTRATE the linkages between learning, memory and information processing.
CO110.5	EVALUATING	EXPLAIN the basic intrapersonal processes that influence social perception.

**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**(6)**

#### 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.

<b>Semester I</b>		<b>111 - Legal Aspects of Business</b>
<b>2 Credits</b>	<b>LTP: 2:0:0</b>	<b>Generic Elective – University Level</b>

**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), Types of agency. **(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, 1986,** Unfair & Restrictive Trade Practices, Dispute Redressal Forums – District, State & National Forum, Composition, Jurisdiction, Powers, Appellate Authority. **Information Technology Act, 2000,** Digital Signature, Electronic Governance, Electronic Records E – Contracts, E – Business models, E – Commerce & Security, Cyber Crimes. Intellectual Property Laws – Understanding of concepts of patents, copyrights, trademarks and designs. **(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

<b>Semester I</b>		<b>112 – Demand Analysis and Forecasting</b>
<b>2 Credits</b>	<b>LTP: 2:0:0</b>	<b>Generic Elective – University Level</b>

**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	IDENTIFY the pros and cons of various forecasting methods
CO112.4	ANALYSING	DECONSTRUCT a forecast into its various components
CO112.5	EVALUATING	BUILD a forecast for common products and services using time-series data.

- 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, Out-of-Sample Measurement, Forecast Value Added. Barometric Techniques - Leading, Lagging and Coincident Economic Indicators, Diffusion and Composite Indexes, Choose the Appropriate Forecasting Method Use of Software Packages for Forecasting such as EXCEL. **(5+1)**
- 5. New Product Forecasting:** Using Structured Judgment, 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, Model Step, Forecast 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

<b>Semester II</b>		<b>207 – Contemporary Frameworks in Management</b>
<b>2 Credits</b>	<b>LTP: 2:0:0</b>	<b>Generic Elective – University Level</b>

**Course Outcomes: On successful completion of the course the learner will be able to**

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO207.1	REMEMBERING	DEFINE Emotional Intelligence (EQ), IDENTIFY the benefits of emotional intelligence and RELATE the 5 Dimensions of Trait EI Model to the practice of emotional intelligence.
CO207.2	UNDERSTANDING	DESCRIBE how companies achieve transition from being good companies to great companies, and DISCUSS why and how most companies fail to make the transition.
CO207.3	APPLYING	APPLY the 21 laws that make leadership work successfully to improve your leadership ability and ILLUSTRATE its positive impact on the whole organization.
CO207.4	ANALYSING	EXAMINE the fundamental causes of organizational politics and team failure.
CO207.5	EVALUATING	EXPLAIN the approach to being effective in attaining goals by aligning oneself to the "true north" principles based on a universal and timeless character ethic.

1. **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

2. **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

3. **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

4. **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.

5. **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:**

1. Emotional Intelligence, Daniel Goleman
2. The 7 Habits of Highly Effective People: Powerful Lessons in Personal Change, Stephen R. Covey
3. 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

<b>Semester II</b>		<b>208 - Geopolitics &amp; World Economic Systems</b>
<b>2 Credits</b>	<b>LTP: 2:0:0</b>	<b>Generic Elective – University Level</b>

**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.

- 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:**

- Global Political Economy, Robert Gilpin, Princeton University Press
- International Trade Law An Interdisciplinary, Raj Bhala, Non-Western Textbook
- International Trade Law, Indira Carr and Peter Stone
- Development and Sustainability: India in a Global Perspective edited by Sarmila Banerjee, Anjan Chakrabarty

**Suggested Reference Books:**

- International Economics, Paul Krugman, Maurice Obstfeld and Marc Melitz, Pearson, Global Edition
- Globalizing Capital, A history of the International Monetary system, Barry Eichengreen, Princeton University Press.

<b>Semester II</b>		<b>209 - Start Up and New Venture Management</b>
<b>2 Credits</b>	<b>LTP: 2:0:0</b>	<b>Generic Elective – University Level</b>

**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

<b>Semester II</b>		<b>210 – Qualitative Research Methods</b>
<b>2 Credits</b>	<b>LTP: 2:0:0</b>	<b>Generic Elective – University Level</b>

**Course Outcomes: On successful completion of the course the learner will be able to**

CO#	COGNITIVE ABILITIES	COURSE OUTCOME
CO210.1	REMEMBERING	ENUMERATE the key terms associated with Qualitative research approach.
CO210.2	UNDERSTANDING	COMPARE and CONTRAST Qualitative research approach with the Quantitative approach.
CO210.3	APPLYING	CONSTRUCT appropriate research and sampling designs for Qualitative research work in real world business and non-business contexts
CO210.4	ANALYSING	ILLUSTRATE the use of appropriate qualitative research methods in real world business and non-business contexts.
CO210.5	EVALUATING	EVALUATE the quality of Qualitative Research work
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. **(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, 4<sup>th</sup> Edition, SAGE
2. Research Methods in the Social Sciences, Bridget Somekh & Cathy Lewin, 5<sup>th</sup> Edition, SAGE 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

<b>Semester II</b>		<b>211 – Business, Government &amp; Society</b>
<b>2 Credits</b>	<b>LTP: 2:0:0</b>	<b>Generic Elective – University Level</b>

**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

<b>Semester II</b>		<b>212 - Business Process Reengineering</b>
<b>2 Credits</b>	<b>LTP: 2:0:0</b>	<b>Generic Elective – University Level</b>

**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**

<b>Semester I</b>		<b>113 - Verbal Communication Lab</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Generic Elective – Institute Level</b>

**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
- Technical Communication, Anderson, P.V, Thomson Wadsworth, New Delhi
- The Oxford Guide to Writing and Speaking, John Seely, Oxford University Press, New Delhi
- Dictionary of Common Errors, Turton, N.D and Heaton, J.B, Addison Wesley Longman Ltd.

<b>Semester I</b>		<b>114 - Enterprise Analysis - Desk Research</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Generic Elective – Institute Level</b>

**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:**

- Students should work in groups of 3 to 5 each under the guidance of a faculty.
- Students shall carry out an indepth study of any THREE Organizations of their choice.
- Organizations selected should demonstrate a variety across sectors, ownerships, size, and other key dimensions.
- Students shall submit a structured detailed report.

**Suggested Text Books:**

- No text books are prescribed.
- 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.

<b>Semester I</b>		<b>115 - Selling &amp; Negotiations Skills Lab</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Generic Elective – Institute Level</b>

**Course Outcomes: On successful completion of the course the learner will be able to**

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO115.1	REMEMBERING	DESCRIBE the various selling situations and selling types.
CO115.2	UNDERSTANDING	OUTLINE the pre-sales work to be carried out by a professional salesperson.
CO115.3	APPLYING	IDENTIFY the key individuals involved in a real world sales process for a real world product/ service / e-product / e-service.
CO115.4	ANALYSING	FORMULATE a sales script for a real world sales call for a product/ service / e-product / e-service.
CO115.5	EVALUATING	DECONSTRUCT the pros and cons of sample real world sales calls for a product/ service / e-product / e-service.
CO115.6	CREATING	DEVELOP a sales proposal for a real world product/ service / e-product / e-service and for a real world selling situation.

- 1. Basics of Selling:** 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-P-A), 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. Problems with Positional Bargaining, Opening Up the Negotiation, Approaches to Better Negotiation, You Have Alternatives, 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 selling

**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.

**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
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<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Generic Elective – Institute Level</b>
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**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 at least **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.

<b>Semester I</b>		<b>118 - Managing Innovation</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Generic Elective – Institute Level</b>

**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.

- 1. 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)
- 2. 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)
- 3. 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)
- 4. 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)
- 5. 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.

<b>Semester II</b>		<b>213 - Written Analysis and Communication Lab</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Generic Elective – Institute Level</b>

**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.

- 1. 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)

2. **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.

<b>Semester II</b>		<b>214 - Industry Analysis - Desk Research</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Generic Elective – Institute Level</b>

**Course Outcomes: On successful completion of the course the learner will be able to**

<b>CO#</b>	<b>COGNITIVE ABILITIES</b>	<b>COURSE OUTCOMES</b>
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.

<b>Semester II</b>		<b>215 – Entrepreneurship Lab</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Generic Elective – Institute Level</b>

**Course Outcomes: On successful completion of the course the learner will be able to**

<b>CO#</b>	<b>COGNITIVE ABILITIES</b>	<b>COURSE OUTCOMES</b>
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

<b>Semester II</b>		<b>216 - SPSS</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Generic Elective – Institute Level</b>

**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.

- 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.
- 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
- 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.
- 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
- Advanced Tools:** Simple Linear Regression , Multiple regression analysis. Multidimensional scaling, Reliability Analysis, Factor analysis, Cluster analysis.

**Suggested Text Books:**

- Discovering Statistics Using SPSS, by Andy Field A, SAGE
- How to Use SPSS: A Step-By-Step Guide to Analysis and Interpretation by Brian C. Cronk

<b>Semester II</b>		<b>217 - Foreign Language II</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Generic Elective – Institute Level</b>

**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.

- 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)**
- 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)**
- 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)**
- 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)**
- 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./PI , 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**

<b>Semester I</b>		<b>FOU – 001: Elementary English</b>
<b>1 Credit</b>	<b>LTP: 0:2:0</b>	<b>Foundation Course (Elective)</b>

**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

<b>Semester I</b>		<b>FOU – 002: Elementary Mathematics and Statistics</b>
<b>1 Credit</b>	<b>LTP: 0:2:0</b>	<b>Foundation Course (Elective)</b>

**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)**
- 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)**
- Mathematical Operations for Business:** Percentage, Profit & Loss, Simple & Compound Interest. **(1)**
- Time and Number related Mathematical operations:** Time & Work, Time, Speed & Distance, Number System, Permutation, and Series. **(2)**
- Basic Statistics:** Classification and tabulation of data, presentation of data, graphical presentation of data by frequency curve, frequency polygon, ogives, histogram. **(2)**
- Set Theory:** Basic concepts, Venn diagrams, interpretation. **(2)**
- Trigonometry :** Basic Trigonometry, Area and Volume. **(1)**
- Equations:** Simultaneous Equations, Quadratic Equations. **(2)**

**References:**

- Rajagopalan and Sattanathan, Business Mathematics
- Praveen, R. V., Quantitative Aptitude and Reasoning, PHI Learning
- Goon Gupta and Das Gupta, Fundamentals of Statistics, Vol. 1, The World Press Pvt. Ltd., Kolkata.
- Sharma, Arun, How to prepare for Quantitative Aptitude for the CAT, Tata McGraw Hill

<b>Semester I</b>		<b>FOU – 003: Elementary Business Economics</b>
<b>1 Credit</b>	<b>LTP: 0:2:0</b>	<b>Foundation Course (Elective)</b>

**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.

- Concept of Economic Development, Concept of emerging, developed and developing economy, Concept of PPP **(1)**
- Economic Map of the Globe, Economic map of India. **(1)**
- Reserve Bank of India – composition, role, functions. **(1)**
- Economic Survey of India - Role, Scope, Objectives, Sections, Key highlights of last Economic Survey. **(1)**
- Union Budget - Role, Scope, Objectives, Sections, Key highlights of last Union Budget, Concept of Fiscal Deficit, Combined Fiscal Deficit. **(1)**
- 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

<b>Semester I</b>		<b>FOU – 004: Elementary Accounting</b>
<b>1 Credit</b>	<b>LTP: 0:2:0</b>	<b>Foundation Course (Elective)</b>

**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.

1. **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)
2. **Journal Entries** – Preparation of Journal and passing journal entries (2+1)
3. **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)
4. **Trial Balance** – Preparation of Trial Balance and Importance of Trial Balance in Accounting Process. (1+1)
5. **Final Accounts of Sole Proprietor** –Trading Account, Profit & Loss Account and Balance Sheet without adjustments. (2+1)

**Suggested Text Books:**

1. T.S. Grewal's Double Entry Book Keeping
2. Taxmann's Fundamentals of Accounting (CA CPT), CA D.G. Sharma
3. Book Keeping and Accountancy, Ainapure and Ainapure
4. Managerial Accounting, Dr. Mahesh Abale and Dr. Shriprakash Soni

**Suggested Reference Books:**

1. Financial Accounting for Management: Shankarnarayanan, Ramanath- CENGAGE Learning
2. Financial Accounting for Managers, Sanjay Dhmiya, Pearson Publications

3. Accounting For Management, Jawahar Lal
4. Accounting, Shukla Grewal

<b>Semester I</b>		<b>FOU – 005: Elementary Information Technology</b>
<b>1 Credit</b>	<b>LTP: 0:2:0</b>	<b>Foundation Course (Elective)</b>

**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.

1. **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)**
2. **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 Muthukumaran, Oxford University Press

<b>Semester I</b>		<b>FOU – 006: Elementary Business Etiquette</b>
<b>1 Credit</b>	<b>LTP: 0:2:0</b>	<b>Foundation Course (Elective)</b>

**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

<b>Semester II</b>		<b>FOU – 007: Elementary MS Word</b>
<b>1 Credit</b>	<b>LTP: 0:2:0</b>	<b>Foundation Course (Elective)</b>

#### 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

<b>Semester II</b>		<b>FOU – 008: Elementary MS Powerpoint</b>
<b>1 Credit</b>	<b>LTP: 0:2:0</b>	<b>Foundation Course (Elective)</b>

**Course Outcomes: On successful completion of the course the learner will be able to**

<b>CO#</b>	<b>COGNITIVE ABILITIES</b>	<b>COURSE OUTCOMES</b>
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

<b>Semester II</b>		<b>FOU – 009: Data Interpretation and Logical Reasoning</b>
<b>1 Credit</b>	<b>LTP: 0:2:0</b>	<b>Foundation Course (Elective)</b>

**Course Outcomes: On successful completion of the course the learner will be able to**

<b>CO#</b>	<b>COGNITIVE ABILITIES</b>	<b>COURSE OUTCOMES</b>
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

<b>Semester II</b>		<b>FOU – 010: Verbal Ability &amp; Reading Comprehension</b>
<b>1 Credit</b>	<b>LTP: 0:2:0</b>	<b>Foundation Course (Elective)</b>

**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

<b>Semester II</b>		<b>FOU – 011: Quantitative Ability</b>
<b>1 Credit</b>	<b>LTP: 0:2:0</b>	<b>Foundation Course (Elective)</b>

**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**

<b>Semester II</b>		<b>205MKT: Marketing Research</b>
<b>3 Credits</b>	<b>LTP: 2:1:1</b>	<b>Subject Core (SC) Course – Marketing Management</b>

**Course Outcomes: On successful completion of the course the learner will be able to**

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO205MKT.1	REMEMBERING	IDENTIFY and DESCRIBE the key steps involved in the marketing research process.
CO205MKT.2	UNDERSTANDING	COMPARE and CONTRAST various research designs, data sources, data collection instruments, sampling methods and analytical tools and SUMMARIZE their strengths & weaknesses.
CO205MKT.3	APPLYING	DEMONSTRATE an understanding of the ethical framework that market research needs to operate within.
CO205MKT.4	ANALYSING	ANALYSE quantitative data and draw appropriate Inferences to address a real life marketing issue.
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 Market Research and demonstrate the ability to appropriately analyse data to resolve a real life marketing issue.

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. **(3+1)**

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+1)**

**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) **(10+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. **(10+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. **(9+2)**

#### 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 Text 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.

<b>Semester II</b>		<b>206MKT: Consumer Behavior</b>
<b>3 Credits</b>	<b>LTP: 2:1:1</b>	<b>Subject Core (SC) Course – Marketing Management</b>

#### Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO206MKT.1	REMEMBERING	ENUMERATE social and psychological factors and their influence his/her behavior as a consumer.
CO206MKT.2	UNDERSTANDING	EXPLAIN fundamental concepts associated with consumer and organizational buying behavior.
CO206MKT.3	APPLYING	APPLY consumer behavior concepts to real world strategic marketing management decision making.
CO206MKT.4	ANALYSING	ANALYSE the dynamics of human behavior and the basic factors that influence the consumer's decision process.
CO206MKT.5	EVALUATING	EXPLAIN the consumer and organizational buying behavior process for a variety of products (goods/services).
CO206MKT.6	CREATING	DISCUSS the use of the Internet, e-commerce & information technology with respect to the changing consumer marketplace and ELABORATE on the various aspects of the changing Indian Consumer.

1. **Introduction to Consumer Behavior:** Definition, Consumer and Customers, Buyers and Users, Organizations as Buyers, Use of Market Segmentation in Consumer Behavior, Dimensions of Consumerism, 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, 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), Perceptual Selection, Perceptual Organization, Factors that Distort Individual Perception, Price Perceptions, Perceived Product and Service Quality, Consumer Risk Perceptions.
  - (c) **Consumer Learning, Memory and Involvement** - Components of Learning, Behavioral Theory, Cognitive Learning Theory, Memory System, Memory Process, Concept of Involvement, Dimensions of Involvement, Involvement and Types of Consumer Behavior, Cognitive Response Model, Elaboration Likelihood Model, Social Judgment Theory, Brand Loyalty and Brand Equity.
  - (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, 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 - 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, Time Factor in Diffusion Process, Culture, Communication and Diffusion. **(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, 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)

**Subject Elective (SE) Courses - Semester II**  
**Specialization: Marketing Management**

<b>Semester II</b>		<b>217MKT: Integrated Marketing Communications</b>
<b>2 Credits</b>	<b>LTP: 1:1:1</b>	<b>Subject Elective (SE) Course – Marketing Management</b>

**Course Outcomes: On successful completion of the course the learner will be able to**

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO217MKT.1	REMEMBERING	DESCRIBE the IMC mix and the IMC planning process.
CO217MKT.2	UNDERSTANDING	EXAMINE the role of integrated marketing communications in building brand identity, brand equity, and customer franchise.
CO217MKT.3	APPLYING	CONSTRUCT a marketing communications mix to achieve the communications and behavioural objectives of the IMC campaign plan.
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	DESIGN a sales promotion campaign and CHOOSE the avenues for Public Relations, Publicity and Corporate Advertising for a consumer and a business-to-business product.
CO217MKT.6	CREATING	DEVELOP an integrated cross-media strategy and creative message and concept to reach the target audience and deliver the brand promise through an IMC campaign for a variety of brands.

**1. Integrated Marketing Communication:** Integrated Marketing Communication, Evolution of Integrated Marketing Communication, Role of IMC in creating brand identity, brand equity, and customer franchise, 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, Structure of an Advertisement, Message Strategies, Cognitive strategies, Execution Strategies, Creating an Advertising, 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. **(10)**

**3. Advertising- II:**

- (a) **Media Planning and Strategies:** Growth and Importance of Media, Meaning and Role of Media Planning, Media Plan, 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, Directory Advertising.
- (c) **Broadcast and Internet Media:** Meaning of Broadcast Media, Radio as Medium, Television as Medium, Internet Advertising, Email Advertising. **(10)**

**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. **(4)**



**5. Public Relations, Publicity and Corporate Advertising:** Definition of Public Relations, Publicity and Corporate Advertising; 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.

<b>Semester II</b>		<b>218MKT: Product and Brand Management</b>
<b>2 Credits</b>	<b>LTP: 1:1:1</b>	<b>Subject Elective (SE) Course – Marketing Management</b>

**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 strategy.
CO218MKT.2	UNDERSTANDING	EXPLAIN the process and methods of 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	COLLECT brand audit data using appropriate tools and PROPOSE strategic recommendations for Reinforcing / Revitalizing / Rejuvenating failed Brands for real life consumer, business products and services 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, Customer based Brand equity, Brand knowledge, Sources of brand equity - Brand Awareness, Brand Image. **(7)**

**4. Planning and Implementing Brand Marketing Programs:** The Four steps of brand building, creating customer value, Identifying and establishing brand positioning, Positioning guidelines, 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, Brand architecture, Brand hierarchy, Designing brand strategy, New products, Brand extensions- advantage and disadvantage, 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

**Suggested Reference Books:**

1. Product Management, Dr. C. Anandan, TMGH
2. Product & Brand Management, U.C. Mathur, Excel books
3. Building Brand Equity, David Aaker
4. Branding Concepts & Process, Debashish Pati
5. Brand Positioning Strategies for Competitive Advantage, Subrato Sen Gupta

<b>Semester II</b>		<b>219MKT: Personal Selling Lab</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Subject Elective (SE) Course – Marketing Management</b>

**Course Outcomes: On successful completion of the course the learner will be able to**

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO219MKT.1	REMEMBERING	LIST the key terms in selling and DESCRIBE the qualities of Winning Sales Professionals
CO219MKT.2	UNDERSTANDING	EXPLAIN the theories and concepts that are central to personal selling.
CO219MKT.3	APPLYING	Apply the interpersonal and team skills necessary in successful relationship selling.
CO219MKT.4	ANALYSING	ILLUSTRATE the use of various sales techniques needed to achieve a profitable sale in a real world scenario 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 to creating successful sales in a real world scenario for a real world product/ service / e-product / e-service.
CO219MKT.6	CREATING	CREATE sales presentation 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 importance of personal selling, 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, Career in Personal Selling / Sales; What Companies Look for in New Salespeople. (4)

**2. Personal Selling Process:** 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; 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:** 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:** 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, 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:** 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

<b>Semester II</b>		<b>220MKT: Digital Marketing - I</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Subject Elective (SE) Course – Marketing Management</b>

#### 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 Planning and Structure:** Inbound vs Outbound Marketing, Content Marketing, Understanding Traffic, Understanding Leads, Strategic Flow for Marketing Activities. 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, SEO Overview, Google Analytics Tracking Code, Website Auditing, Designing Wordpress Website. **(5+1)**

**2. Facebook Marketing Fundamentals:** Profiles and Pages, Business Categories, Getting Assets Ready, Creating Facebook Pages, Page Info and Settings, Facebook Page Custom URL, Invite Page Likes, Featured Video, Pin Post and Highlights, Scheduling Posts, Facebook Events, Reply and Message, Facebook Insights Reports, Competitor's Facebook Page, Ban User on Facebook Page, Connect with Twitter. Facebook Ad Campaigns: Organic v/s Paid, Defining Ad Objective, Performance Matrix, Ad Components, Designing Creative Image, Facebook Ad Structure, Setting Up Facebook Ad Account, Create Ad –Targeting, Create Ad –Budgeting, Create Ad –Creative, Content and CTA, Boosting Page Posts, Page Promotion, Video Promotion, Similar Ads and Audiences, Tracking Pixels Code, Remarketing -Website Visitors, Custom Audiences -Look Alike, Custom Audience -Saved Group, Managing and Editing Ads, Ad Reports and Ad Insights, Billing and Account. Facebook Business Manager, People, Pages and Roles, Ad Accounts Configurations, Ad Agencies and Assigning, Shared Login for FB Business A/c, Power Editor, Email Targeting on Facebook, Facebook Offers, CTA on Page, Posts for Location, Save Time with Third Party Tools, Case Studies. **(5+1)**

**3. Google Adwords:** Understanding Adwords, Google Ad Types, Pricing Models, PPC Cost Formula, Ad Page Rank, Billing and Payments, Adwords User Interface, Keyword Planning, Keywords Control, Creating Ad Campaigns, Creating Text Ads, Creating Ad Groups, Bidding Strategy for CPC, Case Studies. PPC, CPM, CPA , Other Measuring Tools, Bidding Strategy on Location, Bidding Strategy on Schedule, Bidding Strategy on Devices, Conversion Tracking Code, Designing Image Ads, Creating Animated Ads, Examples on Animated Ads, Creating Video Ads, Youtube Video Promotion, Hi-Jack Competitor's Video Audience, Case Studies. Remarketing Strategies, Remarketing Rules, Remarketing Tracking Code, Linking Google Analytics, Designing Remarketing Images, Shared Budget, GWD Software, Case Studies. **(5+1)**

**4. YouTube Marketing:** Video Flow, Google Pages for YouTube Channel, Verify Channel, Webmaster Tool –Adding Asset, Associated Website Linking, Custom Channel URL, Channel ART, Channel Links, Channel Keywords, Branding Watermark, Featured Contents on Channel, Channel Main Trailer, Uploading Videos, Uploading Defaults, Creator Library, Case Studies. Channel Navigation, Video Thumbnail, CTA –Annotation, CTA –Extro, CTA –Cards for Mobile, Redirect Traffic to Website, Post Upload Enhancements, Live Broadcasting, Managing Playlists, Managing Comments, Managing Messages, Monetization with Adsense, Paid YoutubeChannel, Channel Analytics, Real Time Analytics, Case Studies. **(5+1)**

**5. Email Marketing - 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, Buyer vs Consumer. Email Software and Tools, Importing Email Lists, Planning Email Campaign, Email Templates and Designs, Sending HTML Email Campaigns, Web Forms Lead Importing, Integrating Landing Page Forms, Campaign Reports and Insights, Segmentation Strategy, Segmentation Lists, Auto-Responder Series, Triggering Auto – Responder Emails, Auto Responder Actions, Case Studies. **(5+1)**

#### Suggested Text Books:

1. Google Adwords for Beginners: A Do-It-Yourself Guide to PPC Advertising, Cory Rabazinsky,
2. Email Persuasion: Captivate and Engage Your Audience, Build Authority and Generate More Sales With Email Marketing, Ian Brodie
3. Social Media Marketing All-In-One for Dummies, Jan Zimmerman and Deborah

<b>Semester II</b>		<b>221MKT: Marketing of Financial Services - I</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Subject Elective (SE) Course – Marketing Management</b>

#### Course Outcomes: On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO221MKT.1	REMEMBERING	RECALL and DESCRIBE the key terminology of Financial Services.
CO221MKT.2	UNDERSTANDING	DESCRIBE the various types of financial products and services.
CO221MKT.3	APPLYING	DEVELOP FAQs for each kind of financial products and services from an investment advisor's perspective.
CO221MKT.4	ANALYSING	COMPARE and CONTRAST the various types of financial products and services and ILLUSTRATE their benefits and limitations.
CO221MKT.5	EVALUATING	EVALUATE the financial products and services from an investment perspective for various kinds of investors.

CO221MKT.6	CREATING	COLLECT the application forms for all kinds of investments and DISCUSS each of them.
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- 1. Financial Market Fundamentals: 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. **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, Hedge Funds etc.) **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.) **(5+1)**
- 2. Mutual Funds: Basic Concepts:** 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. **Types:** 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. Basic understanding of ETFs and their key features. Differences between a Mutual Fund and an ETF. 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. **Investment Advisors:** Guidelines for Investment Advisors while selling Mutual Funds to the clients. **(5+1)**
- 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, extent of insurance value, and conditions. **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. **Marketing Channels in Insurance Markets:** Various channel members in the Industry such as Insurance Agents, Distributors, etc. **Basic Understanding:** Property and casualty/liability insurance, Commercial Insurance, Health Insurance. **(5+1)**
- 4. 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. **(5+1)**
- 5. 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. (5+1)**

**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

<b>Semester II</b>		<b>222MKT: Marketing of Luxury Products</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Subject Elective (SE) Course – Marketing Management</b>

**Course Outcomes: On successful completion of the course the learner will be able to**

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO222MKT.1	REMEMBERING	RECALL and DESCRIBE the key concepts and principles of luxury brand management and marketing.
CO222MKT.2	UNDERSTANDING	DESCRIBE the unique consumer behavior in the context of luxury products .
CO222MKT.3	APPLYING	IDENTIFY potential new luxury products and how they relate to a variety of markets, including emerging markets & India.

CO222MKT.4	ANALYSING	COMPARE and CONTRAST the luxury products , brands and industry with routine products, brands and industry.
CO222MKT.5	EVALUATING	ASSESS internal and external factors impacting the luxury markets, nationally, internationally and globally.
CO222MKT.6	CREATING	Formulate marketing strategy for contemporary luxury products and brand.

- Theoretical foundations of luxury management:** 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. **(5+1)**
- Methodological approaches to understanding luxury:** Identifying a luxury product: basic approaches and 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. **(5+1)**
- Luxury Segmentation, Targeting, Positioning & Marketing Mix:** Pursuing long term profitability through sound marketing strategies. **Market segmentation** beyond the socioeconomic. **Positioning** – (a) Identity management - Communication policy, managing creativity, corporate image and volatility, (b) Channel management **Luxury marketing mix:** product policy, price policy, distribution policy, Craftsmanship: How are things made and why it matters, Communicating & Distributing Luxury. **(5+1)**
- International luxury markets:** historical leaders and emerging countries, Binary Conventions in Luxury: East vs. West; Masculine vs. Feminine; Seriousness vs. Humor, What does Culture have to do with luxury and how you can use it to market luxury effectively. **(5+1)**
- Luxury retail:** The beauty & fragrance industries, Fine Jewelry & timepieces; Accessories; Art, Beauty products, Hospitality, Automotive, Fashion. **(5+1)**

**Suggested Text Books:**

- The Luxury Strategy, Kapferer, Jean-Noel and V. Bastien, Kogan Press

**Suggested Reference Books:**

- The Luxury Strategy: Break the Rules of Marketing to Build the Luxury Brand, Bastien Vincent, Kapferer Jean-Noël, Kogan Page
- The idea of prestige: A conceptual and historical investigation, Berry, C.J., Cambridge University Press.
- Economics and consumer behavior, Deaton, A., & Muellbauer, J., Cambridge University Press.

**Subject Core (SC) Courses - Semester II**  
**Specialization: Financial Management**

<b>Semester II</b>		<b>205FIN: Financial Markets and Banking Operations</b>
<b>3 Credits</b>	<b>LTP: 2:1:1</b>	<b>Subject Core (SC) Course – Financial Management</b>

**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)**

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)**

3. **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)**

4. **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)**

5. **Concepts in Banking and Accounting of transactions:** Accounting in banks, Electronic Banking, RTGS, ATM, MICR, OCR, OMR, and DATANET, Petty Cash, Electronic Clearing Service (ECS), National Electronic Funds Transfer (NEFT) System, Real Time Gross Settlement (RTGS) System, IMPS. **(7+2)**

#### Suggested Text Books:

1. Indian Financial Services, M Y Khan
2. Marketing of Financial Services, Dr D Guruswamy
3. Financial Services In India, Avadhani,V.A.
4. Risk and Insurance Concepts , P Perriasamy, M Veerasevalam
5. Financial services of India, Dr. D Guruswamy
6. Capital Markets & Financial Services, Anil Agashe
7. Financial services, M. Y. Khan

<b>Semester II</b>		<b>206FIN: Personal Financial Planning</b>
<b>3 Credits</b>	<b>LTP: 2:1:1</b>	<b>Subject Core (SC) Course – Financial Management</b>

#### 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**

<b>Semester II</b>		<b>217FIN: Securities Analysis &amp; Portfolio Management</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Subject Elective (SE) Course – Financial Management</b>

**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 taught in the syllabus.
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.

1. **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)**
2. **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)**
3. **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)**
4. **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)**

5. **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:

1. Investment Analysis and Portfolio Management, Chandra, Prasanna (Tata McGraw Hill Publishing Co. Ltd.)
2. Securities Analysis & Portfolio Mgmt., V A Avadhani ,Himalaya Publications
3. Security Analysis and Portfolio Management, S. Kevin, PHI Learning Pvt. Ltd.
4. Investment Analysis & Portfolio Management, Ranganathan & Madhumathi , Pearson Education Pvt. Ltd.

#### Suggested Reference Books:

1. Security Analysis and Portfolio Management, Fischer DE & Jordan R J, Prentice Hall.
2. Portfolio Management, Barua, S. K.; Raghunathan V; Varma, J R ,Tata McGraw Hill Publishing Co. Ltd.
3. Investment Analysis and Portfolio Management, Frank K. Reilly and Keith C. Brown ,Thomson Learning
4. Modern Investments and Security Analysis, Fuller R J; Farrel JL ,McGraw Hill
5. Investment Management, V.K. Bhalla ,S.Chand & Co.
6. Security Analysis & Portfolio Management, S.Bhat, Excel Books
7. Security Analysis and Portfolio Management, Punithavathy P., Vikas Publishing
8. Security Analysis and Portfolio Management, A.P. Dash, I.K. International

<b>Semester II</b>		<b>218FIN: Futures &amp; Options</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Subject Elective (SE) Course – Financial Management</b>

**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 related to Derivatives, Types of Derivative products and Risk Management
CO218FIN.2	UNDERSTANDING	EXPLAIN in detail the terminology used in the Futures and Options segment of finance domain
CO218FIN.3	APPLYING	UNDERSTAND and DIFFERENTIATE between Options and Futures pricing and apply the understanding in the simulated virtual trading platform.
CO218FIN.4	ANALYSING	ANALYZE and offer optimum solutions in the cases of risk management through hedging with futures and options.
CO218FIN.5	EVALUATING	EVALUATE the various derivative strategies for their application in different situations.

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 Specifications - 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. **(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

<b>Semester II</b>		<b>219FIN: Direct Taxation</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Subject Elective (SE) Course – Financial Management</b>

**Course Outcomes: On successful completion of the course the learner will be able to**

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO219FIN.1	REMEMBERING	UNDERSTAND various basic concepts/ terminologies related Direct Taxation
CO219FIN.2	UNDERSTANDING	EXPLAIN how tax planning can be done.
CO219FIN.3	UNDERSTANDING	ILLUSTRATE how online filling of various forms and returns can be done.
CO219FIN.4	APPLYING	CALCULATE Gross Total Income and Income Tax Liability of an individual assessee.
CO219FIN.5	ANALYSING	ANALYZE and DISCOVER intrinsic value of a security.
	EVALUATING	DESIGN/ DEVELOP / CREATE tax saving plan.

1. **Introduction:** Introduction of Income Tax Act, 1961, Basic definitions and concepts – Direct Tax, Indirect Tax, Person, Assessee, Deemed Assessee, Assessment Year, Previous Year, Residential Status of an individual assessee and company, Income exempt from Tax– Gratuity, Leave Travel Concession, Encashment of Unutilized Earned Leave on Retirement, Pension, Voluntary Retirement Receipts, Retrenchment Compensation, Receipts from Life Insurance Corporation, HRA, Payment from NPS Trust to an assessee on closure of his account/ Opting out of the pension scheme and Payment from NPS Trust to an employee on partial withdrawal, Agriculture Income. **(3+2)**
2. **Income under the Head “Salaries”& “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”:** 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

<b>Semester II</b>		<b>220FIN: Financial Reporting</b>
<b>2 Credits</b>	<b>LTP: 2:1:1</b>	<b>Subject Elective (SE) Course – Financial Management</b>

**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.

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

<b>Semester II</b>		<b>221FIN: Securities Analysis &amp; Portfolio Management</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Subject Elective (SE) Course – Financial Management</b>

**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.

- 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)**
- 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)**
- 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)**
- Non-Performing Assets:** Present NPA norms, Features of special accounts, willful defaulters, recovery measures. **(5 +1)**
- 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:**

- Basics of Banking and Finance, Dr.K., Bhattacharya ,O.P.Agarwal
- Principles & Practices of Banking, Indian Institute of Banking and Finance
- Banking Theory & Practices, KC Shekhar, Lekshmy Shekhar
- Banking Reforms and Lead Bank Scheme, Uday Kumar Lal Das
- Essentials of Banking and Finance, Gautam Majumdar
- Credit Monitoring, Legal Aspects & Recovery of Bank loan, V.Rajaraman

**Suggested Reference Books:**

- Master circulars of RBI
- The Economic Times

<b>Semester II</b>		<b>222FIN: Banking Laws &amp; Regulations</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Subject Elective (SE) Course – Financial Management</b>

**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.

- 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)**
- 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:**

- All Publications of IIBF and NIBM
- All Bare Acts mentioned in the syllabus

<b>Semester II</b>		<b>223FIN: Fundamentals of Life Insurance – Products and Underwriting</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Subject Elective (SE) Course – Financial Management</b>

**Course Outcomes: On successful completion of the course the learner will be able to**

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO223FIN.1	REMEMBERING	RECALL all the concepts pertaining to Life Insurance covered in the course syllabus.
CO223FIN.2	UNDERSTANDING	Explain all the concepts pertaining to Life Insurance covered in the course syllabus.
CO223FIN.3	UNDERSTANDING	DETERMINE the key elements of the Life Insurance Products and Services.
CO223FIN.4	UNDERSTANDING	APPLY the life insurance product knowledge to suit to the clients' needs.
CO223FIN.5	APPLYING	DESIGN the life insurance cover strategy for clients.

- Life Insurance** - Introduction: History and evolution, Functions of Insurance, Advantages of Life insurance, Terminologies in Life Insurance. (4+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)
- Life Insurance Products** –Term Insurance, Endowment Policy, Whole-Life Policy, Child Policy, Unit Linked Insurance Policy and other relevant products. (4+2)
- Underwriting** – Meaning of Underwriting, Underwriting Process, Underwriting Considerations, Renewals, Lapse and Claims. (4+2)
- Regulatory Aspects and Ethics** –IRDA and its role, Ethics in the Insurance Industry and their importance. (4+2)

**Suggested Text Books:**

- Insurance and Risk Management, 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

**Suggested Reference Books:**

- Principles of Risk Management and Insurance, George Rejda, Pearson Education
- Risk Management and Insurance by Trieschmann

<b>Semester II</b>		<b>224FIN: General Insurance – Health and Vehicle</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Subject Elective (SE) Course – Financial Management</b>

**Course Outcomes: On successful completion of the course the learner will be able to**

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO224FIN.1	REMEMBERING	DESCRIBE the various terms related to General insurance and Health Insurance.
CO224FIN.2	UNDERSTANDING	UNDERSTAND General insurance, Health Insurance (including travel insurance) and Motor / Vehicle Insurance
CO224FIN.3	ANALYSING	COMPARE and CONTRAST insurance plans
CO224FIN.4	ANALYSING	ANALYZE and USE risk management techniques
CO224FIN.5	EVALUATING	FACILITATE the development of an insurance claim.
CO224FIN.6	EVALUATING	FACILITATE the compliance required for acquiring the policy and settlement of claims.

1. **General Insurance:** Introduction: History and evolution, How General insurance works, Advantages of General insurance, Principles of Insurance, Insurable interest, Subrogation and Contribution, Types of General Insurance, General Insurance Products in India, Specialized Insurances i.e.Oil & Energy Risks insurance – Satellite insurance. **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 – Salvage – 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**

<b>Semester II</b>		<b>205HRM: Competency Based Human Resource Management System</b>
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<b>3 Credits</b>	<b>LTP: 2:1:1</b>	<b>Subject Core (SC) Course – Human Resource Management</b>
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**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

<b>Semester II</b>		<b>206HRM: Employee Relations and Labour Legislations</b>
<b>3 Credits</b>	<b>LTP: 2:1:1</b>	<b>Subject Core (SC) Course – Human Resource Management</b>

**Course Outcomes: On successful completion of the course the learner will be able to**

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
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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**



<b>Semester II</b>		<b>217HRM: Labour Welfare</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Subject Elective (SE) Course – Human Resource Management</b>

**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 actives-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, Punekar, 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

<b>Semester II</b>		<b>218HRM: Lab in Recruitment and Selection</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Subject Elective (SE) Course – Human Resource Management</b>

**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

<b>Semester II</b>		<b>219HRM: Learning &amp; Development</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Subject Elective (SE) Course – Human Resource Management</b>

**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.

<b>Semester II</b>		<b>220HRM: Public Relations &amp; Corporate Communications</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Subject Elective (SE) Course – Human Resource Management</b>

**Course Outcomes: On successful completion of the course the learner will be able to**

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
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.

- 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)
- Media Relations:** Building maintaining relationship with credibility with media, Developing methodologies for successful practice of media relations (5+1)
- 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)
- Communication Management** : Presentation skills, Developing strategic communication plan, Synthesizing internal & external initiatives, Event Management (4+1)
- 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:**

- Public Relations, Phillip Henslowe, Chartered Institute of PR

**Suggested Reference Books:**

- Public Affairs in Practice, Stuart Thomson & Stevee John, Chartered Institute of PR
- Develop your PR Skills, Neil Richardson & Lucy Laville, The Sunday Times,
- Creativity in PR, Andy Green, Chartered Institute of PR
- Running a PR Department, Mike Beard, Chartered Institute of PR

<b>Semester II</b>		<b>221HRM: HR Analytics</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Subject Elective (SE) Course – Human Resource Management</b>

**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.

- 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

<b>Semester II</b>		<b>222HRM: Conflict &amp; Negotiation Management</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Subject Elective (SE) Course – Human Resource Management</b>

**Course Outcomes: On successful completion of the course the learner will be able to**

<b>CO#</b>	<b>COGNITIVE ABILITIES</b>	<b>COURSE OUTCOMES</b>
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

<b>Subject Core (SC) Courses - Semester II</b> <b>Specialization: Operations &amp; Supply Chain Management</b>
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<b>Semester II</b>		<b>205OSCM: Service Operations Management – I</b>
<b>3 Credits</b>	<b>LTP: 2:1:1</b>	<b>Subject Core (SC) Course – Operations &amp; Supply Chain Management</b>

**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

<b>Semester II</b>		<b>206OSCM: Supply Chain Management</b>
<b>3 Credits</b>	<b>LTP: 2:1:1</b>	<b>Subject Core (SC) Course – Operations &amp; Supply Chain Management</b>

#### 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)**

- 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)**
- 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:**

- Supply Chain & Logistics Management, Bowersox, Closs & Cooper, Tata McGraw Hill
- Designing & Managing the SC – Concepts, Strategies & Case studies, Levi, Kaminsky et. al., Tata McGraw Hill
- Supply Chain Management: Strategy Planning & Operations, Sunil Chopra, Peter Meindl, Pearson

**Suggested Reference Books:**

- Supply Chain Management Process, System & Practice, N.Chadrsekaran, Oxford
- Total Supply Chain Management, Basu & Wright, Elsevier
- Logistics Management & Strategy, Harrison and van Hoek, Prentice Hall
- Supply Chain Management, Mentzer, Response Books.
- Logistics Management: The Supply Chain Imperative, Vindo Sople, Pearson Education.

<b>Subject Elective (SE) Courses - Semester II</b> <b>Specialization: Operations &amp; Supply Chain Management</b>
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<b>Semester II</b>		<b>217OSCM: Planning &amp; Control of Operations</b>
<b>2 Credits</b>	<b>LTP: 1:1:1</b>	<b>Subject Elective (SE) Course – Operations &amp; Supply Chain Management</b>

**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.

- 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)**
- 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)**
- 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)**
- 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)**
- 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.

<b>Semester II</b>		<b>218OSCM: Productivity Management</b>
<b>2 Credits</b>	<b>LTP: 1:1:1</b>	<b>Subject Elective (SE) Course – Operations &amp; Supply Chain Management</b>

**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

<b>Semester II</b>		<b>219OSCM: Inventory Management</b>
<b>2 Credits</b>	<b>LTP: 1:1:1</b>	<b>Subject Elective (SE) Course – Operations &amp; Supply Chain Management</b>

**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.
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- 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)**
- 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)**
- 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)**
- 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)**
- 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:**

- Operations Management: Theory and Practice, B Mahadevan, Pearson.
- Operations Management-Process and Value Chains, Krajewski, Ritzman, Malhotra, Pearson.
- Operations Management: Quality and Competitiveness in a Global Environment, Russell and Taylor, Wiley India.

**Suggested Reference Books:**

- Introduction to Materials Management, J.R.Tony and Arnold.
- Inventory Control and Management, Donald Waters, Wiley Student Edition.
- Just-in-Time Manufacturing, Korgaonker, Macmillan
- Essentials of Inventory Management, Max Muller, JAICO Publishing

<b>Semester II</b>		<b>220OSCM: Theory of Constraints</b>
<b>2 Credits</b>	<b>LTP: 1:1:1</b>	<b>Subject Elective (SE) Course – Operations &amp; Supply Chain Management</b>

**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.

- 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)**
- Finance and Measures:** Economic Decisions, TOC and Product Costing, Economic Decisions using TOC Costing. **(5+1)**
- 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

<b>Semester II</b>		<b>221OSCM: Quality Management Standards</b>
<b>2 Credits</b>	<b>LTP: 1:1:1</b>	<b>Subject Elective (SE) Course – Operations &amp; Supply Chain Management</b>

**Course Outcomes: On successful completion of the course the learner will be able to**

<b>CO#</b>	<b>COGNITIVE ABILITIES</b>	<b>COURSE OUTCOMES</b>
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.

1. **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 it's 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)**

2. **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)**

3. **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)**

4. **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)**

5. **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:**

1. Mastering ISO 9001:2015: A Step-By-Step Guide To The World's Most Popular Management Standard, Gregory Peckford
2. Understanding ISO 9001: 2015 Quality Management System, Virendra Kumar Gupta
3. ISO 9001: 2015 - A Complete Guide to Quality Management Systems, Itay Abuhav
4. Operations Management: An Integrated Approach, Danny Samson and Prakash Singh, Cambridge University Press.
5. Managing Quality, Barrie G Dale, Ton van der Wiele and Jos van Iwaarden (Editors),Blackwell Publishing
6. ISO 9001:2015 Standard

<b>Semester II</b>		<b>222OSCM: Service Value Management</b>
<b>2 Credits</b>	<b>LTP: 1:1:1</b>	<b>Subject Elective (SE) Course – Operations &amp; Supply Chain Management</b>

**Course Outcomes: On successful completion of the course the learner will be able to**

<b>CO#</b>	<b>COGNITIVE ABILITIES</b>	<b>COURSE OUTCOMES</b>
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.

1. **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)**
2. **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

<b>Semester II</b>		<b>223OSCM: Industry 4.0</b>
<b>2 Credits</b>	<b>LTP: 1:1:1</b>	<b>Subject Elective (SE) Course – Operations &amp; Supply Chain Management</b>

**Course Outcomes: On successful completion of the course the learner will be able to**

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO223OSCM.1	REMEMBERING	DESCRIBE the drivers, enablers and compelling forces for Industry 4.0's advancement.
CO223OSCM.2	UNDERSTANDING	UNDERSTAND the power of Cloud Computing in a networked economy.
CO223OSCM.3	APPLYING	IDENTIFY the opportunities, challenges brought about by Industry 4.0.
CO223OSCM.4	ANALYSING	OUTLINE the various systems used in a manufacturing plant and their role in an Industry 4.0 paradigm.
CO223OSCM.5	EVALUATING	APPRAISE the smartness in Smart Factories, Smart cities, smart products and smart services.
CO223OSCM.6	CREATING	PREDICT how organizations and individuals should prepare to reap the benefits.

1. **Introduction to Industry 4.0:** Overview of the Various Industrial Revolutions, Digitization and the Networked Economy, Industry 4.0 Paradigm, Industry 4.0 characteristics – Interoperability, Virtualization, Decentralization, Real-time capability, Service orientation, Modularity, Convergence, Cost reduction and efficiency, Mass customization. Drivers, Enablers, Compelling Forces and Challenges for Industry 4.0, Evolution in USA, Europe, China and other countries, Comparison of Industry 4.0 Factory and Today's Factory, Trends of Industrial Big Data and Predictive Analytics for Smart Business Transformation. **(7+1)**

2. **Key Building Blocks:** Internet of Things (IoT), Industrial Internet of Things (IIoT), Internet of Services, Smart Manufacturing, Smart Devices and Products, Smart Logistics, Smart Cities, Predictive Analytics. **(4+1)**

3. **Technological Ecosystem:** Technologies for enabling Industry 4.0, Cyberphysical Systems, Robotic Automation and Collaborative Robots, Support System for Industry 4.0, Mobile Computing, Related Disciplines, Issues of Cyber Security. **(4+1)**

4. **Data as a resource:** Role of data, information, knowledge and collaboration in future organizations, Resource-based view of a firm, Data as a new resource for organizations, Harnessing and sharing knowledge in organizations, Cloud Computing Basics, Cloud Computing and Industry 4.0 **(5+1)**

5. **Applications and the way ahead:** Automotive, Agriculture, Retail, Healthcare, Fintech, Manufacturing, Applications and Case Studies: Industry 4.0 laboratories, IIoT case studies, Business issues in Industry 4.0 - Opportunities and Challenges, Future of Works and Skills for Workers in the Industry 4.0 Era, Strategies for competing in an Industry 4.0 world. **(5+1)**

**Suggested Text Books:**

1. Industry 4.0: Managing The Digital Transformation, Ustundag, Alp, Cevikcan, Emre, Springer.
2. Hands-On Industrial Internet of Things: Create a powerful Industrial IoT infrastructure using Industry 4.0, Giacomo Veneri.
3. Internet of Things: A Hands-On Approach, Arsheep Bahga.
4. Industry 4.0: The Industrial Internet of Things Paperback, Alasdair Gilchrist.

**Subject Core (SC) Courses - Semester II**  
**Specialization: Business Analytics**

<b>Semester II</b>		<b>205BA: Basic Business Analytics using R</b>
<b>3 Credits</b>	<b>LTP: 2:1:1</b>	<b>Subject Core (SC) Course – Business Analytics</b>

**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	SELECT the right functions of R for the 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. 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 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

**Suggested Reference Books:**

- Statistical data analysis explained: applied environmental statistics with R, Clemens Reimann. Chichester: John Wiley and Sons
- Data science in R: a case studies approach to computational reasoning and problem solving, Deborah Nolan. Boca Raton: CRC Press
- The analytics revolution: how to improve your business by making analytics operational in the big data era, Bill Franks. Hoboken: Wiley
- Taming the big data tidal wave: finding opportunities in huge data streams with advanced analytics, Bill Franks. Hoboken: John Wiley & Sons.
- Big data, big analytics: emerging business intelligence and analytic trends for today's business, Michael Minelli. Hoboken: John Wiley & Sons

<b>Semester II</b>		<b>206BA: Data Mining</b>
<b>3 Credits</b>	<b>LTP: 2:1:1</b>	<b>Subject Core (SC) Course – Business Analytics</b>

**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 using 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.

- 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)**
- 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)**
- 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)**
- Clustering:** Partitional and Hierarchical Clustering Methods, Graph-based Methods, Density-based Methods, Cluster Validation, Applications: Customer Profiling, Market Segmentation. **(9+1)**
- 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 Text Books:**

- Data Mining: The Textbook by Charu C. Aggarwal
- Data Science for Business by Foster Provost and Tom Fawcett, O'Reilly
- Introduction to Data Mining by Pang-Ning Tan, Michael Steinbach, Vipin Kumar, Addison Wesley
- Data Mining and Analysis: Fundamental Concepts and Algorithms by Mohammed J. Zaki and Wagner Meira

**Subject Elective (SE) Courses - Semester II**  
**Specialization: Business Analytics**

<b>Semester II</b>		<b>217BA: Marketing Analytics</b>
<b>2 Credits</b>	<b>LTP: 1:1:1</b>	<b>Subject Elective (SE) Course – Business Analytics</b>

**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

<b>Semester II</b>		<b>218BA: Retailing Analytics</b>
<b>2 Credits</b>	<b>LTP: 1:1:1</b>	<b>Subject Elective (SE) Course – Business Analytics</b>

**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)**

4. **Data sources:** Customer, Retailer, Supplier, Market, Web, Mobile, Social, Call Centres,. (3)
5. **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)
6. **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)
7. **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)
8. **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)
9. **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)
10. **Customer View:** Customer Insights, Omni channel insights, Personalization, merchandise Data sources, including operations and supplier. (3)

**Suggested Text Books:**

1. Retail Analytics – The Secret Weapon, Emmett Cox
2. Behaviour Analytics in Retail, Ronny Max
3. The Little Book on Big Data: Understand Retail Analytics Through Use Cases and Optimize Your Business, Mahogany Beckford
4. The New Science of Retailing: How Analytics are Transforming the Supply Chain and Improving Performance, Fisher and Raman
5. The Strategy and Tactics of Pricing: A Guide to Growing More Profitably, Nagle, Hogan and Zale, Prentice-Hall
6. Competing on Analytics, Davenport, Harris
7. The New Rules of Retail: Competing in the World's Toughest Marketplace, Lewis and Dart
8. Sales Promotions, Neslin, Marketing Science Institute

<b>Semester II</b>		<b>219BA: Workforce Analytics</b>
<b>2 Credits</b>	<b>LTP: 1:1:1</b>	<b>Subject Elective (SE) Course – Business Analytics</b>

**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, Fulfillment 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

<b>Semester II</b>		<b>220BA: Tableau</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Subject Elective (SE) Course – Business Analytics</b>

**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

<b>Semester II</b>		<b>221BA: Data Warehousing Project Life Cycle Management</b>
<b>2 Credits</b>	<b>LTP: 0:3:1</b>	<b>Subject Elective (SE) Course – Business Analytics</b>

#### 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, 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

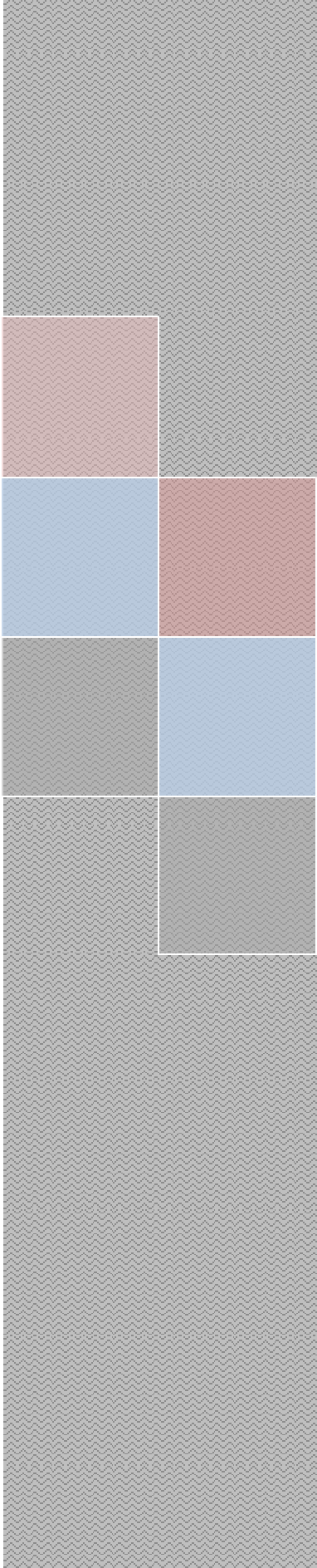
Loading, ETL Summary, Why is Data Quality Critical?, Data Quality Challenges, Data Quality Tools, Data Quality Initiative. **(5+1)**

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

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# MCA Syllabus

**Faculty of Management**

**Savitribai Phule Pune University**

# Savitribai Phule Pune University (SPPU), Pune

## Curriculum for Masters of Computer Application (MCA) Programme

For year 2019-2022

**MCA (Part I) From Academic Year 2019-2020**

**MCA (Part II) From Academic Year 2020-2021**

**MCA (Part III) From Academic Year 2021-2022**

### (I) Introduction:

1. The name of the programme shall be Masters of Computer Application (M.C.A)
2. The knowledge and skills required are planning and designing to build Complex Application Software Systems that are highly valued in all industry sectors including business, health, education and arts.
3. The basic objective of the Masters programme in Computer Application (M.C.A) 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
4. The MCA Curriculum (AY 2019-22) is designed as per International Accreditation standards specified by Accreditation Board for Engineering. and Technology (ABET).  
(Ref:www.abet.org, pg. no. 10)
5. The Job Opportunities are
  - Many graduates begin their career at a junior level but are not in a position to map their job with expert technical skills obtained from a usual programme. A specialized programme would enhance their exposure to variety of roles and responsibilities which they can take in various fields of expertise. For e.g.: In the area of software development they could take up responsibilities of database, product development, product maintenance and support in addition to management activities.
  - Focused grooming would also make it easier for IT industry to decide which graduate could be mapped to the right domain.
  - Enabling entrepreneurship is also the need of the hour and students interested to be on their own could leverage from the newly designed focused programme for entrepreneurs. It will build right platform for students to become successful software professionals. This would emphasize on domain knowledge of various areas.
6. The Institutes should organize placement programme for M.C.A students by interacting with industries and software consultancy houses in and around the region in which the educational Institution is located.
7. At the end of each semester, appearing for various certifications is possible for each student enabling them to make their resume rich.
8. 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 50% of marks in the aggregate (45% 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, Maharashtra State, with **non-zero 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 30<sup>th</sup> September of the concerned academic year and also passes in the CET.

**(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 per the norms given by Government of Maharashtra, time to time.

**(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 where one session is of 1 hour, though it is up to the individual Institute to decide the time for one session while designing the time table.

## **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. The Major Project work will be in the Semester VI. It 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" back to back print (one copy) which is to be submitted to the Director of the Institute. Wherever possible, a separate file containing source-code listings should also be submitted. Every student should also submit soft copy of their project synopsis.
3. The Project Synopsis should contain an Introduction to Project, which should clearly explain the project scope in detail. Also, Data Dictionary, ERDs, File designs and a list of output reports should be included if required as per the project title and scope.
4. The project Work should be of such a nature that it could prove useful or be relevant from the commercial/management angle.
5. Selected project must have relevant scope for 400 marks.
6. For Major Project work, student must visit at least once in a week to the institute and the progress of the project must be communicated to project guide.
7. The project report will be duly accessed by the internal guide 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.
8. The project report should be prepared in a format prescribed by the University, which also specifies the contents and methods of presentation.
9. The major project work carry 150 marks for internal assessment and 250 marks for external viva. The external viva shall be conducted by a minimum of one external examiner.
10. Project work can be carried out in the Institute or outside with prior permission of the Institute.

## **(IV) 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 skills 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 reflects 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.

### **A. 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 development and a practical

orientation that he/she could imbibe without sacrificing his/her creativity. There is a definite movement away from the traditional lectures and written examination.

2. **Continuous Learning & Student Centric Concurrent Evaluation:** CBCS makes the learning process continuous. Likewise 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.
3. **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.
4. **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.
5. **Interdisciplinary Curriculum:** Cutting edge developments generally occur at the interface of two or more discipline. The 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.
6. **Employability Enhancement:** CBCS shall ensure that students enhance their skill/employability by taking up project work , entrepreneurship and vocational training
7. **Faculty Expertise:** CBCS shall give the Institutes the much needed flexibility to make best use of the available faculty expertise.

#### **B. 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.

### C. 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.

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 individual and/or combination of **three components viz. Lecture (L), Tutorials (T), Practice (Practical / Project Work) (P) i.e. LTP Pattern**.

The effort of the learner for each Credit Point may be considered to have 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 may have three components and/or combination of 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 /Practical / Project Work consisting of Hands-on experience / Field Studies / Case studies that equip students to acquire the much required *skill component*.

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.

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,*

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 MCA programme is a combination of:

- a) Four-Credit Courses (100 Marks each): 4 Credits each
- b) Two-Credit Courses (50 Marks each): 2 Credits each
- c) One-Credit Courses (25 Marks each) : 1 Credits each

#### **D. 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 MCA programme w.e.f. AY 2013-14.*

##### **D-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 semesters are often completely ignored. It also promotes 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.

##### **D-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,P & 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.

##### **D-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 stakeholders. 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 of Absolute Grading method are:

- 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 MCA programme** 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 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.**

#### **E. 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.

#### **F. Courses Offered:**

**OPEN SUBJECT**

*Institute has to offer two (or one) open subjects per semester which are attached with respective laboratory. The motive behind keeping an open subject 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 subjects. 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 subject for the given semester. In each semester total 4 credits are reserved for open subjects. Further in Semester I to V, there are 2 Open subjects of 1 credit each and practical based on open subject of 2 credits. Semester VI contains 1 open subject of 4 credits*

Some proposed open subject are (Please add more subjects)

- Machin Learning
- Data Science
- R programming
- Tableau
- AWS
- Azure
- Block Chain
- Industry 4.0
- E-Learning
- Six Sigma
- 

#### **G. Registration:**

Such registration shall be 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.

#### **G-1 Registration Process:**

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.

- i. 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.
- ii. The student should meet the criteria for prerequisites, if defined for a course, to become eligible to register for that course.
- iii. The Institute shall follow a selection procedure on a first come first served basis, determining the maximum number of students and counseling the students if required to avoid overcrowding to particular course(s) at the expense of some other courses.
- iv. It is expected that a student registers for 28 credits in Semester I, II, III, IV, V and 20 Credits in Semester VI.

#### **(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                      28 credits

Semester – II	28 credits
Semester – III	28 credits
Semester – IV	28 credits
Semester – V	28 credits
Semester – VI	20 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 course, 30% marks will be based on internal assessment and 70% marks for semester end examination (external assessment) conducted by University, unless otherwise stated.
2. The division of the 30 marks allotted to internal assessment is based on tutorials, assignments, seminars / presentations, attendance etc.
3. The marks of the practical would be given on internal practical exam, oral and lab assignments.
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.

### **(VI) 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.

#### **VI-A**

**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

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.

#### **VI-B**

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.

#### **(VII) Standard of Passing, backlog and award of class**

Please refer “CREDIT SYSTEM (CS) For SEMESTER PATTERN of Post Graduate Programs Handbook” available on university website ([http://unipune.ac.in/university\\_files/pdf/CBCS-Handbook-28-7-15new-14-5-16.pdf](http://http://unipune.ac.in/university_files/pdf/CBCS-Handbook-28-7-15new-14-5-16.pdf))

**(IX) Medium of Instruction:**

The medium of Instruction will be English.

**(X) 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.

**(XI) Revision of Syllabus:**

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

**(XII) 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 students study all-round the semester. *Therefore, there shall not be any preparatory leave before the University examinations.*

**(XII)ATKT Rules:**

A student shall earn the credits for a given course in **MAXIMUM FOUR ATTEMPTS**.

**(XIII)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.

SEMESTER I					
Sr. No.	Course Title	Course Code	CP	EXT	INT
1	Problem Solving using C++	IT11	4	70	30
2	Software Engineering using UML	IT12	4	70	30
3	Database Management System	IT13	4	70	30
4	Essentials of Operating System	IT14	4	70	30
5	Business Process Domain	BM11	4	70	30
6	Open Subject 1	OS11	1	-	25
7	Open Subject 2	OS12	1	-	25
8	Case Study on Requirement Gathering	CS11	1	-	25
<b>Practicals</b>					
9	Practical based on IT11	IT11L	2	-	50
10	Practical based on OS11 and OS12	OS1L	2	-	50
<b>Soft Skills</b>					
11	Soft Skills - I	SS11	1	-	25
			<b>28</b>	<b>350</b>	<b>350</b>

SEMESTER II					
Sr. No.	Course Title	Course Code	CP	EXT	INT
1	Data Structure and Algorithm	IT21	4	70	30
2	Web Technology	IT22	4	70	30
3	Business Statistics	MT21	4	70	30
4	Essentials of Networking	IT23	4	70	30
5	Principles and Practices of Management and Organizational Behavior	BM21	4	70	30
6	Open Subject 3	OS21	1	-	25
7	Open Subject 4	OS22	1	-	25
8	Case Study on Feasibility Study and Analysis	CS21	1	-	25
<b>Practicals</b>					
9	Practical based on IT21	IT22L	2	-	50
10	Practical based on OS21 and OS22	OS2L	2	-	50
<b>Soft Skill</b>					
11	Soft Skills - II	SS21	1	-	25
			<b>28</b>	<b>350</b>	<b>350</b>



SEMESTER III					
Sr. No.	Course Title	Course Code	CP	EXT	INT
1	Java Programming	IT31	4	70	30
2	Data Warehousing & Data Mining	IT32	4	70	30
3	Testing & Quality Assurance	IT33	4	70	30
4	Probability and Combinatorics	MT31	4	70	30
5	Cloud Computing	IT34	4	70	30
6	Open Subject 5	OS31	1	-	25
7	Open Subject 6	OS32	1	-	25
8	Case Study on Design	CS31	1	-	25
<b>* Practicals</b>					
9	Practical based on IT31	IT31L	2	-	50
10	Practical based on OS31 and OS32	OS2L	2	-	50
<b>Soft Skills</b>					
11	Soft Skills - III	SS31	1	-	25
			<b>28</b>	<b>350</b>	<b>350</b>

SEMESTER IV					
Sr. No.	Course Title	Course Code	CP	EXT	INT
1	Python Programming	IT41	4	70	30
2	Information System and Security Audit	BM41	4	70	30
3	Optimization Techniques	MT41	4	70	30
4	Essentials of Architectural framework	IT42	4	70	30
5	Knowledge Representation & Artificial Intelligence	IT43	4	70	30
6	Open Subject 7	OS41	1	-	25
7	Open Subject 8	OS42	1	-	25
8	Case Study on Development	CS41	1	-	25
<b>* Practicals</b>					
9	Practical based on IT41	IT41L	2	-	50
10	Practical based on OS41 and OS42	OS3L	2	-	50
<b>Soft Skills</b>					
11	Soft Skills - IV	SS41	1	-	25
			<b>28</b>	<b>350</b>	<b>350</b>

SEMESTER V					
Sr. No.	Course Title	Course Code	CP	EXT	INT
1	Social Media and Digital Marketing	IT51	4	70	30
2	Mobile Application Development	IT52	4	70	30
3	Software Project Management	IT53	4	70	30
4	Mini Project	ITC51	8	150	50
5	Open Subject 9	OS51	1	-	25
6	Open Subject 10	OS52	1	-	25
7	Case Study on Implementation and Testing	CS51	1	-	25
<b>* Practicals</b>					
8	Practical based on IT51	IT51L	1	-	25
9	Practical based on OS51 and OS52	OS4L	2	-	50
<b>Soft Skills</b>					
10	Soft Skills- V	SS51	2	-	50
			<b>28</b>	<b>360</b>	<b>340</b>

SEMESTER VI					
Sr. No.	Course Title	Course Code	CP	EXT	INT
1	Open Subject 11	OS61	4		100
2	Project	ITC61	16	250	150
			<b>20</b>	<b>250</b>	<b>250</b>

CP : Credit Points

Ext.: External Subject

Int.: Internal subject

#### Hardware and Software Requirements for all semesters

1	Open source IDE for C/C++ Editor/JAVA/Website designing
	Open source application server(s) : WAMP/XAMP etc.
2	Open Source Databases: Postgre SQL/MySQL/SQLite etc.
3	Open Source Accounting Packages: Tally Edu. Mode/GnuCash/LedgerSMB/TurboCASH
4	Open Source office suite : WPS Office Free/Suite Office/Open Office/ LibreOffice etc.
5	Open source Operating System : Linux (Fedora/Ubuntu) etc.
6	Microsoft Windows Operating System for [20 Machines for intake of 60 students]
7	Two Servers are mandatory [One Linux server & One Windows server] <ul style="list-style-type: none"> <li>Windows Server : Microsoft Windows Server for 20 users for intake of 60 students</li> <li>Linux Server : Fedora/Ubuntu</li> </ul>

**Note: Institutes may use any other alternate open source software.**

Hardware Requirements:		
<b>Desktop Computers :</b>	Processor: Dual Core or above	RAM: Min. 2 GB or Above
<b>Server :</b>	Processor: Xeon/equivalent AMD or above	RAM: Min 8 GB or above

## SEMESTER I

Sr. No.	Subject Code	Subject Title	Internal	External
1	IT11	Problem Solving using C++	30	70
<p><b>Course Objectives:</b></p> <ol style="list-style-type: none"> <li>1. To learn the problem-solving techniques by solving small problems.</li> <li>2. To learn features of the C++ programming language as a continuation of the previous course.</li> <li>3. To enhance problem solving and programming skills in C++ with extensive programming projects.</li> </ol> <p><b>Course Outcomes:</b></p> <p>After the completion of this course, a student will be able to</p> <ol style="list-style-type: none"> <li>1. Use the algorithm paradigms for problem solving.</li> <li>2. Develop programs with features of the C++ programming language.</li> <li>3. Develop simple applications using C++</li> <li>4. Develop programs in the UNIX/Linux programming environment.</li> </ol>				
Sr. No	Topic Details		% Weightage	No. of Sessions
1	<p><b>Introduction to Problem Solving Techniques</b></p> <p>1.1 Pseudocode                      1.2 Algorithmic paradigms- Greedy, Dynamic Programming and Divide and Conquer                      1.3 Efficiency of Algorithms                      1.4 Analysis of Algorithms</p> <p><b>Note: Simple problems to be solved using algorithms</b></p>		15	8
2	<p>Basics of C++</p> <p>2.1 A Brief History of C &amp; C++ , C Vs C++                      2.2 A Simple C++ Program , Application of C++                      2.3 Structure &amp; Class, Compiling &amp; Linking</p>		5	3
3	<p><b>C++ Expressions and Control Statements</b></p> <p>3.1 Tokens, Keywords, Identifiers &amp; Constants                      3.2 Basic Data Types, User-Defined Data Types                      3.3 Reference Variables, Operator in C++                      3.4 Scope Resolution Operator, Member Dereferencing                      3.5 Operators, Memory Management Operators                      3.6 Manipulators, Type Cast Operator                      3.7 if..else, switch..case statement while, for, break, continue, goto statements</p>		20	12

4	<b>Functions In C++</b> 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, 4.6 Friend Function	15	8
5	<b>Classes &amp; Objects</b> 5.1 A Sample C++ Program with class, Access modifiers 5.2 Defining Member Functions, Making an Outside Function Inline 5.3 Arrays within a Class 5.4 Memory Allocation for Objects 5.5 Static Data Members, Static Member 5.6 Functions, Arrays of Objects 5.7 Object as Function Arguments 5.8 Friend Functions, Returning Objects, Const member functions 5.9 Pointer to Members, Local Classes 5.10 Constructor - Parameterized Constructor, Multiple Constructor in a Class, Constructors with Default Arguments 5.11 Destructor	10	7
6	<b>Operator Overloading</b> 6.1 Defining operator Overloading 6.2 Overloading Unary Operator, Overloading Binary Operator, Overloading Binary Operator Using Friend Function. 6.3 Manipulating of String Using Operators 6.4 Rules for Overloading Operators	15	8
7	<b>Inheritance &amp; Polymorphism</b> 7.1 Defining Derived Classes 7.2 Types of Inheritance-Single, Multilevel, Hierarchical, Multiple Inheritance, Hybrid Inheritance 7.3 Virtual Base Classes, Abstract Classes 7.4 Constructor in Derived Classes 7.5 Nesting of Classes 7.6 Pointer to Derived Class 7.7 Virtual Function	10	7
8	<b>Applications</b> 8.1 Tower of Hanoi 8.2 Tic-Tac –Toe 8.3 Chess 8.4 Mouse in a maze	10	7

## Reference Book

- 1) Programming with ANSI C++ Bhushan Trivedi, Oxford University Press
- 2) Sams Teach Yourself C++ in One Hour a Day (8th Edition) - Siddhartha Rao
- 3) C++: A Beginner's Guide, Second Edition - Herbert Schildt
- 4) Accelerated C++: Practical Programming by Example - Andrew Koenig, Barbara E. Moo
- 5) Object-Oriented Programming in C++, 4th Edition - Robert Lafore

Sr. No.	Subject Code	Subject Title	Internal	External
2	IT12	Software Engineering using UML	30	70
<p><b>Course Objectives:</b></p> <ol style="list-style-type: none"> <li>To study basic concepts of software engineering</li> <li>To study phases of SDLC and different process models</li> <li>To learn &amp; understand the Requirement analysis and system Design.</li> <li>To get acquainted with the agile software development methodology</li> </ol> <p><b>Course Outcome:</b></p> <p>Student will able to</p> <p>CO1: Distinguish different process model for a software development.</p> <p>CO2: Design software requirements specification solution for a given problem definitions of a software system.</p> <p>CO3: Apply software engineering analysis/design knowledge to suggest solutions for simulated problems</p> <p>CO4: Recognize and describe current trends in software engineering</p>				
Sr. No	Topic Details		% Weightage	No. of Sessions
1	<p><b>1. Introduction to development approach SSAD and OOAD</b></p> <p>1.1. Overview of Software Development with SSAD</p> <p>1.1.1. Basic System Development Life Cycle with different users and their role in SDLC.</p> <p>1.1.2. Different Approaches and Models for System Development.</p> <p>1.1.2.1. Waterfall Model</p> <p>1.1.2.2. Spiral Model</p> <p>1.1.2.3. Prototyping Model</p> <p>1.1.2.4. RAD</p> <p>1.1.2.5. Rational Unified Process</p>		10	8
2	<p><b>2. Requirement Engineering</b></p> <p>2.1. Types of Requirements – Functional and Nonfunctional</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>Case studies should be covered on the above topic</p>		20	12
3	<p><b>3. Use-case Driven Object oriented Analysis</b></p> <p>3.1. Introduction to oops concepts</p>		40	20

	<ul style="list-style-type: none"> <li>3.1.1. Class and object</li> <li>3.1.2. Abstraction and encapsulation</li> <li>3.1.3. Method and messages</li> <li>3.1.4. Interface, Inheritance and polymorphism</li> <li>3.1.5. Structural Diagram - Class Diagram and Object diagram</li> <li>3.1.6. Associations and links</li> <li>3.1.7. Aggregation , Composition and containment</li> <li>3.1.8. Inheritance, Sub Types and IS-A hierarchy</li> </ul> <p>3.2. Behavioral Diagram</p> <ul style="list-style-type: none"> <li>3.2.1. Use case Diagram <ul style="list-style-type: none"> <li>3.2.1.1. Identify Actors</li> <li>3.2.1.2. Identify Use cases: describing how the user will use the system</li> <li>3.2.1.3. Develop use-case Model</li> <li>3.2.1.4. Description of Use case Diagram.</li> </ul> </li> <li>3.2.2. Activity Diagram</li> <li>3.2.3. Sequence diagram</li> <li>3.2.4. Collaboration Diagram.</li> <li>3.2.5. State Transition Diagram</li> </ul> <p>Case studies should be covered on the above topic</p>		
4	<p><b>4. User Interface Design</b></p> <ul style="list-style-type: none"> <li>4.1. Elements of good design</li> <li>4.2. Eight golden rules for design</li> <li>4.3. Features of modern GUI, Menus, Scroll bars, windows, buttons, icons, panels, error messages etc.</li> </ul> <p><b>Case studies should be covered on the above topic</b></p>	10	8
5	<p><b>5. Current trends in Software Engineering</b></p> <ul style="list-style-type: none"> <li>5.1. Introduction to Web Engineering</li> <li>5.2. Agile Process <ul style="list-style-type: none"> <li>5.2.1. Agile Process Models <ul style="list-style-type: none"> <li>5.2.1.1. Extreme Programming (XP)</li> <li>5.2.1.2. Adaptive Software Development (ASD)</li> <li>5.2.1.3. Dynamic Systems Development Method (DSDM)</li> <li>5.2.1.4. Scrum</li> <li>5.2.1.5. Crystal</li> <li>5.2.1.6. Feature Driven Development (FDD)</li> </ul> </li> </ul> </li> </ul>	20	12

### **Reference Books:**

1. **Software Engineering by Roger Pressman (6<sup>th</sup> 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. **UML Instant – Thomas A Pendar – Wiley Publication**
8. **UML in Nutshell ,O'reilly Pub**
9. **Agile Software Engineering with visual studio by Sam Guckenheimer, Neno Loje.**
10. **Software Requirements by Karl Wiegers**
11. **Object Oriented Modeling and Design with UML by James Rumbaugh, Michael Blaha**
12. **Object Oriented Systems and Techniques with UML & Java by Udit Agarwal**
13. **Software Engineering by Chandramouli Subramanian, Saikat Dutt**
14. **Object Oriented systems Analysis and Design using UML by Simon Bennett**
15. **UML 2 Bible by Tom Pender**
16. **The Unified Modeling Language user guide by Grady Booch, James Rumbaugh, Ivar Jacobson**



Sr. No	Subject Code	Subject Title	Internal	External
3	IT13	Database Management System	30	70
<p><b>Course Objectives</b></p> <ol style="list-style-type: none"> <li>1. Identify structure of database system using data models and ER models</li> <li>2. Demonstrate SQL , XML schema</li> <li>3. Provide database design approaches with normalization</li> <li>4. Define and discuss transaction management and concurrency control</li> </ol> <p><b>Course Outcomes</b></p> <p>CO1: Describe the basic concepts of DBMS and various databases used in real applications.  CO2: Design relational database using E-R model and normalization  CO3: Demonstrate nonprocedural structural query languages for various database applications  CO4: Apply concepts of Object Based Database, XML database and non-relational databases.  CO5: Explain transaction management and recovery management for real applications</p>				
Sr. No	Topic Details		Weightage (%)	No. of Sessions
1	<p><b>Basic concepts</b></p> <ol style="list-style-type: none"> <li>1.1 Introduction</li> <li>1.2 Database and Need for DBMS,</li> <li>1.3 Characteristics, Users, Views, schema,</li> <li>1.4 3-tier architecture,</li> <li>1.5 Introduction of Parallel, Distributed Databases, Mobile databases and Cloud databases.</li> <li>1.6 Models (Relational model, Object Models)</li> <li>1.7 Advantages and disadvantages of each model.</li> </ol>		10	8
2	<p><b>Data Modeling and Relational Database Design</b></p> <ol style="list-style-type: none"> <li>2.1 Entities-attributes,</li> <li>2.2 Relationship</li> <li>2.3 Attributes, relationship set, Keys,</li> <li>2.4 Codd's rules,</li> <li>2.5 Generalization, aggregation, ER diagrams,</li> <li>2.6 Normalization (1 NF, 2 NF, 3 NF, BCNF),</li> <li>2.7 Introduction to SQL, DDL, DML Queries.</li> </ol>		25	15
3	<p><b>Specialty databases and applications</b></p> <ol style="list-style-type: none"> <li>3.1 Obstacles using Relational Data Model &amp; Emergence of Special Databases</li> <li>3.2 Object Oriented Databases (OODBMS ) <ol style="list-style-type: none"> <li>3.2.1 Feature</li> <li>3.2.2 Advantages of OODBMS Architecture</li> <li>3.2.3 ODL,OQL</li> </ol> </li> </ol>		15	10

	3.2.4 OODBMS Vs RDBMS 3.2.4 Object Relational Database, Schema, Mapping 3.2.5 OODBMS Vs ORDBMS 3.3 XML 3.3.1 Structure of XML Data 3.3.2 XML Document Schema 3.3.3 Querying and Transformation 3.3.4 Application Program Interfaces to XML 3.3.5 Storage of XML Data 3.3.6 XML Applications		
4	<b>Transaction processing and Concurrency</b> 4.1 Concept of transaction processing, ACID properties, States of transaction 4.2 Serializability and testing for serializability 4.3 Concurrency control, schemes 4.4 Locking techniques 4.5 Timestamp based protocols 4.6 Granularity of data items 4.7 Deadlocks	25	14
5	<b>Recovery Systems and Backup</b> 5.1 Failure classifications 5.2 Recovery & Atomicity 5.3 Log base recovery 5.4 Recovery with concurrent transactions 5.5 Failure with loss of non-volatile storage 5.6 Database backup & recovery from catastrophic failure 5.7 Remote backup system	23	8
6	<b>No SQL Database</b> 6.1 Introduction, Need & Advantages 6.2 Types of No SQL Database 6.3 No SQL database vs RDBMS	2	5
<b>Reference Books:</b>			
1. Introduction to database systems C.J.Date, Pearson. 2. Database system concept Korth, TMH,5th Ed. 3. Principles of Database Management James Martin, PHI. 4. Engineering MIS for Strategic Business Processes ArpitaGopal Excel Books 5. Fundamentals of Database Systems Elmasri Navathe, Pearson,5th ed. 6. Object-oriented modeling and design Rumbaugh and Blaha, PHI. 7. Object-oriented analysis and design Grady Booch, Pearson,3rd Ed. 8. Database Management Systems Bipin Desai, Galgotia Pub. 9. Database system practical Approach to design, implementation & management Connolly & Begg, Pearson,4th Ed. 10. Database Management systems Ramakrishnan & Gehrke, McGraw-Hill,3rd Ed. 11. NoSQL Distilled: A Brief Guide to the Emerging World of Polyglot Persistence Martin Fowler			

Sr. No.	Subject Code	Subject Title	Internal	External
4	IT14	Essential of Operating System	30	70

**Course Objectives:**

1. To learn the fundamentals of Operating Systems and handle processes and threads and the 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
- To know about Basic Administration of Linux

**Course Outcome:**

After completion of this course student will be able to

CO1: Understand structure of OS, process management and synchronization.

CO2: Analyze and design Memory Management.

CO3: Interpret the mechanisms adopted for file sharing in distributed Applications

CO4: Conceptualize the components and can do Shell Programming.

CO5: Know Basic Linux System Administration and Kernel Administration.

Sr. No	Topic Details	% Weightage	No. of Sessions
1	<p><b>Overview:</b> Overview of operating systems, functionalities and characteristics of OS. Hardware concepts related to OS, CPU states, I/O channels.</p> <p><b>Process Management and Synchronization:</b> UNIX process control and management, PCB. Job and processor scheduling, scheduling algorithms, process hierarchies. Problems of concurrent processes, critical sections, mutual exclusion, synchronization, deadlock, Mutual exclusion</p>	25	18
2	<p><b>Memory Management :</b> Memory Management Techniques, Contiguous &amp; Non Contiguous allocation, Logical &amp; Physical Memory, Conversion of Logical to Physical address, Paging, Segmentation, Segment with paging, Virtual Memory Concept, Demand paging, Page Replacement algorithm, Thrashing</p>	15	10

3	<p><b>Multiprocessor Operating Systems:</b> System Architectures- Structures of OS – OS design issues – Process synchronization – Process Scheduling and Allocation-</p> <p><b>Mobile Operating Systems:</b> ARM and Intel architectures - Power Management - Mobile OS Architectures - Underlying OS - Kernel structure and native level programming - Runtime issues- Approaches to power management</p>	15	8
4	<p><b>Distributed Operating Systems:</b> System Architectures- Design issues – Communication models – clock synchronization – mutual exclusion – election algorithms- Distributed Deadlock detection Distributed scheduling - Distributed shared memory - Distributed File system – Multimedia file systems - File placement - Caching</p>	10	6
5	<p><b>Basics of Linux:</b> History, FOSS, current Linux Distributions-Distros examples, Linux Operating System Layers, The Linux Shell (different kinds of shell), Process: (parent and child processes), Files and Directories (File Structure and directory structure), Interaction with System.</p>	10	5
6	<p><b>Shells and Utilities:</b> Getting Started with Shell Programming: The bash shell, Shell commands, the role of shells in the Linux environment, other standard shells, Write a simple shell script - "Hello World!", Variables in shell:, Bash variable existence check, Customize the bash shell environments: Recalling command history, Path name expansion, Create and use aliases, The tilde expansion, Startup scripts, Commonly Used Commands and Utilities.</p>	15	8
7	<p><b>Basic Administration of Linux:</b> Basic System Administration (Run levels, User accounts), Kernel Administration: (Linux kernel sources, rebuilding kernel, installing kernel), Managing Users, Managing File Systems, Linux File Permissions, Devices and Modules (device drivers).</p>	10	7

### **Reference Books:**

1. Operating System Concepts, 9th Edition, John Wiley & Sons, Inc. by Avi Silberschatz, Peter Baer Galvin, Greg Gagne,
2. Linux Administration, A Beginner's, Guide by Wale Soyinka, Tata McGraw Hill
3. D.M Dhamdhere: Operating systems - A concept based Approach, 3rd Edition, Tata McGraw- Hill, 2012.
4. Operating Systems: Internals and Design Principles, 8th edition Pearson Education Limited, 2014 by William Stallings.
5. Modern Operating system by Andrew Tenenbaum.
6. Distributed Operating System by Andrew Tanenbaum
7. Linux Shell Scripting By Ganesh Naik
8. Linux Bible By Christopher Negus
9. P.C.P. Bhatt: Introduction to Operating Systems Concepts and Practice, 3rd Edition, PHI, 2010.
10. Harvey M Deital: Operating systems, 3rd Edition, Pearson Education, 2011

Sr. No.	Subject Code	Subject Title	Internal	External
5	BM11	Business Process Domain	30	70
<p><b>Course Objectives:</b></p> <ol style="list-style-type: none"> <li>To learn &amp; understand the processes and practices in business and their applications</li> <li>To make students understand the necessity and importance of Marketing in business Environment.</li> <li>To understand the concepts &amp; role of e-commerce in business management</li> <li>To introduce advance business applications like CRM and SCM.</li> <li>To learn the financial aspects of business management.</li> </ol> <p><b>Course Outcome:</b></p> <p>After completion of this course student will able to</p> <p>CO1: describe major bases for marketing mix in business</p> <p>CO2: describe various functionalities of human resource process</p> <p>CO3: Identify existing e-commerce model and payment system ,</p> <p>CO4: Apply knowledge to evaluate and manage an effective supply chain.</p> <p>CO5: Understand how customer relations are related to business functions and its importance to success of Business entity.</p> <p>CO6: use various banking and insurance process for business development.</p>				
Sr. No	Topic Details		% Weightage	No. of Sessions
1	<p><b>Marketing</b></p> <p>1.1 Definition &amp; importance of consumer behavior,</p> <p>1.2 Steps buyer decision process</p> <p>1.3 Market Segmentation</p> <p>1.4 Marketing mix: 7 Ps of marketing</p>		20	12
2	<p><b>Human Resource</b></p> <p>2.1 Employee Database</p> <p>2.2 Recruitment , selection Processes</p> <p>2.3 Employee Appraisal,</p> <p>2.4 Leave Types</p> <p>2.5 Payroll – Salary calculation, Income Tax calculation and reporting, PF, Gratuity, Bonus.</p>		15	12
3	<p><b>E commerce</b></p> <p>3.1 Business model of ecommerce: B2B, B2C, C2C, B2G and other models of ecommerce.</p> <p>3.2 Electronic payment system: Credit card, debit card, operational and legal risks of e-payments, risk management options for e-payment system, order fulfillment for e-commerce.</p>		15	8
4	<p><b>Supply Chain Management (SCM)</b></p> <p>4.1 what is supply chain,</p> <p>4.2 Major drivers of Supply chain,</p>		20	12

	<p>4.3 Value in Supply Chain- quality, delivery, flexibility</p> <p>4.4 Source management in Supply Chain- insourcing, outsourcing, Make Vs Buy</p> <p>4.5 Managing Inventory in Supply chain- definition of inventories, Role of Inventory, Inventory control techniques (ABC Analysis, VED Analysis), Vendor Managed Inventory</p> <p>4.6 Transportation– Modes of transportation, Transportation Management system (TMS)</p>		
5	<p><b>Customer Relationship Management (CRM)</b></p> <p>5.1 What is CRM? , Why we need CRM?</p> <p>5.2 Customer Life Cycle</p> <p>5.3 Use of CRM in Business</p> <p>5.4 CRM implementation Strategy</p> <p>5.5 CRM Applications in Hospital management, Travel industry, Hotel industry.</p>	15	8
6	<p><b>Banking and Insurance</b></p> <p>6.1 Accounts and Deposits, Types of accounts-Saving account, current account, Demat Account</p> <p>6.2 Digital Payments – NEFT, RTGS, IMPS, BHIM, UPI, Wallets</p> <p>6.3 Loans and various types of loans- Personal, home loan, vehicle loan, Loan against security, business loans.</p> <p>6.4 Loan Sanction Process</p> <p>6.5 Insurance, types of insurance- Life, Health, Accident, Home, Motor, Loan Insurance.</p> <p>6.6 Insurance processes</p>	15	8

**Reference Books:**

1. Marketing Management: A South Asian Perspective, 14th Edition (English), Philip Kotler, K. Keller, Abraham Koshy and Mithileshwar Jha
2. Supply Chain Management - Strategy, Planning & Operation by Sunil Chopra, Peter Meindl, D. V. Kalra, Pearson Education.
3. Human Resource Management by J. John Bernardin, Tata McGraw Hill Publishing, 4thEdition
4. E-Commerce concept-model-strategies, C.S.V. Murthy, Himalaya Publication House
5. Customer Relationship Management by Kristin Anderson and Carol Kerr, TMGH
6. Management of banking and Financial Services, by Padmalatha Suresh & Justin Paul, Pearson India Ltd, New Delhi

Sr. No.	Subject Code	Subject Title	Internal	External
1	IT11L	Practical based on IT11	50	---
<p><b>Steps involved in Problem Solving are:</b></p> <ol style="list-style-type: none"> <li>1. Understanding the problem</li> <li>2. Analyzing the problem</li> <li>3. Developing the solution</li> <li>4. Coding and implementation.</li> </ol> <p><b>LIST OF EXPERIMENTS</b></p> <ol style="list-style-type: none"> <li>1. Simple C++ programs to implement various control structures. <ol style="list-style-type: none"> <li>a. if statement</li> <li>b. switch case statement and do while loop</li> <li>c. for loop</li> <li>d. while loop</li> </ol> </li> <li>2. Programs to understand structure &amp; unions. <ol style="list-style-type: none"> <li>a. structure</li> <li>b. union</li> </ol> </li> <li>3. Programs to understand pointer arithmetic.</li> <li>4. Functions &amp; Recursion. <ol style="list-style-type: none"> <li>a. recursion</li> <li>b. function</li> </ol> </li> <li>5. Inline functions.</li> <li>6. Programs to understand different function call mechanism. <ol style="list-style-type: none"> <li>a. call by reference</li> <li>b. call by value</li> </ol> </li> <li>7. Programs to understand storage specifiers.</li> <li>8. Constructors &amp; destructors.</li> <li>9. Use of "this" pointer using class</li> <li>10. Programs to implement inheritance and function overriding. <ol style="list-style-type: none"> <li>a. multiple inheritance –access Specifiers</li> <li>b. hierarchical inheritance – function overriding /virtual Function</li> </ol> </li> <li>11. Programs to overload unary &amp; binary operators as member function. <ol style="list-style-type: none"> <li>a. unary operator as member function</li> <li>b. binary operator as member function</li> </ol> </li> <li>12. Programs to understand friend function &amp; friend Class. <ol style="list-style-type: none"> <li>a. friend Function</li> <li>b. friend class</li> </ol> </li> <li>13. C++ Applications viz. Tower of Hanoi, Tic-Tac –Toe, Chess, Mouse in a maze</li> </ol>				



## SEMESTER II

Sr. No.	Subject Code	Subject Title	Internal	External
1	IT21	Data Structure and Algorithm	30	70

**Course Objectives:**

1. To impart the basic concepts of data structure and algorithms
2. To understand concepts about searching and sorting techniques
3. To understand basic concepts about stacks, queues, lists, trees and graphs
4. To understanding about writing algorithms and step by step approach in solving problems with the help of fundamental data structures

**Course Outcome:**

After completion of this course student will able to

CO1: apply design principles and concepts for Data structure and algorithm

CO2: summarize searching and sorting techniques

CO3: describe stack, queue and linked list operation

CO4: demonstrate the concepts of tree and graphs

Sr. No	Topic Details	% Weightage	No. of Sessions
1	<b>Introduction to Data Structure</b> 1.1 Fundamentals of Data Structure 1.2 Operations of Data Structure 1.2.1 Traversing 1.2.2 Searching (Linear and Binary Search) 1.2.3 Sorting (Bubble, Insertion, Selection, Quick and Merge sort) 1.2.4 Inserting and Deleting 1.3 Arrays as Data Structure 1.4 Storage Representation of Arrays 1.5 Polynomial Representation of Arrays 1.5.1 Addition of Two Polynomial 1.5.2 Addition of Sparse Matrix	20	8
2	<b>Stacks</b> 2.1 Introduction and Definition 2.2 Representation of Stacks 2.3 Operations on Stacks 2.4 Applications of Stacks 2.5 Representation of Arithmetic Expressions 2.5.1 Infix 2.5.2 Postfix 2.5.3 Prefix	15	8

3	<b>Queues</b> 3.1 Introduction and Definition 3.2 Representation of Queues 3.3 Operation on Queues 3.4 Applications of Queues 3.5 Dequeue 3.6 Circular Queue 3.7 Priority Queue	15	8
4	<b>Linked List</b> 1.1 Definition of Linked List 1.2 Dynamic Memory Management 1.3 Representation of Linked List 1.4 Operations on Linked List 1.4.1 Inserting 1.4.2 Removing 1.4.3 Searching 1.4.4 Sorting 1.4.5 Merging Nodes 4.5 Double Linked List	10	10
5	<b>Trees</b> 5.1 Definition of Tree 5.2 Binary Tree and their types 5.3 Representation of Binary Tree 5.4 Operations on Binary Tree 5.5 Binary Search Tree (BST) 5.6 Traversal of Binary Tree 5.6.1 Preorder Traversal 5.6.2 In-order Traversal 5.6.3 Post-order Traversal 5.7 Threaded Binary Tree 5.8 AVL Tree 5.9 B-Tree 5.10 Operations on B-Tree	20	16
6	<b>Graphs</b> 6.1 Definition of Graph 6.2 Basic Concepts of Graph 6.3 Representation of Graph 6.2.1 Adjacency Matrix 6.2.2 Adjacency List 6.4 Single Source shortest path algorithm-Dijkstra's algorithm. 6.5 Spanning Tree 6.6 Minimum Spanning Tree	20	10

6.6.1 Kruskal's Algorithm		
6.6.2 PRIM's Algorithm		
6.7 Graph Traversal		
6.7.1 Breadth First Search (BFS)		
6.7.2 Depth First Search (DFS)		
<b>Note: Course should be taught independent of any programming language.</b>		

**References Books :**

1. Jean Paul Tremblay, Paul G. Sorensens, "AN Introduction to Data Structures with Application", McGraw Hall Publication(INDIAN edition), ISBN: 9780074624715, 0074624717
2. Lipschutz Schaum's, "Data Structure", Outline Series, TMH, ISBN-0-07-060168-2.
3. D. Samanta, "Classical Data Structure", PHI, ISBN: 8120318749.
4. Fundamental of DS using C++ by Horowitz Sahani, Galgotia pub.
5. Practical Approach to Data Structures by Hanumanthappa.
6. Tremblay, J. & Sorenson, P.G., (2001), An Introduction to Data Structures with Application, Mcgraw Hill India, ISBN: 978-0074624715, 0074624717
7. Tenenbaum," Data Structures Using C and C++", Second Edition, PHI, ISBN-81317-0328-2
8. Data Structures Using C and C++ by Langsam Y, PHI, 2nd Ed.
9. The Essence of Data Structures using C++ by Brownesy, Kan
10. Data Structure and Algorithms in C++ by Joshi Brijendra Kumar
11. Data Structures with C++: Schaums Outlines by Hubbard John

Sr. No.	Subject Code	Subject Title	Internal	External
2	IT22	Web Technology	30	70

**Course Objectives:**

1. To impart the design, development and implementation of Dynamic Web Pages.
2. To develop programs for Web using Scripting Languages.
3. To Design and implement dynamic websites with good sense of designing and latest technical aspects

**Course Outcome:**

After completion of this course student will able to

CO1: Implement interactive web page(s) using HTML, CSS and JavaScript.

CO2: Build Dynamic web site using server-side PHP Programming and Database connectivity.

CO3: Design a responsive web site.

Sr. No	Topic Details	% Weightage	No. of Sessions
1	1.1 Introduction to HTML5, What Is HTML5? Features of HTML5 Introduction to Web 2.0 and Web 3.0 1.2 History And Major Actors <ul style="list-style-type: none"> <li>● A Little Retrospective</li> <li>● What Is The W3C?</li> <li>● What Is The WHATWG?</li> </ul> 1.3 Getting Started With HTML5 <ul style="list-style-type: none"> <li>● Feature Detection</li> <li>● Support For Legacy Browsers</li> </ul> 1.4 Structure of a Web Page <ul style="list-style-type: none"> <li>● HTML5 DOCTYPE</li> <li>● Page Encoding</li> <li>● New And Updated Elements</li> <li>● New Attributes</li> <li>● Deprecated Elements And Attributes</li> </ul> 1.5 Audio and Video <ul style="list-style-type: none"> <li>● The State of Web Audio And Video Based On Plug-in</li> <li>● Attributes And Methods</li> <li>● Understanding Audio/Video Events</li> </ul> 1.6 HTML5 Canvas <ul style="list-style-type: none"> <li>● Overview Of Graphics In The Browser</li> <li>● Canvas Vs. SVG</li> <li>● Using A Canvas</li> </ul> 1.7 Forms	20	12
	1.8 Working With Paths <ul style="list-style-type: none"> <li>● Drawing Straight Lines</li> <li>● Drawing Circles Or Arcs</li> <li>● Drawing Text</li> <li>● Drawing Images</li> </ul> 1.9 Understanding Transforms <ul style="list-style-type: none"> <li>● Translation</li> </ul>		

	<ul style="list-style-type: none"> <li>● Rotation</li> <li>● Scaling</li> </ul>		
2	<p>CSS3</p> <p>2.1 Introducing CSS3</p> <ul style="list-style-type: none"> <li>● What is CSS3?</li> <li>● The History of CSS</li> </ul> <p>2.2 Selectors and Pseudo Classes</p> <ul style="list-style-type: none"> <li>● Attribute Selectors</li> <li>● The Target Pseudo-Class</li> <li>● UI Element States Pseudo-Classes</li> </ul> <p>2.3 Fonts and Text Effects</p> <ul style="list-style-type: none"> <li>● Fonts on the Web</li> <li>● Font Services</li> <li>● The @font-face Rule</li> </ul> <p>2.4 Colours, Gradients, Background Images, and Masks</p> <ul style="list-style-type: none"> <li>● Colour</li> <li>● The Opacity Property</li> <li>● Backgrounds</li> </ul> <p>2.5 Transitions, Transforms and Animations</p> <ul style="list-style-type: none"> <li>● Transitions and Transforms</li> </ul> <p>2.6 Embedding Media</p> <ul style="list-style-type: none"> <li>● Video Formats</li> <li>● Styling Video</li> </ul>	15	10
3	<p>Javascript</p> <p>3.1 Introduction to Javascript, Types of Scripts with suitable example</p> <p>3.2 Control and looping structure</p> <p>3.3 Various Operators in Javascript with Example</p> <p>3.4 Array its Types</p> <p>3.5 Event Handling with Example</p> <p>3.6 Math, Date and String objects with Example</p> <p>3.7 DOM Objects</p> <p>3.8 Form Validation</p> <p>3.9 Dynamic effect using Javascript</p>	20	12
4	<p>Jquery</p> <p>4.1 Intro to jQuery</p> <ul style="list-style-type: none"> <li>● Need of jQuery</li> <li>● Advantages of jQuery</li> <li>● JQuery versions</li> <li>● Features</li> </ul> <p>4.2 Retrieving Page Content</p> <ul style="list-style-type: none"> <li>● Using selectors</li> <li>● Using filters</li> <li>● Child, visibility, and content filters in jquery</li> </ul> <p>4.3 Manipulating Page Content</p>	25	15

	<ul style="list-style-type: none"> <li>● Creating, getting, and setting content</li> <li>● Manipulating attributes</li> <li>● Inserting content</li> <li>● Wrapping, replacing, and removing content</li> </ul> <p>4.4 Methods in jQuery 4.5 Events in JQuery 4.6 Animation in JQuery 4.7 Plugins in JQuery</p>		
5	<p>PHP</p> <p>5.1 Installing and Configuring PHP</p> <p>5.2 Introduction</p> <ul style="list-style-type: none"> <li>● PHP and the Web Server Architecture, PHP Capabilities</li> <li>● PHP and HTTP Environment Variables</li> </ul> <p>5.3 PHP Language Core</p> <ul style="list-style-type: none"> <li>● Variables</li> <li>● Constants</li> <li>● Data Types</li> <li>● Operators</li> <li>● Working with Arrays</li> </ul> <p>5.4 Decision Making , Flow Control and Loops</p> <p>5.5 Error Handling and Reporting Considerations</p> <p>5.6 Creating a Dynamic HTML Form with PHP</p> <p>5.7 Database Connectivity with MySql</p> <ul style="list-style-type: none"> <li>● Connection with MySql Database</li> <li>● Performing basic database operations(DML) Insert, Delete, Update, Select)</li> </ul> <p>5.8 Using GET, POST, SESSION, and COOKIE Variables</p>	20	12

Reference Books:

1. Javascript: the Complete Reference by Thomas Powell, Fritz Schneider
2. HTML & CSS: The Complete Reference, Fifth Edition by Powell Thomas
3. JavaScript The Complete Reference 3rd Edition (Paperback, Powell Thomas)
4. jQuery Reference Guide by Chaffer Jonathan
5. Complete Ref. PHP
6. Introducing HTML5 - Bruce Lawson, Remy Sharp
7. HTML 5 Black Book (Covers CSS3, JavaScript, XML, XHTML, AJAX, PHP, jQuery) 2Ed
8. JavaScript The Complete Reference 3rd Edition (Paperback, Powell Thomas)
9. Learning jQuery - Jonathan Chaffer, Karl Swedberg
10. HTML5 & CSS3 , Castro Elizabeth 7th Edition
11. Head First PHP & MySQL – by Lynn Beighley & Michael Morrison
12. The Joy of PHP Programming: A Beginner’s Guide – by Alan Forbes
- 13.

Sr. No	Subject Code	Subject Title	Internal	External
3	MT21	BUSINESS STATISTICS	30	70
<p><b>Course Objectives:</b></p> <ol style="list-style-type: none"> <li>To understand the importance of data-driven business decisions.</li> <li>To learn the basics of business decision-analysis.</li> <li>To summarize business data numerically and graphically.</li> <li>Learn the basics of beginning predictive business modeling</li> <li>To understand the importance of business sampling methods, and be able to describe different business sampling methods.</li> <li>To understand the process associated with statistical decisions, defining and formulating problems, analyzing the data, and using the results in decision making.</li> </ol> <p><b>Course Outcome:</b></p> <p>After completion of this course student will be able to</p> <p>CO1: Demonstrate concepts of business statistics (such as measures of central tendency, dispersion, correlation, regression analysis and time series analysis)</p> <p>CO2: Students will be able to analyze and apply statistical tools to solve problems.</p> <p>CO3: based on the acquired knowledge to interpret the meaning of the calculated statistical indicators</p> <p>CO4: Demonstrate concept of index numbers for solving practical problems in business world</p>				
Sr. No	Topic Details		% Weightage	No. of Sessions
1	<p><b>Introduction to Statistics:</b>            Introduction to Statistics, Importance of Statistics in modern business environment. Definition of Statistics, Importance, Scope and Applications of Statistics, Characteristics of Statistics, Functions of Statistics, Limitations of Statistics.            Need of Data, Types of Data, Principles of Measurement, Source of Data, Data Classification, Tabulation and Presentation.</p>		5	4
2	<p><b>Measures of Central Tendency and Dispersion:</b>            Introduction, Objectives of statistical average, Requisites of a Good Average, Statistical Averages - Arithmetic mean - Properties of arithmetic mean - Merits and demerits of arithmetic mean ,Median - Merits and demerits of median , Mode - Merits and demerits of mode , Geometric Mean , Harmonic Mean , Appropriate Situations for the Use of Various Averages , Positional Averages , Dispersion – Range - Quartile deviations, Mean deviation ,Standard Deviation -Properties of standard deviation Coefficient of Variance</p>		12.5	6
3	<p><b>Sampling, Sampling Distributions and Testing:</b>            Introduction , Population and Sample - Universe or Population - Types of Population – Sample , Advantages of Sampling, Sampling Theory - Law of Statistical Regularity - Principle of</p>		37.5	20

	<p>Inertia of Large Numbers - Principle of Persistence of Small Numbers - Principle of Validity - Principle of Optimization , Terms Used in Sampling Theory, Errors in Statistics, Measures of Statistical Errors, Types of Sampling - Probability Sampling - Non-Probability Sampling, Case let on Types of Sampling, Determination of Sample Size, Central Limit Theorem</p> <p><b>Testing of Hypothesis in Case of Large and Small Samples:</b>  Introduction – Large Samples – Assumptions , Testing Hypothesis - Null and alternate hypothesis - Interpreting the level of significance - Hypotheses are accepted and not proved , Selecting a Significance Level - Preference of type I error - Preference of type II error - Determine appropriate distribution, Two – Tailed Tests and One – Tailed Tests - Two – tailed tests - Case study on two –tailed and one-tailed tests, Classification of Test Statistics - Statistics used for testing of hypothesis - Test procedure - How to identify the right statistics for the test , Testing of Hypothesis in Case of Small Samples - Introduction – small samples, ‘t’ Distribution , Uses of ‘t’ test</p> <p><b>Chi – Square Test:</b>  Introduction , Chi-Square as a Test of Independence - Characteristics of <math>\chi^2</math> test - Degrees of freedom - Restrictions in applying <math>\chi^2</math> test - Practical applications of <math>\chi^2</math> test - Levels of significance - Steps in solving problems related to Chi-Square test - Interpretation of Chi-Square values , Chi-Square Distribution - Properties of <math>\chi^2</math> distribution - Conditions for applying the Chi-Square test - Uses of <math>\chi^2</math> test , Applications of Chi-Square test - Tests for independence of attributes - Test of goodness of fit - Test for specified variance</p>		
4	<p><b>Simple Correlation and Regression:</b>  Introduction , Correlation - Causation and Correlation - Types of Correlation - Measures of Correlation - Scatter diagram - Karl Pearson’s correlation coefficient - Properties of Karl Pearson’s correlation coefficient - Factors influencing the size of correlation coefficient , Probable Error - Conditions under which probable error can be used , Spearman’s Rank Correlation Coefficient , Partial Correlations , Multiple Correlations , Regression - Regression analysis - Regression lines - Regression coefficient , Standard Error of Estimate , Multiple Regression Analysis , Reliability of Estimates , Application of Multiple Regressions</p>	15	10
5	<p><b>Forecasting and Time Series Analysis:</b>  Introduction, Types of forecasts, Timing of forecast, Forecast methods-Quantitative and Qualitative Forecasting Methods,</p>	15	10



	<p><b>Time Series Analysis</b> -Introduction, Time Series Analysis , Utility of the Time Series , Components of Time Series - Long term trend or secular trend - Seasonal variations - Cyclic variations - Random variations, Methods of Measuring Trend - Free hand or graphic method - Semi-average method - Method of moving averages - Method of least squares, Mathematical Models for Time Series - Additive model - multiplicative model, Editing of Time Series, Measurement of Seasonal Variation - Seasonal average method - Seasonal variation through moving averages - Chain or link relative method - Ratio to trend method, Forecasting Methods Using Time Series - Mean forecast - Naive forecast - Linear trend forecast - Non-linear trend forecast - Forecasting with exponential smoothing</p>		
6	<p><b>Index Numbers:</b> Introduction, Definition of an Index Number – Relative - Classification of index numbers , Base year and current year - Chief characteristics of index numbers - Main steps in the construction of index numbers, Methods of Computation of Index Numbers – Un-weighted index numbers - Weighted index numbers, Tests for Adequacy of Index Number Formulae , Cost of Living Index Numbers of Consumer Price Index - Utility of consumer price index numbers - Assumptions of cost of living index number - Steps in construction of cost of living index numbers , Methods of Constructing Consumer Price Index - Aggregate expenditure method - Family budget method - Weight average of price relatives, Limitations of Index Numbers , Utility and Importance of Index Numbers</p>	15	10
<b>Reference Books</b>			
<ol style="list-style-type: none"> <li>1. Business Statistics, J. K. Sharma, Pearson Education-2nd Edition</li> <li>2. Business Statistics, Naval Bajpai, Pearson Education-2nd Edition</li> <li>3. The Art of Computer systems Performance Analysis, Raj Jain, Wiley India Pvt Ltd,</li> <li>4. Complete Business Statistics, Amir Aczel, Jayavel Sounderpandian, (Seventh Edition), <i>Tata McGraw-Hill</i> Education Pvt. Ltd - 2012</li> <li>5. Business Statistics Theory and Applications, by Jani P.N , PHI</li> </ol>			

Sr. No.	Subject Code	Subject Title	Internal	External
4	IT13	Essentials of Networking	30	70
<p><b>Course Objectives:</b></p> <ol style="list-style-type: none"> <li>To understand various computer networks and technologies behind networks</li> <li>To study TCP/IP suite.</li> <li>To study routing concept along with Routing protocols</li> <li>To be familiar with wireless networking concepts and protocols</li> <li>To understand cryptography</li> </ol> <p><b>Course Outcome:</b></p> <p>After completion of this course student will able to</p> <p>CO1: Understand the basic concepts of data communication including the key aspects of networking and their interrelationship</p> <p>CO2: Understand various protocols such as HTTP, SMTP, POP3, IMAP, FTP, DNS, DHCP and the basic structure of IPv4, IPv6 Address and concept of sub netting with numerical</p> <p>CO3: Understand routing concept and working of routing protocols such as RIP, OSPF and BGP</p> <p>CO4: Understand various encryption techniques</p>				
Sr. No	Topic Details		% Weightage	No. of Sessions
1	<p><b>Introduction to Data Communication and Computer Networks</b></p> <p>1.1 Overview of basic concepts and components. [Data communication characteristic, Data representation, data flow, Network Criteria, Physical structures and topologies, Network types- LAN, MAN, WAN, Internet]</p> <p>1.2 Various types of Networks (only overview)</p> <p>1.2.1 Connection Oriented N/Ws Vs Connectionless N/Ws,</p> <p>1.2.2 Ethernet</p> <p>1.2.3 Wireless LAN</p> <p>1.2.4 X.25</p> <p>1.2.5 ATM</p>		5	2
2	<p><b>Principle of Layering concept</b></p> <p>2.1 Need for layering</p> <p>2.2 ISO-OSI 7 Layer Model</p> <p>2.3 TCP/IP model</p> <p>2.4 OSI Model vs TCP/IP mode</p>		10	12

2	<b>Physical communication:</b> 2.1 Hardware Architecture 2.2 Transmission Media (Guided and unguided i.e. Twisted pair, Coaxial cable, Fiber optics, Wireless Transmission etc.) 2.3 Communication Devices (Switch, Router etc.) 2.3, Switching and its types (Circuit Switching, Message Switching, Packet Switching)	10	6
3	<b>Link Layer Communication</b> 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 <b>Note: Examples based on 3.1 to be covered</b>	20	12
4	<b>IP Addressing &amp; Routing</b> 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 4.7 TCP and UDP Connections 4.9 Overview of IPv6 <b>Notes: Examples based on IP addressing to be covered</b>	15	10
5	<b>Routing Protocol</b> 5.1 IP routing concept, 5.2 Routing tables 5.3 Routing protocols – RIP, IGRP, EIGRP, OSPF,BGP	10	4
5	<b>Domain Name System (DNS)</b> 5.1 Domain Name Space 5.2 DNS in the internet 5.3 DNS Resolution and caching 5.4 Resource Records, DNS message	10	4

<b>6</b>	<b>Network Applications</b> 6.1 Hyper Text Transfer Protocol (HTTP), HTTP communications –HTTP request, Request, Headers, Responses, Status Code, Error Status Code 6.2 Email- Sending & Receiving Email, Email, Addressing, Message Structure, SMTP – Simple Mail Transfer Protocol, POP – Post Office Protocol, IMAP- Internet Message Access Protocol, FTP- File Transfer Protocol 6.3 Overview of Network Security – Active and Passive attacks, Cryptography (Symmetric and Asymmetric) and Firewall	20	10
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Reference Books:

- |                                                               |                                |
|---------------------------------------------------------------|--------------------------------|
| 1. Computer Networks                                          | Abndrew S. Tanenbaum 4e        |
| 2. Data Communication and Networking                          | Behroz A.Forouzan, TMH, 4th Ed |
| 3. Cryptography and Network Security                          | Atul Kahate, TMH 2nd Ed.       |
| 1. Network Essential Notes                                    | GSW MCSE Study Notes           |
| 2. Internetworking Technology Handbook                        | CISCO System                   |
| 3. Computer Networks and Internets with Internet Applications | Douglas Comer                  |

Sr. No.	Subject Code	Subject Title	Internal	External
5	BM21	Principles and Practices of Management and Organizational Behavior	30	70
<p><b>Course Objectives:</b></p> <ol style="list-style-type: none"> <li>1 To understand individual behavior in organizations, including diversity, attitudes, job satisfaction, emotions, moods, personality, values, perception, decision making, and motivational theories.</li> <li>2 To understand group behavior in organizations, including communication, leadership, power and politics, conflict, and negotiations.</li> <li>3 To understand the organizational system, including organizational structures, culture, human resources, and change.</li> </ol> <p><b>Course Outcomes:</b></p> <p>After completion of the course students will be able to</p> <p><b>CO1.</b> Describe and analyze the interactions between multiple aspects of management.</p> <p><b>CO2.</b> Analyze the role of planning and decision making in Organization</p> <p><b>CO3.</b> Justify the role of leadership qualities, Motivation Group dynamics and Team Building.</p> <p><b>CO4.</b> Compare the controlling process</p>				
Sr. No.	Topic Details		% Weightage	No. of Sessions
1	<p><b>Management:</b></p> <p><b>1.1</b> Meaning and Definition</p> <p><b>1.2</b> The need, scope and process of Management</p> <p><b>1.3</b> Managerial levels/Hierarchy</p> <p><b>1.4</b> Managerial functions: Planning, Organizing, Staffing, Directing, Controlling</p> <p><b>1.5</b> Types of managers &amp; its Skill: Functional, Specialize, Generalize</p> <p><b>1.6</b> Social responsibility of management</p>		10	4
2	<p><b>Nature &amp; Development of Management Thought:</b></p> <p><b>2.1</b> Historical perspective</p> <p><b>2.2</b> Evolution of Management: Introduction to Scientific Management by Taylor, Administrative Management by Fayol, Contribution of Peter Drucker</p> <p><b>2.3</b> System approach-with reference to management, organization and MIS</p> <p><b>2.4</b> Contingency approach</p>		10	6
3	<p><b>Decision making:</b></p> <p><b>3.1</b> Introduction</p> <p><b>3.2</b> Decision making environment- Decision making under certainty, under uncertainty, under risk</p>		10	5

	<b>3.3</b> Types of Decision, decision making processes & Tools <b>3.4</b> Individual Vs Group decision making <b>3.5</b> Herbert Simon's Model & Principle of Rationality		
<b>4</b>	<b>Organization, Organizational Behaviour &amp; Organizational Culture:</b> <b>4.1</b> Definition and Need for Organization <b>4.2</b> Introduction to OB, Organizing Process <b>4.3</b> Organizational structure (Functional organization, Product Organization, Territorial Organization) <b>4.4</b> Introduction- Development and Levels of Organizational Culture <b>4.5</b> Types of Corporate Culture	10	5
<b>5</b>	<b>Motivation and Leadership:</b> <b>5.1</b> Concept of Motivation, Benefits to organization and Manager <b>5.2</b> Maslow's need Hierarchy theory <b>5.3</b> Herzberg's Motivation- Hygiene Theory <b>5.5</b> Theory X and Y, Theory Z <b>5.6</b> Definition, Nature, Qualities of Leader, Leader V/s Manager <b>5.7</b> Leadership Styles(Autocratic, Participative, Laissez faire or subordinate-centered ,Bureaucratic leadership, Transformational leadership, Transactional leadership )	15	10
<b>6</b>	<b>Group and Group Dynamics:</b> <b>6.1</b> Concept of Group, Effect & Characteristics of group, Types of groups <b>6.2</b> The Five-Stage Model of Group Development <b>6.3</b> Group Properties (Roles, Norms, Status, Size, and Cohesiveness)	10	6
<b>7</b>	<b>Team Building</b> <b>7.1</b> Concept of Team, Nature, Benefits from team, <b>7.2</b> Types of Teams <b>7.3</b> Creating Effective Teams, Turning Individuals into Team Player.	10	8
<b>8</b>	<b>Stress Management and Conflict management:</b> <b>8.1</b> Work stress: Meaning of stress, Stressors, Sources of Stress, Types of stress <b>8.2</b> Stress Management strategies <b>8.3</b> Concept of Conflict, Functional versus Dysfunctional Conflict <b>8.4</b> Five stage Conflict Process, Types of Conflict (Task Conflict, Relationship Conflict, Process Conflict, Personality Conflict, Intergroup Conflict) <b>8.5</b> Managing Conflict (Styles for Handling Dysfunctional Conflict, Third-Party Interventions)	15	12

9	<b>Personality and Understanding Individual Behavior:</b> <b>9.1</b> Introduction, Definition of Personality -Determinants of Personality <b>9.2</b> Personality Theories -Personality and Organisation <b>9.3</b> Personality Structure -Personality and Behavior <b>9.4</b> Ego State, Johari window- Transactional Analysis	10	4
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<b>Reference Books:</b>
<ol style="list-style-type: none"> <li>1. Principles and Practices of Management- Shejwalkar</li> <li>2. Essential of management- 7th edition Koontz H &amp; Weirich H TMH</li> <li>3. Management Today Principles And Practices - Burton &amp; Thakur</li> <li>4. Mgmt. Principles and Functions - Ivancevich &amp; Gibson, Donnelly</li> <li>5. Organizational behavior Keith Davis</li> <li>6. Organizational behavior Fred Luthans TMH 10th edition</li> <li>7. Organizational behavior Dr.Ashwatthapa THI 7th edition</li> <li>8. Organizational Behaviour - Fred Luthans</li> <li>9. Organizational Behaviour - Stephen Robbins</li> <li>10. Organizational Behaviour - K. Aswathappa (8th revised edition)</li> <li>11. Business psychology and Organizational Behaviour – Eugene McKenna</li> <li>12. Understanding Organizational Behaviour - Udai Pareek</li> <li>13. Organization Development – Wendell L. French and Cecil H. Bell Jr.</li> </ol>

Sr. No.	Subject Code	Subject Title	Internal	External
1	IT21L	Practical based on IT21	50	---
<p><b>Steps involved while conducting practical:</b></p> <ol style="list-style-type: none"> <li>1. Write an algorithm.</li> <li>2. Analyze algorithm based on time complexity.</li> <li>3. Coding and implementation using C++</li> <li>4. Analyze program based on time complexity.</li> </ol> <p><b>Experiment based on -</b></p> <ol style="list-style-type: none"> <li>1. Operations on Data Structure – Traversing, Searching, Sorting and insertion-deletion</li> <li>2. Application of Data Structure – Polynomial, Sparse matrix</li> <li>3. Operation on Stack, Queue and Linked List</li> <li>4. Operations on Tree traversal and B-tree</li> <li>5. Operations on Graph traversal</li> <li>6. Implementation of Dijkstra’s algorithm, Kruskal’s Algorithm and PRIM’s Algorithm</li> </ol>				