Master of Business Administration (MBA) – Project Management

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

MBA I effective from AY 2021-22
MBA II effective from AY 2022-3

1.0 The **MBA Project Management programme** is a specialized degree wherein the student shall be admitted to this programme wherein the specialization is defined right at the entry point to the programme. The student shall have choices only in the form of the elective courses.

1.1 Programme Educational Objectives (PEOs):

1. **PEO1:** Graduates of the MBA Project Management program will *successfully integrate core, cross-functional and inter-disciplinary* aspects of project 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 Project Management 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 Project Management 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 Project Management 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 Project Management 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.

1.2 Programme Outcomes (POs): At the end of the MBA (Project Management) 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 project management 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 project problems by systematically applying modern quantitative and qualitative problem solving tools and techniques.
3. **Critical Thinking** - Ability to conduct investigation of multidimensional project management 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 project and organizational goals and optimize outcomes for all stakeholders.
6. **Global Orientation and Cross-Cultural Appreciation:** Ability to approach relevant project and 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 project management 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.

3.4 Graduate Attributes (GAs): At the end of the MBA (Project Management) 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

2.1 Course Types & Evaluation Pattern:

Sr.No.	Course Type	Credits	Nature	Comprehensive Concurrent Evaluation (CCE)	End Semester Evaluation (ESE) Marks	Total Marks
1	Generic Core (GC)	3	Compulsory	50	50	100
2	Subject Core (SC)	3	Compulsory	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	50	0	50
6	Summer Internship Project (SIP)	6	Project (Compulsory)	50	50	100

Note: Massive Open Online Courses (MOOCs)[1]: Upto 40% **of the elective courses** may be offered through Massive Open Online Courses (MOOCs) 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.

[1] AICTE (Credit Framework for online learning course through SWAYAM) Regulations, 2016

2.2 Programme Structure: The Programme Structure shall be as depicted below

	Course#	Semester I		Semester II		Semester III		Semester IV		Credits	CCE Marks	ESE Marks
COMPULSORY CORE COURSES (GENERIC (GC) + SUBJECT (SC) + Summer Internship Project SIP)												
A	1	GC - 1	1	GC - 7	1	GC - 11	1	GC - 14		66 Credits	1050 2100	1050
	2	GC - 2	2	GC - 8	2	GC - 12	2	GC - 15				
	3	GC - 3	3	GC - 9	3	GC -13 (SIP)	3	SC - 5				
	4	GC - 4	4	GC - 10	4	SC - 3	4	SC - 6				
	5	GC - 5	5	SC - 1	5	SC - 4						
	6	GC- 6	6	SC - 2								
GENERIC ELECTIVE COURSES (UNIVERSITY LEVEL) – GE - UL												
B	7	GE UL - 1	7	GE UL - 4	6	GE UL – 7	5	GE UL - 10		22 Credits	0 550	550
	8	GE UL - 2	8	GE UL - 5	7	GE UL – 8	6	GE UL - 11				
	9	GE UL - 3	9	GE UL - 6	8	GE UL – 9						
GENERIC / SUBJECT ELECTIVE COURSES (INSTITUTE LEVEL) - GE – IL / SE - IL												
C	10	GE IL - 1	10	GE IL - 4	9	SE IL -3	7	SE IL -6		22 Credits	550 550	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						
	12		**12**		**11**		**8**		**43**	**110 Credits**	**1600 CCE**	**1600 ESE**

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
			TOTAL	**110**	**43**	

Note:

1. The Institute MAY NOT offer an elective course if a **minimum of 20% of students** are not registered for that elective course.

3.0 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 15th September. The Institute shall conduct an internal viva-voce for evaluation of the SIP for 50 marks between 15th September to 30th September. The Panel shall comprise of two evaluators appointed by the Director of the Institute / Head of Department (for MBA departments in engineering colleges). Institutes are encouraged to involve senior alumni, industry experts, recruiters to conduct the internal viva-voce. The internal viva-voce panel shall provide a detailed assessment of the SIP report and suggest changes required, if any.

After the internal viva-voce, the student shall finalize the SIP report by incorporating all the suggestions and recommendations of the internal viva-voce panel. The internal guide shall then issue the Institute's Certificate to the student.

The student shall submit TWO hard copies & one soft copy (CD) of the project report before 30th October in Sem III. One hard copy of the SIP report is to be returned to the student by the Institute after the External Viva-Voce. In the interest of environmental considerations, students are encouraged to print their project reports on both faces of the paper. Spiral bound copies may be accepted.

There shall be an external viva-voce for the SIP for 50 marks. The external viva-voce shall be conducted after the theory exam of Semester III.

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

1. 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.

4.0 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

4.1 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 Taxanomy
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.

4.2 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.

4.3 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.**

5.0 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	

6.0 Programme Flexibility:

6.1 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 (Project Management) 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.

6.2 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 (Project Management) programme .

6.3 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 (Project Management) programme 's PEOs and POs and are opted by the students during the period of his enrolment for the MBA (Project Management) 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.

6.4 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 (Project Management) programme 's PEOs and POs** and are opted by the students **during the period of his enrolment for the MBA (Project Management) 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.

6.5 Credit Transfer for MOOCs:

1. Learners are encouraged to opt for MOOCs (Massive Online Open Courses) through **SWAYAM, NPTEL, EdX, Coursera, Udemy**, etc.
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 40% of the total credits (44 Credits) shall be earned through the MOOCs.
4. 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.
5. 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.
6. 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.
7. Evaluation of MOOCS through SWAYAM:

7.1 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).

7.2 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.

7.3 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.

7.4 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.

7.5 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.

8. Evaluation of MOOCS through EdX, Coursera, Udemy:

8.1 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.

8.2 Alternatively, the institute may carry out a concurrent comprehensive evaluation of such students who undertake MOOCs through the EdX, Coursera, Udemy platform.

6.6 Professional Certification Programmes:

1. Learners may opt for Professional Certification Programmes offered by National, International organizations, Apex bodies, Chambers of Commerce, Professional certifying bodies, E-learning companies of repute.
2. Not more than 40% of the total credits (44 Credits) shall be earned through the Professional Certification Programmes.
3. 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.
4. 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.
5. 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.

6.7 Start-up: Launching and Sustaining' program[2]: AICTE has launched the 'Start-up: Launching and Sustaining' program to promote entrepreneurship.

Learners opting for the 'Start-up: Launching and Sustaining' program shall earn the credits for the Generic Core (GC), Subject Core (SC) & Generic Elective (GE - UL); with the minimum desired CGPA.

However, these learners shall skip the Generic Elective (GE - IL) & Subject Elective (SE - IL) courses and instead opt for the Milestone based concurrent comprehensive evaluation for 'Start-up: Launching and Sustaining' Programme as per the AICTE Policy laid down in this regard.

Such students shall have to fulfill two out of the five measurable outcomes as below:

a) **Funding:** Student Start-up should acquire at least 1-5 Lakhs INR of start-up funding as capital/convertible equity or other similar equity instruments used in start-up investments.
b) **Employment Created:** At least 5 additional jobs, (other than student founders) with a minimum of 15,000 CTC/employee/per month, paid for one full year, should be created by the student start-up.
c) **Revenues Generated:** At least 5 Lakhs INR of Cumulative revenues should be generated by the student start-up as per Audited Profit and Loss Statements.
d) **Surplus Generated:** At least 5 Lakhs INR of Cumulative surpluses should be generated by the student start-up as per Audited Profit and Loss Statements.
e) **Patent Application or Granted:** The student start-up should have applied for registration of One Indian or International Patent OR such patent should be granted to the start-up

Other modalities and guidelines as per the AICTE policy shall be adhered to.

[2] As per AICTE Policy approved by the Executive Committee in its 100th meeting held on June 28, 2016

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.

7.0 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.

7.1 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

7.2 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.

7.3 Degree Requirements: The degree requirements for the MBA (Project Management) programme are completion of minimum 110 credits.

7.6 Grade Improvement:

1. A Candidate who has secured any grade other than F (i.e. passed the MBA (Project Management) programme) and desires to avail the Grade Improvement option, may apply under Grade Improvement Scheme within five years from passing that Examination.
2. He/she can avail not more than three attempts, according to the syllabus in existence, for grade improvement.
3. He /she shall appear for University Evaluation of **at least 1/3rd** of the Generic Core / Subject Core Courses (except SIP) for the purpose of Grade Improvement.
4. Generic Elective (GE - UL), Generic Elective (GE - IL) & Subject Elective (SE - IL) cannot be selected for Grade Improvement.

8. Miscellaneous

8.1 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.

8.2 Medium of Instruction: The medium of Instruction & Evaluation shall be English.

8.3 Numbers indicated against each unit indicate L+T. These are indicative in nature. Course teachers may modify based on teaching & assessment, evaluation methods adopted.

8.4 Text Books and Reference Books refer to latest edition.

9. Detailed Course List for each category of courses is provided in Annexure I.

10. Detailed syllabus of each course is provided in Annexure II.

ANNEXURE I

GENERIC CORE (GC) COURSES – 3 Credits Each			
50 Marks CCE, 50 Marks ESE			
Course No.	**Course Code**	**Course**	**Semester**
101	GC – 01	Managerial Accounting	I
102	GC – 02	Organizational Behaviour	I
103	GC – 03	Economic Analysis for Business Decisions	I
104	GC – 04	Business Research Methods	I
105	GC – 05	Basics of Marketing	I
106	GC – 06	Digital Business	I
201	GC – 07	Marketing Management	II
202	GC – 08	Financial Management	II
203	GC – 09	Human Resources Management	II
204	GC – 10	Operations & Supply Chain Management	II
301	GC – 11	Strategic Management	III
302	GC – 12	Decision Science	III
303	GC – 13	Summer Internship Project*	III
401	GC – 14	Enterprise Performance Management	IV
402	GC – 15	Indian Ethos & Business Ethics	IV

*** Six Credits**

GENERIC ELECTIVES UNIVERSITY LEVEL (GE – UL) COURSES – 2 Credits Each			
00 Marks CCE , 50 Marks ESE			
Course #	**Course Code**	**Course**	**Semester**
Any 3 courses to be selected from the following list in Semester I			
107	GE - UL - 01	Management Fundamentals	I
108	GE - UL - 02	Indian Economy	I
109	GE - UL - 03	Entrepreneurship Development	I
110	GE - UL - 04	Essentials of Psychology for Managers	I
111	GE - UL - 05	Legal Aspects of Business	I
112	GE - UL - 06	Demand Analysis & Forecasting	I
Any 3 courses to be selected from the following list in Semester II			
207	GE - UL - 07	Contemporary Frameworks in Management	II
208	GE - UL - 08	Geopolitics & World Economic Systems	II
209	GE - UL - 09	Start Up and New Venture Management	II
210	GE - UL - 10	Qualitative Research Methods	II
211	GE - UL - 11	Business, Government & Society	II
212	GE - UL - 12	Business Process Re-engineering	II
Any 3 courses to be selected from the following list in Semester III			
306	GE - UL - 13	International Business Economics	III
307	GE - UL - 14	International Business Environment	III
308	GE - UL - 15	Project Management	III
309	GE - UL - 16	Knowledge Management	III
310	GE - UL - 17	Corporate Governance	III
311	GE - UL - 18	Management of Non-profit organizations	III
Any 2 courses to be selected from the following list in Semester IV			
405	GE - UL - 19	Global Strategic Management	IV
406	GE - UL - 20	Technology Competition and Strategy	IV
407	GE - UL - 21	Cyber Laws	IV
408	GE - UL - 22	Corporate Social Responsibility & Sustainability	IV

GENERIC ELECTIVES INSTITUTE LEVEL (GE – IL) COURSES – 2 Credits Each			
50 Marks CCE , 00 Marks ESE			
Course No.	**Course Code**	**Course**	**Semester**
Maximum 3 courses to be selected from the following list in Semester I			
113	GE - IL - 01	Verbal Communication Lab	I
114	GE - IL - 02	Enterprise Analysis & Desk Research	I
115	GE - IL - 03	Selling & Negotiation Skills Lab	I
116	GE - IL - 04	MS Excel	I
117	GE - IL - 05	Business Systems & Procedures	I
118	GE – IL- 06	Managing Innovation	I
119	GE – IL- 07	Foreign Language – I	I
Maximum 1 course to be selected from the following list in Semester II			
213	GE – IL - 08	Written Analysis and Communication Lab	II
214	GE – IL - 09	Industry Analysis & Desk Research	II
215	GE – IL - 10	Entrepreneurship Lab	II
216	GE – IL - 11	SPSS	II
217	GE – IL - 12	Foreign Language – II	II

	SUBJECT CORE (SC) COURSES:
	3 Credits Each, 100 Marks - 50 Marks CCE, 50 Marks ESE
	SEMESTER II
1	205 PRJ SC-PRJ-01 Fundamentals of Project Management
2	206 PRJ SC-PRJ-02 Tools and Techniques in Project Management
	SEMESTER III
3	304 PRJ SC-PRJ-03 Project Estimating, Cost and Risk Management
4	305 PRJ SC-PRJ-04 Project Management, Execution and Monitoring
	SEMESTER IV
5	403 PRJ SC-PRJ-05 Procurements and Contract Management in Projects
6	404 PRJ SC-PRJ-06 Governance , Continuity and Ethics in Project Management
	SUBJECT ELECTIVE (SE - IL) COURSES:
	2 Credits Each, 50 Marks CCE, 00 Marks ESE
	SEMESTER II
	Maximum 2 courses to be selected from the following list in Semester II
1	217 PRJ SE-IL-PRJ-01 Software Project Management
2	218 PRJ SE-IL-PRJ-02 Project Management in Manufacturing
3	219 PRJ SE-IL-PRJ-03 Project Performance Measurement and Evaluation
4	220 PRJ SE-IL-PRJ-04 Ideation and Project Planning
5	221 PRJ SE-IL-PRJ-05 MS Projects/Jira/ Advanced Excel
6	222 PRJ SE-IL-PRJ-06 Change Management in Project Management
7	223 PRJ SE-IL-PRJ-07 Theory of Constraints
8	224 PRJ SE-IL-PRJ-08 Design Thinking
9	225 PRJ SE-IL-PRJ-09 Business Model Canvas
10	226 PRJ SE-IL-PRJ-10 Purchasing and Contracting for Projects
	SEMESTER III
	Maximum 3 courses to be selected from the following list in Semester III
1	312 PRJ SE-IL-PRJ-11 IT, ITeS service project management
2	313 PRJ SE-IL-PRJ-12 Infrastructural Project Management
3	314 PRJ SE-IL-PRJ-13 Social Projects
4	315 PRJ SE-IL-PRJ-14 Marketing and Branding of Projects
5	319 PRJ SE-IL-PRJ-15 Digital Trends in Project Management
6	317 PRJ SE-IL-PRJ-16 Virtual Team Management
7	318 PRJ SE-IL-PRJ-17 Project Quality Management
	SEMESTER IV
	Maximum 2 courses to be selected from the following list in Semester IV
1	409 PRJ SE-IL-PRJ-18 Agile Project Management
2	410 PRJ SE-IL-PRJ-19 Analytics in Project Management
3	411 PRJ SE-IL-PRJ-20 Lean Management
4	412 PRJ SE-IL-PRJ-21 Value Engineering

5	413 PRJ SE-IL-PRJ-22 PMO- Project Management Office
6	414 PRJ SE-IL-PRJ-23 CAPM/ Agile/CCPM

ANNEXURE II – COURSE WISE DETAILED SYLLABUS

Generic Core Courses (Compulsory) – Semester I & II

Semester I		**101 – Managerial Accounting**
3 Credits	**LTP: 2:1:1**	**Compulsory Generic Core Course**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO101.1	REMEMBERING	DESCRIBE the basic concepts related to Accounting, Financial Statements, Cost Accounting, Marginal Costing, Budgetary Control and Standard Costing
CO101.2	UNDERSTANDING	EXPLAIN in detail, all the theoretical concepts taught through the syllabus.
CO101.3	APPLYING	PERFORM all the necessary calculations through the relevant numerical problems.
CO101.4	ANALYSING	ANALYSE the situation and decide the key financial as well as non-financial elements involved in the situation.
CO101.5	EVALUATING	EVALUATE the financial impact of the decision.

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 –
1. Final Accounts of Sole Proprietary Firm
2. Preparation of Cost Sheet
3. Marginal Costing and Short-Term Business Decisions
4. Raw Material Purchase & Procurement Budget, Cash Budget, Flexible Budget
5. Material Variances and Labour Variances

Suggested Text Books:
1. Management Accounting, Khan and Jain, Tata McGraw Hill
2. Fundamentals of Management Accounting, H. V.Jhamb
3. Managerial Accounting, Dr. Mahesh Abale and Dr. Shripraksh Soni
4. Management Accounting, Dr. Mahesh Kulkarni

Suggested Reference Books:

1. Financial Cost and Management Accounting, P.Periasamy
2. Financial Accounting for Management, Shankarnarayanan Ramanath, CENGAGE Learning
3. Accounting For Management, S. N. Maheshwari
4. 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 Dhmija, 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

Semester I		**102 - Organizational Behaviour**
3 Credits	**LTP: 2:1:1**	**Compulsory Generic Core Course**

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

CO#	**COGNITIVE ABILITIES**	**COURSE OUTCOMES**
CO102.1	REMEMBERING	DESCRIBE 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 inorder 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

Semester I		**103 – Economic Analysis for Business Decisions**
3 Credits	**LTP: 2:1:1**	**Compulsory Generic Core Course**

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

CO#	**COGNITIVE ABILITIES**	**COURSE OUTCOMES**
CO103.1	REMEMBERING	DEFINE the key terms 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.

Semester I		**104 - Business Research Methods**
3 Credits	**LTP: 2:1:1**	**Compulsory Generic Core Course**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES

CO104.1	REMEMBERING	DEFINE various concepts & terms associated with scientific business research.
CO104.2	UNDERSTANDING	EXPLAIN the terms and concepts used in all aspects of scientific business research.
CO104.3	APPLYING	MAKE USE OF scientific principles of research to SOLVE contemporary business research problems.
CO104.4	ANALYSING	EXAMINE the various facets of a research problem and ILLUSTRATE the relevant aspects of the research process from a data driven decision perspective.
CO104.5	EVALUATING	JUDGE the suitability of alternative research designs, sampling designs, data collection instruments and data analysis options in the context of a given real-life business research problem from a data driven decision perspective.
CO104.6	CREATING	FORMULATE alternative research designs, sampling designs, data collection instruments, testable hypotheses, data analysis strategies and research reports to address real-life business research problems.

1. Foundations of Research: Definition of Research, Need of business research, Characteristics of scientific research method, Typical Research applications in business and management**. Questions in Research**: Formulation of Research Problem – Management Question – Research Question – Investigation Question. **The process of business research**: Literature review - Concepts and theories - Research questions - Sampling - Data collection - Data analysis - Writing up - The iterative nature of business research process, Elements of a Research Proposal. **Practical considerations:** Values – researcher & organization. Ethical principles - Harm to participants, Lack of informed consent, Invasion of privacy, Deception, Reciprocity and trust, Affiliation and conflicts of interest. Legal considerations - Data management, Copyright. **(6+1)**

2. Research Design: Concept, Features of a robust research design. Exploratory, Descriptive, Quasi Experimental, Experimental research designs, Concept of Cause and Effect, Difference between Correlation and causation. Types of Variables – Independent, Dependent, concomitant, mediating, moderating, extraneous variables, Basic knowledge of Treatment & Control group, Case study design. Cross-sectional and Longitudinal designs, Qualitative and Quantitative research approaches, Pros and Cons of various designs, choice of a research design. **Hypothesis:** Definition, research Hypothesis, Statistical hypothesis, Null hypothesis, Alternative Hypothesis, Directional Hypothesis, Non-directional hypothesis. Qualities of a good Hypothesis, Framing Null Hypothesis & Alternative Hypothesis. Concept of Hypothesis Testing - Logic & Importance. **(7+1)**

3. Data & Measurement: Meaning of data, Need for data. **Secondary Data:** Definition, Sources, Characteristics, Advantages and disadvantages over primary data, Quality of secondary data - Sufficiency, adequacy, reliability and consistency. **Primary Data:** Definition, Advantages and disadvantages over secondary data. **Measurement:** Concept of measurement, What is measured? Problems in measurement in management research - Validity and Reliability, Levels of measurement - Nominal, Ordinal, Interval, Ratio. **Attitude Scaling Techniques:** Concept of Scale – Rating Scales viz. Likert Scales, Semantic Differential Scales, Constant Sum Scales, Graphic Rating Scales – Ranking Scales – Paired Comparison & Forced Ranking - Concept and Application. **Questionnaire:** Questionnaire Construction - Personal Interviews, Telephonic survey Interviewing, Online questionnaire tools. **(8+1)**

4. Sampling: Basic Concepts: Defining the Universe, Concepts of Statistical Population, Sample, Characteristics of a good sample. Sampling Frame, determining the sample frame, Sampling errors, Non Sampling errors, Methods to reduce the errors, Sample Size constraints, Non Response. **Probability Sample**: Simple Random Sample, Systematic Sample, Stratified Random Sample, Area Sampling & Cluster Sampling. **Non Probability Sample:** Judgment Sampling, Convenience Sampling, Purposive Sampling, Quota Sampling & Snowballing Sampling methods. **Determining size of the sample**: Practical considerations in sampling and sample size, (sample size determination formulae and numericals not expected) **(9+1)**

5. Data Analysis & Report Writing: Data Analysis: Cleaning of Data, Editing, Coding, Tabular representation of data, frequency tables, Univariate analysis - Interpretation of Mean, Median Mode; Standard deviation, Coefficient of Variation. **Graphical Representation of Data:** Appropriate Usage of Bar charts, Pie charts, Line charts, Histograms. **Bivariate Analysis:** Cross tabulations, Bivariate Correlation Analysis - meaning & types of correlation, Karl Person's coefficient of correlation and spearman's rank correlation. Chi-square test including testing hypothesis of association, association of attributes. **Linear Regression Analysis:** Meaning of regression, Purpose and use, Linear regression; Interpretation of regression co-efficient, Applications in business scenarios. **Test of Significance:** Small sample tests: t (Mean, proportion) and F tests, Z test. Non-parametric tests: Binomial test of proportion, Randomness test. Analysis of Variance: One way and two-way Classifications. **Research Reports:** Structure of Research report, Report writing and Presentation. **(10+1)**

Note:
1. It is desirable to use MS Excel / SPSS / Systat for delivery of unit 5.
2. For unit 5, Formulae and calculations are not expected. Interpretation of the given data/test outcomes is expected for appropriate managerial decisions / inferences.

Suggested Text Books:
1. Business Research Methods, Donald Cooper & Pamela Schindler, TMGH.
2. Business Research Methods, Alan Bryman & Emma Bell, Oxford University Press
3. Research Methods for Social Work, Allen, Earl R. Babbie, Cengage
4. Research Methods in Business Studies: A Practical Guide, Pervez Ghauri, Dr Kjell Gronhaug, FT Prentice Hall

Suggested Reference Books:
1. Business Research Methods, William G. Zikmund, Barry J. Babin, Jon C. Carr, Mitch Griffin, Cengage Learning
2. Approaches to social research, Royce Singleton, Bruce C. Straits, Margaret Miller Straits, Oxford University Press
3. Research Methods: The Basics, Nicholas S. R. Walliman, Nicholas Walliman, Routledge,
4. Research Methodology In Management, Dr.V.P.Michael

Semester I		**105 – Basics of Marketing**
3 Credits	**LTP: 2:1:1**	**Compulsory Generic Core Course**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO105.1	REMEMBERING	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

Semester I		**106 – Digital Business**
3 Credits	**LTP: 2:1:1**	**Compulsory Generic Core Course**

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

CO#	**COGNITIVE ABILITIES**	**COURSE OUTCOMES**
CO106.1	REMEMBERING	DESCRIBE the conceptual framework of e commerce, mobile commerce and social commerce.
CO106.2	UNDERSTANDING	SUMMARIZE the impact of information, mobile, social, digital, IOT and related technologies on society, markets & commerce.

CO106.3	APPLYING	ILLUSTRATE value creation & competitive advantage in a digital Business environment.
CO106.4	ANALYSING	EXAMINE the changing role of intermediaries, changing nature of supply chain and payment systems in the online and offline world.
CO106.5	EVALUATING	ELABORATE upon the various types of digital business models and OUTLINE their benefits and limitations.
CO106.6	CREATING	DISCUSS the various applications of Digital Business in the present day world.

1. **Electronic Commerce:** The Digital Revolution and Society, The Digital and Social Worlds - The Digital Economy, The Digital Enterprise, Virtual Communities, Online Communities, Defining Electronic Commerce, Emerging E-Commerce Platforms. E-Business, Electronic Markets and Networks; The Content and Framework of E-Commerce, Classification of E-Commerce by the Nature of the Transactions and the Relationships Among Participants, E-Commerce Business Models, Integrating the Marketplace with the 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.

Semester II		**201 – Marketing Management**
3 Credits	**LTP: 2:1:1**	**Compulsory Generic Core Course**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO201.1	REMEMBERING	DESCRIBE the key terms associated with the 4 Ps of marketing.
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

Semester II		**202 – Financial Management**
3 Credits	**LTP: 2:1:1**	**Compulsory Generic Core Course**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO202.1	REMEMBERING	DESCRIBE the basic concepts related to Financial Management, Various techniques of Financial Statement Analysis, Working Capital, Capital Structure, Leverages and Capital Budgeting.
CO202.2	UNDERSTANDING	EXPLAIN in detail all theoretical concepts throughout the syllabus
CO202.3	APPLYING	PERFORM all the required calculations through relevant numerical problems.
CO202.4	ANALYSING	ANALYZE the situation and • comment on financial position of the firm • estimate working capital required • decide ideal capital structure • evaluate various project proposals
CO202.5	EVALUATING	EVALUATE impact of business decisions on Financial Statements, Working Capital, Capital Structure and Capital Budgeting of the firm

1. Business Finance: Introduction to Business Finance, Meaning and Definition of Financial Management, Objectives of Financial Management- (Profit Maximization and Wealth Maximization), Modern Approach to Financial Management- (Investment Decision, Financing Decision, Dividend Policy Decision), Finance and its relation with other disciplines, Functions of Finance Manager **(3+2)**

2. Techniques of Financial Statement Analysis: Introduction, Objectives of financial statement analysis, various techniques of analysis viz Common Size Statements, Comparative Statements, Trend Analysis, Ratio Analysis, Funds Flow Statement & Cash Flow Statement **(10 + 2)**

3. Working Capital Management: Meaning of Working Capital, its components& types, Operating Cycle, Factors affecting working capital, Estimation of working capital requirement. (Total Cost Method & Cash Cost Method) **(8 + 2)**

4. **Capital Structure:** Meaning and Factors affecting Capital Structure, Different sources of finance. Concept and measurement of Cost of Capital (measurement of Specific Cost and WACC), Trading on Equity, Concept of Leverages and its types.**(6 + 2)**

5. **Capital Budgeting:** Meaning, Definition of Capital Budgeting, Time value of money.Tools of evaluation of the project based on traditional techniques and modern techniques - ARR, Payback Period, Discounted Payback Period, NPV, PI & IRR **(6+2)**

Note: Numerical Problems will be asked on following topics only—

1. Common Size Statements
2. Comparative Statements
3. Trend Analysis
4. Ratio Analysis (Calculation of ratios plus its interpretation)
5. Estimation of working capital requirement (Total Cost Method & Cash Cost Method)
6. Operating Cycle
7. Measurement of Specific Cost (Cost of Equity, Preference, Retained Earnings and Debt) and WACC
8. Capital Structure
9. Leverages
10. Capital Budgeting (ARR, Payback Period, Discounted Payback Period, NPV, PI & IRR)

Suggested Text Books:

1. Financial Management, Shashi K. Gupta and R.K. Sharma (Kalyani Publication)
2. Basics of Financial Management, V.K. Saxena and C.D.Vashist (Sultan Chand & Sons)
3. Financial Management, A Contemporary Approach, Rajesh Kothari (SAGE)
4. Financial Management, Dr. Mahesh Abale & Dr. Shriprakash Soni (Himalaya Publishing House Pvt. Ltd.)
5. Working Capital Management, Theory and Practice, Dr. P. Periasamy (Himalaya Publishing House)
6. Financial Management, I M Pandey (Vikas Publishing House Pvt. Ltd)
7. Fundamentals of Financial Management, A.P.Rao (Everest Publishing House)
8. Advanced Financial management, N.M. Vechalekar

Suggested Reference Books:

1. Financial Management, Rajiv Srivastava and Anil Misra (OXFORD University Press)
2. Financial Management, Ravi Kishore (Taxmann)
3. Financial management, V.K. Bhalla (S. Chand)
4. Financial Management, Jonathan Berk, Peter DeMarzo and Ashok Thampy (Pearson Publication)

Semester II		**203 – Human Resource Management**
3 Credits	**LTP: 2:1:1**	**Compulsory Generic Core Course**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO203.1	REMEMBERING	DESCRIBE the role of Human Resource Function in an Organization.
CO203.2	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 Compnay.
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.

Semester II		**204 – Operations & Supply Chain Management**
3 Credits	**LTP: 2:1:1**	**Compulsory Generic Core Course**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO204.1	REMEMBERING	DEFINE basic terms and concepts related to Production, Operations, Services, Supply Chain and Quality Management.
CO204.2	UNDERSTANDING	EXPLAIN the process characteristics and their linkages with process-product matrix in a real world context.

CO204.3	APPLYING	DESCRIBE the various dimensions of production planning and control and their inter-linkages with forecasting.
CO204.4	ANALYSING	CALCULATE inventory levels and order quantities and MAKE USE OF various inventory classification methods.
CO204.5	EVALUATING	OUTLINE a typical Supply Chain Model for a product / service and ILLUSTRATE the linkages with Customer Issues, Logistic and Business Issues in a real world context.
CO204.6	CREATING	ELABORATE upon different operational issues in manufacturing and services organisations where the decision-making element is emphasized.

1. Introduction to Operations and Supply Chain Management: Definition, Concept, Significance and Functions of Operations and SCM. Evolution from manufacturing to operations management, Physical distribution to Logistics to SCM, Physical Goods and Services Perspectives. **Quality:** Definitions from various Perspectives, Customers view and Manufacturer's view, Concept of Internal Customer, Overview of TQM and LEAN Management, Impact of Global Competition, Technological Change, Ethical and Environmental Issues on Operations and Supply Chain functions. **(7+2)**

2. Operations Processes: Process Characteristics in Operations: Volume Variety and Flow. Types of Processes and Operations Systems - Continuous Flow system and intermittent flow systems. **Process Product Matrix:** Job Production, Batch Production, Assembly line and Continuous Flow, Process and Product Layout. **Service System Design Matrix:** Design of Service Systems, Service Blueprinting. **(6+2)**

3. Production Planning & Control (PPC): Role and Functions of PPC **Demand Forecasting:** Forecasting as a Planning Tool, Forecasting Time Horizon, Sources of Data for forecasting, Accuracy of Forecast, Capacity Planning. **Production Planning:** Aggregate production Planning, Alternatives for Managing Demand and Supply, Master Production Schedule, Capacity Planning - Overview of MRP, CRP, DRP , MRP II. **Production Control:** Scheduling, Loading, Scheduling of Job Shops and Floor Shops, Gantt Charts. **(8+2)**

4. Inventory Planning and Control: Continuous and intermittent demand system, concept of inventory, need for inventory, types of inventory - seasonal, decoupling, and cyclic, pipeline, safety - Implications for Inventory Control Methods. Inventory Costs **-** Concept and behavior of ordering cost, carrying cost, and shortage cost. **EOQ –** definition, basic EOQ Model, EOQ with discounts. Inventory control **-** Classification of material - ABC Analysis -VED, HML, FSN, GOLF, SOS. (Numericals expected on Basic EOQ, EOQ with discounts & ABC), Inventory turns ratios, Fixed Order quantity Model - Periodic Review and Re-order Point. **(8+2)**

5. Supply Chain Management: Supply chain concept, Generalized Supply Chain Management Model - Key Issues in SCM – Collaboration, Enterprise Extension, responsiveness, Cash-to-Cash Conversion. **Customer Service:** Supply Chain Management and customer service linkages, Availability service reliability perfect order, customer satisfaction. Enablers of SCM - Facilities, Inventory, Transportation, Information, sourcing, Pricing. **(6+2)**

Suggested Text Books:

1. Operations Management Theory & Practice, B.Mahadevan , Pearson.
2. Operations Now - Supply Chain Profitability & Performance, Byron J. Finch, McGraw Hill.
3. Production and Operations Management, R B Khanna, PHI, New Delhi..
4. Production & Operations Management, S N Chary, McGraw Hill.
5. Supply Chain Management - Strategy, Planning & Operation,Sunil Chopra, Peter Meindl, D. V. Kalra, Pearson Education.

Suggested Reference Books:

1. Supply Chain Logistics Management, Donald Bowersox, David Closs, M Bixby Cooper, Tata McGraw Hill.
2. Operations Management, William J. Stevenson, TMGH.
3. Operations Management, Lee Krajewski, Larry Ritzman, Manoj Malhotra, Pearson Education.
4. Introduction to Materials Management , J.R. Tony Arnold, Stephen Chapman, Ramakrishnan, Pearson.

Generic Courses (Electives) – University Level – Semester I & II

Semester I — **107 – Management Fundamentals**

2 Credits **LTP: 2:0:0** — **Generic Elective – University Level**

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

CO#	**COGNITIVE ABILITIES**	**COURSE OUTCOMES**
CO107.1	REMEMBERING	ENUMERATE various managerial competencies and approaches to management.
CO107.2	UNDERSTANDING	EXPLAIN the role and need of Planning, Organizing, Decision Making and Controlling.
CO107.3	APPLYING	MAKE USE OF the principles of goal setting and planning for simple as well as complex tasks and small projects.
CO107.4	ANALYSING	COMPARE and CONTRAST various organizational structures of variety of business and not-for-profit entities in a real world context.
CO107.5	EVALUATING	BUILD a list of the decision making criteria used by practicing managers, leaders and entrepreneurs in routine and non-routine decision making situations and EVALUATE and EXPLAIN the same.
CO107.6	CREATING	FORMULATE and DISCUSS a basic controlling model in a real life business, start-up and not-for-profit organizational context.

1. **Basic Concepts:** Manager, Managing, Workplace, Organization, Management Functions, Mintzberg's Managerial Roles, The Universality of Management, Approaches to Management - Early Management, Classical Approach, Behavioral Approach, Quantitative Approach, Contemporary Approaches. Managerial Competencies: Communication, team work, planning and administrative, strategic and global competencies; Managerial Skills; How Is the Manager's Job Changing?, Importance of Customers to the Manager's Job, Importance of Innovation to the Manager's Job, Importance of Sustainability to the Manager's Job. **(5)**

2. **Planning:** Concept, need, nature, Management By Objectives (MBO) - Process of MBO - Benefits of MBO, Planning and Performance, Goals and Plans, Types of Goals, Types of Plans, Setting Goals and Developing Plans, Approaches to Setting Goals, Developing Plans, Approaches to Planning, Planning Effectively in Dynamic Environments. **(6)**

3. **Organizing:** Organization, Organizing, Organizational Structures, Principles of Work Specialization , Departmentalization, Chain of Command, Span of Control, Centralization and Decentralization, Formalization. Mechanistic and Organic Structures, Factors Affecting Structural Choice - Strategy, Size, Technology, Environmental Uncertainty. Traditional Organizational Designs - Simple Structure, Functional Structure, Divisional Structure, Matrix Structure, Team Structures, Project Structure, Adaptive Organizations – Boundary less Organization, Virtual Organizations, Learning Organization, Flexi Work, Tele-working, Global Organizations. **(7)**

4. **Decision Making:** The Decision-Making Process - Identifying a Problem - Identifying Decision Criteria - Allocating Weights to the Criteria - Developing Alternatives - Analyzing Alternatives - Selecting an Alternative - Implementing the Alternative - Evaluating Decision Effectiveness. Making Decisions: Rationality, Bounded Rationality, The Role of Intuition, The Role of Evidence-Based Management. Types of Decisions & Decision-Making Conditions. Decision-Making approaches - Quantitative approach, Environmental Approach, System Approach, Ethical Approach, Intuitive Approach, Case Study Approach Decision-Making Styles - Linear–Nonlinear Thinking Style Profile, Decision-Making Biases and Errors. Effective Decision Making in Today's World - Correctness of decision, Decision environment, Timing of decision, Effective communication of Decision, Participation in decision Making-Implementation of decision. **(7)**

5. **Controlling:** Controlling, Definition, need and Importance, The Control Process, Managerial Decisions in Controlling, Feed-forward / Concurrent / Feedback Controls. Financial Controls, Information Controls, Benchmarking of Best Practices. **(5)**

Suggested Text Books:

1. Fundamentals of Management by Robbins, S.P. and Decenzo, D.A., Pearson Education Asia, New Delhi.
2. Management, Koontz and Wechrich, TMGH
3. Management, Stoner, et. al., Prentice Hall of India, New Delhi.

Suggested Reference Books:

1. Management, Hellregel, Thomson Learning, Bombay
2. Management, Robbins & Coulter, Prentice Hall of Hall of India, New Delhi.
3. Management - Text & Cases, Satya Raju, PHI, New Delhi.
4. Management, Richard L. Draft, Thomson South-Western

Semester I		**108 – Indian Economy**
2 Credits	**LTP: 2:0:0**	**Generic Elective – University Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO108.1	REMEMBERING	DESCRIBE the present state of Indian Economy and LIST major economic policy issues in the current context.
CO108.2	UNDERSTANDING	EXPLAIN the economic development strategy since Independence and DISCUSS the priorities in the current context.
CO108.3	APPLYING	ILLUSTRATE the economic impact of Monetary policy and Fiscal Policy, Economic Reforms, Demographic Transition in India, Changing profile of GDP, Growth and Inequality and Trade Policy in the Indian context.
CO108.4	ANALYSING	EXAMINE the changing profile of human capital, employment, productivity and ILLUSTRATE the linkages with Soft Infrastructure, growth of Start-ups, GDP composition of India.
CO108.5	EVALUATING	DETERMINE the key priority areas, across various dimensions, for the Indian Economy in the context of current economic environment.
CO108.6	CREATING	BUILD a case for co-existence of MNCs, Indian Public Sector, Indian Private Sector, SMEs, MSMEs and Start Ups in the Indian Economy.

1. **Perspective of Indian Economy:** Indian Economy as a Developing Economy, Basic Characteristics Overview of Economic Planning, Role of Monetary policy and Fiscal Policy, Budget terminology, Economic Growth, GDP and GDP Trends, Money Supply & Inflation, Inflation trends, RBI – overview of role and functions, Capital Markets – overview of role and functions, Concept of Poverty, Estimates of Poverty, Poverty Line, Economic Reforms and Reduction of Poverty, Concept of Inclusion, Need of inclusive growth, Financial inclusion. Concept of Hard & Soft Infrastructure. Hard Infrastructure - Transport Infrastructure, Energy Infrastructure, Water management infrastructure, Communication Infrastructure, Solid waste management, Earth monitoring and measuring networks. Soft Infrastructure - Governance Infrastructure, Economic infrastructure, Social infrastructure, Critical Infrastructure, Urban infrastructure, Green infrastructure, Education Infrastructure, Health Infrastructure. **(6)**

2. **Human Resources and Economic Development :** The Theory of Demographic Transition, Size and Growth Rate of Population in India, Quantitative Population Growth Differentials in Different Countries, The Sex Composition of Population, Age Composition of Population, Density of Population, Urbanization and Economic Growth in India, The Quality of Population, Population Projections (2001-2026), Demographic Dividend. **Human Development in India -** The Concept and Measures of Human Development, Human development Index for Various States in India, National Human Development Report, Changing profile of GDP and employment in India, GDP, Employment and Productivity per Worker in India, Relative Shift in the Shares of NSDP and Employment in Agriculture, Industry and Services in Different States. **(6)**

3. **Sectoral composition of Indian Economy:** Primary, Secondary, Tertiary Sectors, Issues in Agriculture sector in India ,land reforms, Green Revolution and agriculture policies of India , Industrial development , small scale and cottage industries, Industrial Policy, Public sector in India, Services sector in India. Areas of Market Failure and Need for State Intervention, Redefining the Role of the State, Liberalization, Privatization and Globalization (LPG) Model of Development, Planning commission v/s NITI Aayog, Public Versus Private Sector Debate, Unorganised Sector and India's Informal Economy. **(6)**

4. Inequality and Economic Power in India: FDI, Angel Investors and Start-ups, Unicorns, M&A, Investment Models, Role of State, PPP (Public-Private Partnership), Savings and Investment Trends. Growth of Large Industrial Houses Since Independence, Growth of Monopolies and Concentration of Economic Power in India, Competition Policy and Competition Law, Growth and Inequality, India as an Economic Superpower, Growth of the Indian Middle Class, Indian MNCs : Mergers and Acquisitions, Outsourcing, Nationalism and Globalization, Small-scale and Cottage Enterprises, The Role of Small-scale Industries in Indian Economy, Poverty, Vulnerability and Unorganized Sector Employment-The High Degree of Correlation, Estimate of Organized and Unorganized Workers. **(6)**

5. The Foreign Trade of India: Importance of Foreign Trade for a Developing Economy, Overview of Foreign Trade Since Independence, Composition of India's Foreign Trade, Direction of India's Foreign Trade, India's Balance of Payments on Current Account, Balance of Payments Crisis, Balance of Payments Since the New Economic Reforms of 1991, India's Trade Policy, India's Foreign Trade Policy, An Analysis of Trends in Exports and Imports, Special Economic Zones (SEZs)-An Overview. **(6)**

Suggested Text Books:

1. Indian Economy , Dutt R and Sundharam K.P.M, S .Chand, Delhi
2. Indian Economy, Agarwal A. N., Vikas Publishing House, Delhi
3. Indian Economy, Misra S.K. and Pury V.K., Himalaya Publishing House, New Delhi
4. Business Environment , Bedi S K, Excel Books
5. Economic Reforms in India - A Critique, Dutt Ruddar, S. Chand, New Delhi .

Suggested Reference Books:

1. Economic Environment of Business , Adhikary, Sultan Chand and Sons
2. Business, Government and Society, George A and Steiner G A, Macmillan
3. Economic Environment of Business , Ghosh, Vikas
4. Business Environment, Francis Cherunilam, Himalaya Publishing House, Bombay
5. Industrial Economy of India, Kuchhal S.C., Chaitanya Publishing House, Allahabad

Semester I		**109 – Entrepreneurship Development**
2 Credits	**LTP: 2:0:0**	**Generic Elective – University Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO109.1	REMEMBERING	DEFINE the key terms, LIST the Attributes and Characteristics of Entrepreneurs features and ENUMERATE the Factors influencing Entrepreneurship Growth.
CO109.2	UNDERSTANDING	DISCUSS various theories of entrepreneurship and the entrepreneurship development ecosystem in Indian context.
CO109.3	APPLYING	APPLY the theories of entrepreneurship and entrepreneurship development framework to analyze and identify entrepreneurial opportunities.
CO109.4	ANALYSING	DISCRIMINATE between potential options available for entrepreneur for embarking on establishing a Start Up
CO109.5	EVALUATING	EVALUATE the start up ecosystem and the entrepreneurial opportunities in light of requirements of a business plan.
CO109.6	CREATING	CREATE a business plan that captures entrepreneurs and variety of entrepreneur motivations, entrepreneur culture and sectoral opportunities and financing options.

1. **Entrepreneurship:** Concept of Entrepreneur. Intrapreneur, Entrepreneurship and Manager. Difference between Entrepreneur and Intrapreneur, Entrepreneur and Entrepreneurship. Attributes and Characteristics of successful entrepreneurs. Functions of an Entrepreneur, Classification of Entrepreneurs. Role of Entrepreneur in Indian Economy, Developing entrepreneurial culture, Factors influencing Entrepreneurship Growth - Economic, Non-Economic Factors, For profit or Not for profit entrepreneurs, Constraints for the Growth of Entrepreneurial Culture, Entrepreneurship as a career, Entrepreneurship as a style of management, Emerging Models of Corporate Entrepreneurship, India's start up revolution–Trends, Imperatives, benefits; the players involved in the ecosystem, Business Incubators-Rural entrepreneurship, social entrepreneurship, women entrepreneurs, Cases of Tata, Birlas, Kirloskar and new generation entrepreneurs in India. **(6)**
2. **Theories of entrepreneurship:** Innovation Theory by Schumpeter & Imitating, Theory of High Achievement by McClelland, X-Efficiency Theory by Leibenstein, Theory of Profit by Knight, Theory of Social change by 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

Semester I		**110 – Essentials of Psychology for Managers**
2 Credits	**LTP: 2:0:0**	**Generic Elective – University Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO110.1	REMEMBERING	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, Cannnon 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.

Semester I | **111 - Legal Aspects of Business**
2 Credits | **LTP: 2:0:0** | **Generic Elective – University Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO111.1	REMEMBERING	DESCRIBE the key terms involved in each Act.
CO111.2	UNDERSTANDING	SUMMARIZE the key legal provisions of each Act.
CO111.3	APPLYING	ILLUSTRATE the use of the Acts in common business situations.
CO111.4	ANALYSING	OUTLINE the various facets of basic case laws of each Act from a legal and managerial perspective.
CO111.5	EVALUATING	DEVELOP critical thinking by making judgments related to use of various provisions of the Acts in business situations

1. **The Contract Act, 1872:** Essential Elements of Valid Contract, Essential elements of Valid Contracts, Contracts of Indemnity & Guarantee, Contingent Contract, Quasi Contract, Discharge of contract, Breach of contract-Meaning & remedies, Agency - Creation of Agency – Agent and Principal (Relationship/rights), 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

Semester I | **112 – Demand Analysis and Forecasting**
2 Credits | **LTP: 2:0:0** | **Generic Elective – University Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO112.1	REMEMBERING	DESCRIBE the key terms associated with demand analysis, demand estimation and demand forecasting.
CO112.2	UNDERSTANDING	SUMMARIZE the use of demand forecasting in various functions of management.

CO112.3	APPLYING	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

Semester II		**207 – Contemporary Frameworks in Management**
2 Credits	**LTP: 2:0:0**	**Generic Elective – University Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO207.1	REMEMBERING	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 succesfully 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

Semester II		**208 - Geopolitics & World Economic Systems**
2 Credits	**LTP: 2:0:0**	**Generic Elective – University Level**

Course Outcomes: At the end of this course, the learner shall be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO208.1	REMEMBERING	ENUMERATE the various elements of global economic system.
CO208.2	UNDERSTANDING	EXPLAIN the role of key trade organizations in the global economic system.
CO208.3	APPLYING	INDENTIFY 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:

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

Suggested Reference Books:

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

Semester II — **209 - Start Up and New Venture Management**

2 Credits **LTP: 2:0:0** — **Generic Elective – University Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO209.1	REMEMBERING	DESCRIBE the strategic decisions involved in establishing a startup.

CO209.2	UNDERSTANDING	EXPLAIN the decision making matrix of entrepreneur in establishing a startup.
CO209.3	APPLYING	IDENTIFY the issues in developing a team to establish and grow a startup
CO209.4	ANALYSING	FORMULATE a go to market strategy for a startup.
CO209.5	EVALUATING	DESIGN a workable funding model for a proposed startup.
CO209.6	CREATING	DEVELOP a convincing business plan description to communicate value of the new venture to customers, investors and other stakeholders.

1. **Being an Entrepreneur:** The entrepreneur, Profile analysis, behaviour and motivations, Lean Start –up, The entrepreneurial ecosystem, Entrepreneurs and strategic decisions , Sustainability of Entrepreneurship: Dilemmas of an entrepreneur for success; Handling doubts on survival of business, Struggles-Causes of failure–Product/ market, financing, managerial-Resilience. Legal Fundamentals - When, how and where to incorporate. **(5)**

2. **Customer Discovery:** Entrepreneurial Opportunity Search and Identification; Market Intelligence, Market analysis, Market research, Customer validation, developing your business model, Crafting your value proposition, Product Development , Managing the product development process, Long Tail markets, Product launch goals, Go-to-Market Strategy, The role of selling in a startup, Sales forecasting for startups, Mapping buyer response modes. Social media Promotion tools. **(7)**

3. **The Financial Road Map:** Planning/Budgeting, Developing a financial roadmap, financial statements: the four components, How to budget for startup success, Bootstrapping and alternative sources of funding, Informal capital–Friends & Family, Role of Government in ED, various schemes - PMEGP, CGTMSE, MPDA, SFURTI. Role of MSDE; Schemes by MSDE: PMKVY, SANKALP, STAR. Crowd funding, Venture capital, Private Equity, Financing Mix and the Financing continuum shareholding- Cliff -Vesting schedule-Relative importance of Operational Involvement, The Pitch, Preparing for your investor presentation, Elements of the perfect investment pitch. **(6)**

4. **Entrepreneurial Leadership:** Building and managing the founder team, Attracting and retaining the right people, The Team - Board/Governance, The role of a successful board, Different board models for different ventures, How to assemble a board of advisors, separating leadership from management, Legal Matters- Organizational form–partnership, sole proprietorship, Tax, Legal expenses, hiring the service providers. Employee management and leadership in the workforce, Recruiting, selection and hiring, Hiring the first employee. **(5)**

5. **Business Plan:** Need & Objectives, Target audience, Contents - Cover page and table of contents, Executive summary, Description of the current situation: Basic company information, products/services, management team, business organization, future goals, vision, and mission, Description of opportunity and market: Who are the buyers, who are the competitors, what are the competitive advantages of the company? Description of the business model, the marketing and sales strategy, Basic facts on the financials: Cash flow projection (life line), income statement (bottom line/profit and loss), balance sheet (business health/assets, liabilities, etc.), funding requirements, Risk analysis and possible exit strategies. Conclusion and appendixes: Résumés, literature, technical descriptions. Executive summary. Elevator pitch, Building a strong presentation, innovative methods of presenting a business plan –mind map, animated videos, etc. **(7)**

Suggested Text Books:

1. New Venture Management: The Entrepreneur's Roadmap (Entrepreneurship Series), Donald F. Kuratko and Jeffrey S. Hornsby, Pearson
2. The Manual for Indian Start-ups: Tools to Start and Scale-up Your New Venture, Vijaya Kumar Ivaturi, Meena Ganesh, Penguin Random House India.
3. Managing New Ventures, Anjan Raichoudhuri, Prentice-Hall of India Pvt.Ltd
4. Develop Your Idea!: Get Off to a Flying Start With Your Startup. Guided Exercises, Templates & Resources for Exploring New Business Ventures, K. N. Kukoyi
5. Managing Small Business by Longenecker, Moore, Petty and Palich, Cengage Learning, India Edition.
6. Entrepreneurship: New Venture Creation by David H. Holt
7. The Dynamics of Entrepreneurial Development & Management by Desai, Vasant , Himalaya Publishing House, Delhi
8. Entrepreneurship and Small Business Management by Siropolis
9. Lead like an Entrepreneur by Neal Thornberry

Suggested Reference Books:

1. Fundamentals of Entrepreneurship, Nandan H, PHI
2. Cases in Entrepreneurship by Morse and Mitchell, Sage South Asia Edition.
3. Entrepreneurship – Indian Cases on Change Agents by K Ramchandran, TMGH.
4. Entrepreneurship – The engine of growth, edited by Mark Rice and Timothy Habbershon, Published by Praeger Perspectives.
5. Entrepreneurship: Theory, Process and Practice by Kuratko, D.F. & Hodgetts, R.M. Thomson Press.
6. Entrepreneurship Development: Small Business Enterprises by Charantimath, P. , Pearson.
7. A Guide to Entrepreneurship by David, Otes , Jaico Books Publishing House, Delhi.
8. Indian Entrepreneurial Culture by A Gupta , New Age International.
9. Make The Move: Demystifying Entrepreneurship by Ishan Gupta, Rajat Khare

Semester II		**210 – Qualitative Research Methods**
2 Credits	**LTP: 2:0:0**	**Generic Elective – University Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOME
CO210.1	REMEMBERING	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, 4th Edition, SAGE
2. Research Methods in the Social Sciences, Bridget Somekh & Cathy Lewin, 5th 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

Semester II		**211 – Business, Government & Society**
2 Credits	**LTP: 2:0:0**	**Generic Elective – University Level**

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

CO#	**COGNITIVE ABILITIES**	**COURSE OUTCOME**
CO211.1	REMEMBERING	DESCRIBE the economic roles of government in the Indian context.
CO211.2	UNDERSTANDING	EXPLAIN the macroeconomic crises around the world.
CO211.3	APPLYING	ILLUSTRATE the interlinkages between economic growth , poverty and inequality.
CO211.4	ANALYSING	EXAMINE the rationale, success and failures of Public Private Partnerships in the Indian context.
CO211.5	EVALUATING	ASSESS the forces for and against Globalization and the socio-economic impact of Globalization.
CO211.6	CREATING	DISCUSS the interplay between technology, business and society.

1. Roles of Business, Government, and Society: Interdependence and Conflict, Regulation of Business, Functions of State; Economic roles of government; Government and legal environment; Economic roles of Government in India; Indian experience with overall and sectoral growth, Inter-sectoral linkages and role of foreign direct investment, The Constitutional environment , Macroeconomic crises since 1990s- Indian and global experiences.

2. Poverty, Inequality and Economic Growth: Industrial Development, Rural-Urban Dynamics, Population and Development, Finance for Development, Trade and Development, State and the Market, Privatization and Regulation, Institutions and Growth.

3. Public Private Partnerships: The Rationale for Public Private Partnerships, Different Kinds of Public Private Partnerships with a special emphasis on the Build Operate and Transfer Model (BOT), Issues in Regulation that come about with privatization, Pricing mechanisms available to a regulator to ensure universal access and efficiency, Discussion of the privatization experience in different sectors, water, electricity, telecommunication, and railways with a special emphasis on India.

4. Multinational Corporations: Perspectives on Globalization, Globalization: The MNC and TNC Organizations, Globalization of Brands, Globalization of the Indian Business and Firms, Coping with Global Competition, Conflict with Nation States. Domestic and Global forces - for and against Globalization, Brexit and latest developments.

5. Business in a Global Environment: Business as Blending of People Technology and Ethical Behaviour, Achieving Business Success through Social Responsibilities, Changing Workplace - Influence of demography, influence of technology, gender issues, social justice and affirmative action, Industrial Relations.

Suggested Text Books:

1. Business, Government and Society: A Managerial Perspective byJohn Steiner, George Steiner, Tata McGraw Hill
2. Business, Government, and Society by Douglas E. Greer, Prentice Hall
3. Business and Its Environment by David P., International Edition

Semester II **212 - Business Process Reengineering**
2 Credits **LTP: 2:0:0** **Generic Elective – University Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO212.1	REMEMBERING	DEFINE the key terms associated with Business Process Reengineering.
CO212.2	UNDERSTANDING	EXPLAIN the various supporting and opposing forces to Business Process Reengineering in simple business situations.
CO212.3	APPLYING	APPLY modeling tools for simple business processes.
CO212.4	ANALYSING	FORMULATE a working plan to establish a Business Process Reengineering team.
CO212.5	EVALUATING	EVALUATE the success of a BPR initiative in relation to the impact on organizational KPIs.
CO212.6	CREATING	IMAGINE ways to improve business or non-business processes.

1. **Introduction to Business Process Reengineering (BPR): D**efinition of business processes – Concept of BPR - Definition of business process redesign, BPR - Evolution, Definition, Need for reengineering, Benefits, Role of leader & manager, Breakthrough reengineering model, BPR guiding principles, Business process reengineering & performance improvement, Key targets of BPR, Myths about BPR , What reengineering isn't , BPR and other management concepts: TQM, Quality function deployment, ISO standards, ERP. BPR and Process Simplification, BPR and Continuous Improvement. **(6)**
2. **Business vision and process objectives:** The Key Elements of BPR, Develop a Vision, Establish a Responsible Team, Prepare the Organization for Change, Redesign the Business Process, Case Studies. Business Processes, People, Information Technology. Processes to be redesigned, selection criteria, dysfunction, importance feasibility. Measuring existing processes, BPR Goals – Cycle time reduction, Cost reduction, Quality improvement, Customer Satisfaction, BPR team characteristics. **(6)**
3. **Enablers of BPR:** Enablers of BPR in manufacturing – Agile Manufacturing, Lean Manufacturing, JIT, Collaborative Manufacturing, Intelligent Manufacturing, Production Planning, Product design & development. Relationship between BPR and information technology, Role of information technology in reengineering, Criticality of IT in business process. **(6)**
4. **BPR implementation methodology:** Different BPR Methodologies, Different Phases of BPR, Relationship between BPR phases, Tools used in Modelling the Business - flow-charting, business activity maps, relational diagrams, benefit/cost analysis, Process Modelling, Notations, Case Studies. BPR KPIs Definition, Measuring KPIs, Methodologies (Common Assessment Framework (CAF), Balanced Scorecard), Case Studies. **(6)**
5. **Change Management:** The Power of Habit in organizations, Planned changes in business re-engineering projects; Factors relating to change management systems and culture, Committed and strong leadership, Factors relating to organizational structure, Factors related to BPR program management, Factors related to IT infrastructure, Factors Relating to BPR Failure, Problems in communication and organizational resistance, Lack of organizational readiness for change, Problems related to creating a culture for change, Lack of training and education, Factors related to management support, Ineffective BPR teams, A framework for barrier management.

Suggested Text Books:

1. Hammer, M. and Champy, J, Re-engineering the Corporation: A Manifesto for Business Revolution, Harper Business
2. R. Radhakrishnan S.Balasubramanian, Business Process Reengineering, PHI
3. Vikram Sethi and William R. King, Organisational Transformation through Business Process Reengineering, Pearson
4. K. Shridhara Bhatt, Business Process Reengineering, Himalaya Publications
5. Hammer, M. and Stanton, S.A, The Re-engineering Revolution, Harper Business

Suggested Reference Books:

1. Harmon, P , Business Process Change : A Guide for Business Managers and BPM and Six Sigma Professionals, Elsevier/Morgan Kaufmann Publishers.
2. Kock, N.F., Process Improvement and Organizational Learning: The Role of Collaboration Technologies, Idea Group.
3. R. Anupindi et al., Managing Business Process Flows: Principles of Operations Management, Pearson Education Inc.
4. Walford, R.B., Business Process Implementation for IT Professionals and Managers, Artech House.
5. Henry J Johansson, H J Johansson, Mo, Business Process Reengineering, Wiley

Generic Courses (Electives) – Institute Level – Semester I & II

Semester I **113 - Verbal Communication Lab**
2 Credits **LTP: 0:3:1** **Generic Elective – Institute Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO113.1	REMEMBERING	RECOGNIZE the various elements of communication, channels of communication and barriers to effective communication.
CO113.2	UNDERSTANDING	EXPRESS themselves effectively in routine and special real world business interactions.
CO113.3	APPLYING	DEMONSTRATE appropriate use of body language.
CO113.4	ANALYSING	TAKE PART IN professional meetings, group discussions, telephonic calls, elementary interviews and public speaking activities.
CO113.5	EVALUATING	APPRAISE the pros and cons of sample recorded verbal communications in a business context.
CO113.6	CREATING	CREATE and DELIVER effective business presentations, using appropriate technology tools, for common business situations.

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

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:
1. The entire course should be delivered with a skills development focus.
2. Video recordings of student's performances (speaking tasks) should be carried out and used for intensive reviews for performance improvement.

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, Addision Wesley Longman Ltd.

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

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

CO#	**COGNITIVE ABILITIES**	**COURSE OUTCOMES**
CO114.1	REMEMBERING	DESCRIBE the key historical, organizational, market related, financial, governance, leadership and social responsibility dimensions of a real world business organization.
CO114.2	UNDERSTANDING	SUMMARIZE the regional, national and global footprint of a real world business organization.
CO114.3	APPLYING	DEMONSTRATE the use of secondary – offline and online resources to profile a real world business organization.
CO114.4	ANALYSING	ANALYSE, using tables and charts, the trends in market standing and financial performance of a real world business organization over the last 5 years.
CO114.5	EVALUATING	COMPOSE a succinct summary of future plans of a real world business organization the company website, shareholders reports and other information available in the public domain.
CO114.6	CREATING	IMAGINE the key challenges and opportunities for a real world business organization in the immediate future (1 to 3 years).

1. Enterprise History & Background: Establishment, Original & Current Promoters, Business Group or Business Family to which it belongs, Vision-Mission-Philosophy – Values-Quality Policy, Brief profiles of the Chairman, CEO, MD, Members of Board of Directors along with their career highlights CSR Initiatives, Technical and other collaborations if any, Recent Mergers and Acquisitions, if any. **(6)**

2. Organization : Organization Structure, Geographical (domestic and global) foot print – at the time of inception and spread over the years, company's current head quarter worldwide as well as head quarter / corporate office in India, Manufacturing /Service locations Indian and major worldwide, Certifications if any - ISO / EMS / FDA / CMMI , etc. Online presence. Initiatives towards gender diversity, Initiatives towards social inclusion, Initiatives towards environment conservation. Current Talent needs. Key highlights of the company's website. **(6)**

3. Markets: Major Customers, customer segments, Products, Product lines, Major Brands, Market Share – nationally, region wise, product wise, Advertising Agency, Advertising Punch Line/Slogan, Logo, Key Alliances in the past 5 years & impact. Mergers & Acquisitions, if any. Technological developments. Dirsuptive innovations affecting the organization. Labour unrest if any – reasons thereof and impact. Emerging potential competition through first generation entrepreneurs or global / local players. **(6)**

4. Financials: Data to be studied, tabulated, graphically depicted, analyzed and presented for last 5 years for the Revenues, Profitability, Market Capitalization, Segmented Revenues, Auditors. Listing status & Scrip Codes – BSE and NSE, Global Listings on International Stock Markets, Share Price Face Value, Current Market Value, Annual High Low Figures, P/E Ratio, Shareholding Pattern. **(6)**

5. Governance: Philosophy, Action taken by SEBI if any, Involvement in Scams, Insider Trading Issues, Standard & Poor's Corporate Governance Scores, CRISIL Rating. Major Awards and Achievements of the Organization in the last 5 years. Forward looking statements of the top management. **(6)**

Note:

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

Suggested Text Books:

1. No text books are prescribed.
2. The course has to be taught using the company annual reports and other publications, company website, social media feeds, business newspapers and business data bases such as ACE equity, CRISIL database, etc.

Semester I		**115 - Selling & Negotiations Skills Lab**
2 Credits	**LTP: 0:3:1**	**Generic Elective – Institute Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
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 Isenhart, 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:
1. The entire course should be delivered in the computer lab in an application oriented manner.
2. Business Applications should be stressed rather than merely teaching Excel as a software.

Suggested Text Books:
1. Excel 2016 Bible, John Walkenbach, John Wiley & Sons
2. Excel: Formulas & Functions, Robert Dinwiddie
3. Excel 2007 for Dummies by Greg Harvey
4. New Perspectives on Microsoft Office Excel 2007
5. Microsoft Excel 2016 Step by Step, Curtis Frye

Semester I **117 - Business Systems and Procedures**
2 Credits **LTP: 0:3:1** **Generic Elective – Institute Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO117.1	REMEMBERING	TABULATE the key elements of a typical business system and related work flow procedures.
CO117.2	UNDERSTANDING	EXPLAIN a business system and related procedures.
CO117.3	APPLYING	PREDICT the fail points / bottle necks in a typical business process.

CO117.4	ANALYSING	BREAK DOWN a business system into simpler components and explain the inter-relationships.
CO117.5	EVALUATING	DEVELOP a process based thinking approach.
CO117.6	CREATING	CREATE standard operating procedures and flow charts / other visual representations for typical business systems and processes.

1. **Business Systems and Procedures:** Concept and need - Characteristics of a good procedure. Writing a Standard Operating Procedure (SOP)– Procedure Identification - Information Gathering–Interviewing – Analysis – Writing – Implementation – Review- Identifying Fail Points - Fine-tuning. Process Mapping Tools – Aid Memoir – Flowchart – Swim Lane Diagrams – Flow Charting Software – Using MS Word and Excel for Flowcharting - Case Studies. Re-engineering information flow and paper flow – Process Mapping for Current and Future State Map.
2. **Systems Study:** Process Mapping, Improvement and Writing SOP's for an entire range of activities for a typical business process in a manufacturing/ service organization. Students should visit appropriate organizations to study the real life processes.
3. Detailed study of atleast **FIVE** Systems and underlying Procedures, such as: (list is illustrative only)
   a) Attendance Recording System in a manufacturing / service organization.
   b) Employee scheduling in a retail mall.
   c) Facilities management and scheduling system in automobile workshop.
   d) Inventory Management
   e) Just in Time Inventory System in a manufacturing / service organization.
   f) Kitchen Order Ticket (KOT) System in a Restaurant.
   g) KYC verification system in a mutual fund house.
   h) Loan approval system in a cooperative bank.
   i) Maintenance system in a facility.
   j) On-boarding of new employees in a manufacturing / service organization.
   k) Payroll Management
   l) Performance Appraisal system in a manufacturing / service organization.
   m) Point of sale (POS) system in an organized retail store.
   n) Purchase Order System in a manufacturing / service organization.
   o) Quality Audit system
   p) Receivables Management
   q) Stock Taking system in a library.
   r) Warehouse management system.
4. Presentation of individual/group projects

Suggested Text Book:

1. Business Process Management – A Rigorous Approach, Martyn A Ould , British Computer Society, First South Asia Edition.

Semester I		**118 - Managing Innovation**
2 Credits	**LTP: 0:3:1**	**Generic Elective – Institute Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO118.1	REMEMBERING	DESCRIBE the key ideas relevant to innovation, intellectual property, business models
CO118.2	UNDERSTANDING	INTERPRET the various theories of innovation and EXPLAIN with examples the types of innovation.
CO118.3	APPLYING	EXPERIMENT WITH innovation as a systematic process and generate innovative ideas for new products and services.

CO118.4	ANALYSING	DISSECT contemporary start-up businesses for their business models, extent of innovation, success and failure.
CO118.5	EVALUATING	CREATE an inventory of product and process innovations for daily use consumer products and routine business processes in a typical organization.
CO118.6	CREATING	CREATE a potential list of innovation needs for India in the local, regional and national context and ASSESS the likelihood of constructing a business model around these needs in the current local, regional and national context.

6. **Basics of Innovation:** Concept of Innovation. Invention and Creativity - Role and relationship with innovation, Product innovation and process innovation, Radical and incremental innovation, Technological innovation, commercial or organizational Innovation, Characteristics of innovation in different sectors , Innovation in Indian context, Innovation and Creativity, Jugad and innovation, Innovation in Current Environment- local, regional and national context. **(4)**

7. **Economics and Management of Innovation:** Schumpeter and creative destruction, The evolutionary theory of Nelson and Winter, The model of the dynamic capabilities of David Teece, Porter and competitive advantages, The value chain, Drucker and the systematic innovation, Innovations diffusion, Speed, Adoption. Innovation and Knowledge, Tacit and explicit knowledge, Knowledge as a public good. **(5)**

8. **Models of Innovation – Static Models:** Incremental versus Radical Innovation, Abernathy –Clark Model, Henderson – Clark Model, Disruptive Technological Change Model, Innovation Value – Added Chain, Strategic Leadership View, Familiarity Matrix, Imitability & Complementary Assets – Teece Model. Dynamic Models: Utterback – Abernathy Model, Tushman – Rosenkopf technology Life Cycle Model, Foster's S Curve.(7)

9. **Instruments for Innovation:** Challenges of Innovation, Innovation as a systematic practice, Steps of Innovation Management, Learning Cycle, The roles of the innovator, Functional Sources of Innovation – Internal Value Chain, Spillovers from Competitors, Suppliers, Customers and Complimentary Innovators, The generation of ideas: brainstorming, Creativity, Divergent V/s Convergent Thinking, Design Thinking, Blue Ocean Strategy. Experimentation in Innovation Management, Technology Innovation Process, Idea Championship, Participation for Innovation, Co-creation for Innovation, Screening the innovative ideas, Proto typing to Incubation. **(7)**

10. **Management and Marketing of Innovation:** Innovation Management Planning, Technology Forecasting, Innovation Sustainable Conditions, Management of Innovation, Concept of IPR. Creation of IPR, Types of IPR, Patents and Copyrights, Patents in India. **Business Models:** What is a Business Model? The evolution of the business model, The Business Model Canvas, Business Models and value proposition, Business Model Failure: Reasons and Remedies, Incubators: Business Vs Technology, Future markets and Innovation needs for India. **(7)**

Suggested Text Books:

1. Innovation Management, Allan Afuah, Oxford Indian Edition.
2. Innovation Management, Shlomo Maital and D V R Seshadri, Response Books, Sage Publications, New Delhi.
3. Innovation: the attacker's advantage, Foster, Richard N., London, Macmillan.
4. Adair on Creativity and Innovation, Edited by Neil Thomas, Viva Books
5. Innovating at the Edge – How organizations Evolve and Embed Innovation Capability, Tim Jones, Butterworth-Hienemann, South Asian Edition.
6. Managing Creativity & innovation, Harvard Business Essentials, Harvard Business School Press

Suggested Reference Books:

1. The Innovator's ToolKit , Harvard Business Press.
2. Fastrack to Success Innovation , Andy Bruce and David Birchall, Prentice Hall - Financial Times.
3. Getting to Innovation, Arthur B VanGundy, PHI – Eastern Economy Edition
4. Blue Ocean Strategy, Kim & Mauborgne

Semester I **119 - Foreign Language I**
2 Credits **LTP: 0:3:1** **Generic Elective – Institute Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO119.1	REMEMBERING	RECALL and SPELL simple words in the foreign language
CO119.2	UNDERSTANDING	TRANSLATE simple sentences from English to the foreign language and vice-versa.
CO119.3	APPLYING	CONSTRUCT a dialogue, in the foreign language, for basic human interactions in a social context.
CO119.4	ANALYSING	TAKE PART IN an interaction in a non-business setting using the foreign language.
CO119.5	EVALUATING	INTERPRET a short write up written in the foreign language.

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.

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

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO213.1	REMEMBERING	DESCRIBE stages in a typical communication cycle and the barriers to effective communication.
CO213.2	UNDERSTANDING	SUMMARIZE long essays and reports into précis and executive summaries.

CO213.3	APPLYING	USE Dictionary and Thesaurus to draft and edit a variety of business written communication.
CO213.4	ANALYSING	EXAMINE sample internal communications in a business environment for potential refinements.
CO213.5	EVALUATING	COMPOSE variety of letters, notices, memos and circulars.

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, Addision Wesley Longman Ltd.

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

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO214.1	REMEMBERING	DESCRIBE the key characteristics of the players in an industry.
CO214.2	UNDERSTANDING	SUMMARIZE the management ethos and philosophy of the players in the industry.
CO214.3	APPLYING	DEMONSTRATE an understanding of the regulatory forces acting on the industry.
CO214.4	ANALYSING	COMPARE and CONTRAST, using tables and charts, the market and financial performance of the players in an industry.
CO214.5	EVALUATING	ASSESS the impact of recent developments on the industry and its key players.
CO214.6	CREATING	PREDICT the future trajectory of the evolution of the industry in the immediate future (1 to 3 years).

1. **Industry Analysis – the Basics:** Nature of the Industry, Players in the industry, Nature of competition, Market shares of top 5 & bottom 5 players, Possible Classification of players into Leaders, Challengers, Followers, Nichers, Positioning & Differentiation strategies of key players. Branding strategies, Pricing Policies, Cartelization if any and comments thereon, Capacity analysis – total capacity of the industry and break up capacity amongst key players, Current Capacity Utilization rates, Planned future capacity additions, Geographical spread of plants/facilities/ capacities (Domestics as well as Global), Demand Supply balance in the industry – at global, national and regional level, Key factors affecting demand, Key supply side constraints, Professional Trade bodies of the Industry, Business Functions carried out Online by the key players. Online presence of the players, Incremental Innovations in the industry, Disruptive Innovations in the industry. **(5)**
2. **Promoters & Management Ethos:** Background of promoter groups of top 5 and bottom 5 players in the industry, Management ethos and philosophy, Brief profiles of CMDs, CEOs, and key top management personnel with their career highlights, Detailed profile of one distinguished top management personnel each from any two players in the Industry, CSR policy, Corporate Governance Initiatives, Initiatives towards social inclusion, Initiatives towards environment conservation. **(5)**
3. **External Environment:** Controlling ministry and / or regulator if any for the Industry, Regulatory Policies at the state, national and global level and their impact on the industry as a whole with analysis of impact on top 5 players and bottom 5 players, Key National and Global issues affecting the industry, Key initiatives by the Government to promote the industry, Environmental issues, CSR initiatives, Regulatory actions against the players for e.g. Action by SEBI, Competition Commission of India, MTRP Commission, FDA, etc. against irregularities , legal violations if any. **(5)**
4. **Financials:** Profitability, Revenues, Margins of top 5 & bottom 5 players over the last 5 years and trends/changes therein, Sick players if any and their turnaround strategies, if any, Key factors contributing to costs, Ratio analysis of financial data for last 5 years for top 5 and bottom 5 companies in the industry. **(5)**
5. **Recent Developments:** Impact of key relevant provisions of the latest Fiscal policy on the industry and various players therein, Analysis of Key relevant provisions of latest Exim Policy in case of industries that are focused on Global Markets for exports or industries that have significant import components, Key Alliances in the past 5 years and their performance & impact on other players in the industry, Mergers & Acquisitions, if any. Technological developments, Labour unrest if any – reasons thereof and impact on the particular player and the industry as a whole, emerging first generation entrepreneurs, if any, in the industry, Corporate wars & feuds in the industry, if any. **(5)**

Note:

1. Students should work in groups of 3 to 5 each under the guidance of a faculty.
2. Students shall carry out an indepth study of any TWO industries of their choice.

3. Industries selected should be distinct from each other.
4. Students shall submit a structured detailed report.

Suggested Text Books:
1. No text books are prescribed.
2. The course has to be taught using the company annual reports and other publications, company website, social media feeds, business newspapers and business data bases such as ACE equity, CRISIL database, etc.

Semester II		**215 – Entrepreneurship Lab**
2 Credits	**LTP: 0:3:1**	**Generic Elective – Institute Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO215.1	REMEMBERING	IDENTIFY a basket of potential business opportunities in the local, regional or national context.
CO215.2	UNDERSTANDING	COMPARE and CONTRAST the shortlisted business opportunities to SELECT the most suitable / promising opportunity.
CO215.3	APPLYING	DEVELOP a business model around the shortlisted business opportunity.
CO215.4	ANALYSING	FORMULATE the organization structure for the proposed start up
CO215.5	EVALUATING	EVALUATE the market potential and ESTIMATE the financing requirements for the initial 1 to 3 years after launch.
CO215.6	CREATING	CREATE a proposal for funding the start up.

This course provides a hands-on experience to the students to convert and apply theoretical and conceptual knowledge about entrepreneurship into practical entrepreneurship. During the course, students shall identify and evaluate a new business opportunity (which may be supplied by an entrepreneur or innovator in the nearby region.)

Students shall work in a group, of not more than 5 students, on a real-life business case.

Scope of the work expected:
1. Business Model Designing
2. Business Plan Designing
3. Financial Planning
4. Prototype Making
5. Test Marketing
6. Planning Commercial Launch.

Suggested Text Books:
1. New Venture Management: The Entrepreneur's Roadmap (Entrepreneurship Series), Donald F. Kuratko and Jeffrey S. Hornsby, Pearson
2. The Manual for Indian Start-ups: Tools to Start and Scale-up Your New Venture, Vijaya Kumar Ivaturi, Meena Ganesh, Penguin Random House India.
3. Managing New Ventures, Anjan Raichoudhuri, Prentice-Hall of India Pvt.Ltd
4. Develop Your Idea!: Get Off to a Flying Start With Your Startup. Guided Exercises, Templates & Resources for Exploring New Business Ventures, K. N. Kukoyi
5. Managing Small Business by Longenecker, Moore, Petty and Palich, Cengage Learning, India Edition.
6. Entrepreneurship: New Venture Creation by David H. Holt
7. The Dynamics of Entrepreneurial Development & Management by Desai, Vasant , Himalaya Publishing House, Delhi
8. Entrepreneurship and Small Business Management by Siropolis

9. Lead like an Entrepreneur by Neal Thornberry

Suggested Reference Books:

1. Fundamentals of Entrepreneurship, Nandan H, PHI
2. Cases in Entrepreneurship by Morse and Mitchell, Sage South Asia Edition.
3. Entrepreneurship – Indian Cases on Change Agents by K Ramchandran, TMGH.
4. Entrepreneurship – The engine of growth, edited by Mark Rice and Timothy Habbershon, Published by Praeger Perspectives.
5. Entrepreneurship: Theory, Process and Practice by Kuratko, D.F. & Hodgetts, R.M. Thomson Press.
6. Entrepreneurship Development: Small Business Enterprises by Charantimath, P. , Pearson.
7. A Guide to Entrepreneurship by David, Otes , Jaico Books Publishing House, Delhi.
8. Indian Entrepreneurial Culture by A Gupta , New Age International.
9. Make The Move: Demystifying Entrepreneurship by Ishan Gupta, Rajat Khare

Semester II **216 - SPSS**

2 Credits **LTP: 0:3:1** **Generic Elective – Institute Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO216.1	REMEMBERING	IDENTIFY the key menus of SPSS and DESCRIBE their functionality.
CO216.2	UNDERSTANDING	EXPLAIN the main features of SPSS
CO216.3	APPLYING	MAKE USE OF various tools to manage date, describe data and display graphical output using SPSS.
CO216.4	ANALYSING	ANALYSE data using various statistical tests of SPSS
CO216.5	EVALUATING	INTERPRET and EXPLAIN the outputs from SPSS
CO216.6	CREATE	DESIGN, DEVELOP and TEST advanced multivariate models using SPSS.

1. **Overview**: SPSS Environment, Introduction to various menus, Data file, Output file, Frequently –used dialog boxes, Editing output, Printing results. Creating and editing a data file – Variable and data view, Value Labels.
2. **Managing Data:** Listing cases, replacing missing values, computing new variables, recording variables, exploring data, selecting cases, sorting cases, merging files, splitting files, Visual Binning. **Frequencies:** Frequencies, bar charts, histograms, percentiles. **Descriptive Statistics:** Measures of central tendency, variability, deviation from normality, size and stability. Cross Tabulation and chi-square analyses, The means Procedure. **Graphs:** Creating and editing graphs and charts
3. **Bivariate Correlation:** Bivariate Correlation, Partial Correlations and the correlation matrix. **The T-test Procedure:** Independent –samples, paired samples, and one sample tests. **Non Parametric Tests:** ChiSquareTest, 1 sample test, 2 independent samples test, k independent samples, 2 related samples test, k related samples.
4. **One Way ANOVA Procedure:** One way analysis of variance, General Linear model: Two –way analysis of variance, General Linear model: three –way analysis of variance and the influence of covariates
5. **Advanced Tools:** Simple Linear Regression , Multiple regression analysis. Multidimensional scaling, Reliability Analysis, Factor analysis, Cluster analysis.

Suggested Text Books:

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

Semester II **217 - Foreign Language II**

2 Credits **LTP: 0:3:1** **Generic Elective – Institute Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO217.1	REMEMBERING	LISTEN to simple audio-visual recordings in the foreign language.
CO217.2	UNDERSTANDING	TRANSLATE simple letters from English to the foreign language and vice-versa.
CO217.3	APPLYING	CONSTRUCT a business email, in the foreign language.
CO217.4	ANALYSING	TAKE PART IN an interaction in a business setting using the foreign language.
CO217.5	EVALUATING	COMPOSE a covering letter and resume in the foreign language.

1. **Listening:** Understand Simple Questions and Instructions. **Reading:** Understand Single Words and Sentences but also Signposts, Signs and Posters. **Speaking:** Provide Short Information about the Job and the Person. **Writing:** Fill in Forms and Provide Information About Name, Address, Nationality etc. **(6)**

2. **Listening:** Understand Information about the Person and the Work. **Reading**: Understand Simple Letters, Appointments, Invitations and Information in Short Texts. **Speaking:** Answer Simple Questions About One's Working Field. **Writing:** Write Faxes and e-mails. **(6)**

3. **Listening:** Understand Standard Information Related to the Working Field. **Reading:** Understand Standard Letters and Texts about Working Processes and Product Descriptions. **Speaking:** Provide Information about the Job, the Departments, the Company, the Products and Processes in a Conversation or on the Phone. **Writing:** Answer Standard Inquiries, Make Quotations, Write Short Texts with a Familiar Content, Possibly Give Some Explanation and Answer Simple Questions. **(6)**

4. **Listening:** Understand Complex Information Related to the Working Field in Meetings, Discussions and at Presentations. **Reading:** Understand Reports and Contracts with a Company-related Content. **Speaking:** Describe and Explain Work Processes and Projects. Report on Meetings and Presentations. Explain Concepts and Clarify Misunderstandings. **Writing:** Write Formal Standard Letters and Texts about One's Field of Expertise. Explain a Graphic and Reflect the Content. **(6)**

5. **Grammar**: Future tense, imperfect tense, degrees of comparison, imperative mood. Script, Letters of alphabet, accents, sounds of groups of letters, punctuation marks, articles, nouns, sing./Pl , genders; mas. /fem. Structure of sentences & types like affirmative, negative interrogative & negative interrogative, Verbs: classes of verbs and conjugation patterns, Pronominal verbs; Present tense, The idea of auxiliary verb; prepositions; pronouns-subject, interrogative, relative, possessive, emphatic ; adjectives, adverbs. **(6)**

Note: Institute may offer any one of the following foreign languages to the students: SPANISH / FRENCH/ GERMAN/ JAPANESE / CHINESE

Suggested Text Books:

Relevant Standard Text Books, Videos, Audio CDs

SEMESTER II SC AND SE IL COURSES

Semester II	205 PRJ	205 PRJ-01 - Fundamentals of Project Management
3 Credits	LTP: 2:1:0	Subject Core (SC) Course – Project Management

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO205 PRJ.1	REMEMBERING	DEFINE the basic terms associated with modern Project Management and Organisational strategy.
CO205 PRJ.2	UNDERSTANDING	UNDERSTAND the organisational structure and culture and defining the Project.
CO205 PRJ.3	APPLYING	ESTIMATE project times & cost for defining the project plan.
CO205 PRJ.4	ANALYSING	ANALYZE Leadership traits for being an effective project manager and managing project teams.
CO205 PRJ.5	EVALUATING	ESTIMATE the risk involved in projects
CO205 PRJ.6	CREATING	CREATE project closure reports.

1. **Modern Project Management**:

What Is a Project - The Project Life Cycle, The Project Manager, The Importance of Project Management, Project Management Today: An Integrative Approach - Integration of Projects with Organizational Strategy, Integration of Projects through Portfolio Management, Integration of the Process of Implementing Actual Projects. **Organization Strategy and Project Selection:** The Strategic Management Process: An Overview, Scenario Planning, The Need for an Effective Project Portfolio Management System, A Portfolio Management System, Applying a Selection Model - Sources and Solicitation of Project Proposals, Ranking Proposals and Selection of Projects, Feasibility Report, Managing the Portfolio System - Balancing the Portfolio for Risks and Types of Projects, Overview of Outsourcing Project work, The Art of Negotiation (7+1)

2. **Organization Structure and Culture**:

Project Management Structures - Organizing Projects within the Functional, Organization, Organizing Projects as Dedicated Teams, Organizing Projects within a Matrix
Arrangement, Different Matrix Forms, What Is the Right Project Management Structure and various Considerations, Organizational Culture and Identifying Cultural Characteristics, Implications of Organizational Culture for Organizing Projects. **Defining the Project:** Defining the Project Scope, Project Scope Checklist, Establishing Project Priorities, Work Breakdown Structure, How WBS Helps the Project Manager, WBS Development, Integrating the WBS with the Organization, Coding the WBS for the Information System, Responsibility Matrices, Project Communication Plan (8+1)

3. **Estimating Project Times and Cost:**

Factors Influencing the Quality of Estimates, Estimating Guidelines for Times, Costs, and Top-Down Versus Bottom-Up Estimating, Methods for Estimating Project Times and Costs, and various Approaches for Estimating Project Times and Costs, Types of Costs, Refining Estimates, Creating a Database for Estimating Resources. Overview of Resources scheduling and resource allocation methods. (8+1)

4. **Leadership:**

Being an Effective Project Manager, Managing Vs Leading, managing project stakeholders and their expectations, Social Network Building, Ethics and Project Management, Building Trust: The Key to Exercising Influence, Qualities of an Effective Project Manager. Overview of Project Management Office. **Managing Project Teams**: Five-Stage Team Development Model, Building High-Performance Project Teams, Managing Virtual and Cross-cultural Project Teams, Project Team Pitfalls. Overview of Progress and Performance Measurement and Evaluation, MIS, KPIs and KPMs, Developing status Report. (8+1)

5. **Developing a Project Plan:**

Developing the Project Network, From Work Package to Network, Constructing a Project Network, Terminology, Basic Rules to Follow in Developing Project

Networks, Activity-on-Node (AON) Fundamentals, Network Computation Process, Understand PERT and CPM. **Managing Risk:** Risk Management Process, Probability Analysis, Risk Response Development, Mitigating Risk, Contingency Planning, Opportunity Management, Contingency Funding and Time Buffers, Budget Reserves, Management Reserves, Risk Response Control, Change Control Management. **Project Closure:** Types and closure activities, Post implementation evaluation, Retrospectives. (9+1)

Suggested Text Books

1. Clifford Gray, Erik Larson and Gautam Desai, Project Management, The Managerial Process, Tata McGraw Hill
2. Effective Project Management, Clements and Gido, Thomson – India Edition.
3. Samuel Mantel, Jack Meredith, Scott Shafer, Margret Sutton and MRGopalan, Project Management, Wiley India
4. Prasanna Chandra, Projects, Planning, Analysis, Selection, Financing, Implementation and Review, Tata McGrawHill

Suggested Reference Books

1. Project management Institute, The Guide to the Project Management Body of Knowledge (PMBOK Guide), PMI
2. Publication
3. Project Management Metrics, Kpis, And Dashboards - A Guide to Measuring and Monitoring Project Performance, Harold Kerzner, PhD

Suggested Audio /Visual Content

1. https://www.udemy.com/course/project-management-fundamentals
2. https://www.youtube.com/watch?v=JIKyxfZrsx4
3. Project Management https://www.youtube.com/watch?v=f4xD2nQut4Y
4. Fundamentals of Project Management https://www.youtube.com/watch?v=6LJLIfRfrts
5. Project Management Fundamentals https://www.youtube.com/watch?v=qTQsdJFG4SQ
6. Fundamentals of Project Planning and Managementhttps://www.youtube.com/watch?v=JonhH7zTUuw

Suggested Journals

https://www.journals.elsevier.com/international-journal-of-project-management
https://journals.sagepub.com/home/pmx
http://growingscience.com/beta/jpm
https://www.sciencedirect.com/journal/international-journal-of-project-management
https://www.pmi.org/learning/academic-research/project-management-curriculum-and-resources/academic-project-management-case-studies
https://www.pmsolutions.com/case-studies
https://www.apm.org.uk/resources/find-a-resource/case-studies/

Websites

https://www.pmi.org.in/
https://www.apm.org.uk/

Suggested Swayam Course

https://nptel.ac.in/courses/110/104/110104073/
https://nptel.ac.in/courses/110/107/110107081/

Semester II	206 PRJ	206 PRJSC-PRJ-02- Tools and Techniques in Project Management
3 Credits	**LTP: 2:0:1**	**Subject Core (SC) Course – Project Management**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO206 PRJ.1	REMEMBERING	DEFINE the key concepts used in Project Management.
CO206 PRJ.2	UNDERSTANDING	DIFFERENRTIATE between various tools used in Project Management.
CO206 PRJ.3	APPLYING	IDENTIFY the tools appropriate for the situation.
CO206 PRJ.4	ANALYSING	CATEGORIZE the tools used for data analysis.
CO206 PRJ.5	EVALUATING	ESTIMATE the durations, resource needs, and Costs for various projects.
CO206 PRJ.6	CREATING	SOLVE the relevant numerical in the scope of the subject and DRAW the diagrams such as Mind Map, Decision Tree etc.

1. **Basics of Working in Project Teams and Data Gathering in Project**:

Composition of Project Teams and Basic Interpersonal and Team Skills, Data Gathering in Project through Benchmarking, Check Sheets, Checklists, Focus Groups, Brainstorming, Statistical Sampling (7+1)

2. **Data Analysis:**

Cost Benefit Analysis, Cost of Quality,Schedule Compression, Alternatives Analysis,Make-or-Buy Analysis, Performance Index, Regression Analysis, Reserve Analysis, Sensitivity Analysis,Stakeholder Analysis, Technical Performance, Analysis, What-If Analysis (8+2)

3. **Advanced Data Analysis**:

Context Diagram, Funding Limit Reconciliation, Inspection, Method, Prompt Lists, Prototypes, Resource Optimization, Root Cause Analysis, Rolling-Wave Planning, Earned Value Analysis, Influence Diagrams Introduction to Critical Path Method, Leads and Lags, Precedence Diagramming, Decision Tree (8+1)

4. **Data Representation:**

Logical Data Model, Mind Mapping, Probability and Impact Matrix, Resource Breakdown Structure, RACI Matrix and Responsibility Assignment Matrix, Cause-and-Effect Diagram, Control Charts for variables and Control charts for Attributes, Flowcharts, Histograms, Stakeholder Mapping (9+1)

5. **Estimating**: Analogous Estimating, Bottom-Up Estimating, Estimate at Completion, Estimate to Complete, Parametric Estimating, To-Complete PerformanceIndex, Three-Point Estimating, Variance at Completion (9+1)

Note: Extensive use of data analysis software is recommended for this course.

Suggested Text Books

1. A ProjectManager'sBook ofTools andTechniquesA Companion to thePMBOK® Guide – Sixth Edition Cynthia Snyder Dionisio, Wiley and PMI
2. Project Management, K Nagarajan, New Age International Publishers

Suggested Reference Books

1. HBR guide to Project Management
2. Hillson D. A. & Simon P. W. 2012. "*Practical project risk management: The ATOM Methodology*" (second edition). Vienna, US: Management Concepts. ISBN 978-1-56726-366-4
3. Chandra, P., Projects, Tata McGraw-Hill Education, 2009, ISBN: 0070077932 | ISBN: 978007007793
4. Levy, F. K. and Wiest, J. D., A Management Guide to PERT/CPM, Prentice Hall, 1969, ISBN-10: 0135485118 | ISBN-13: 9780135485118.

5. Lewis, R., Project Management, McGraw-Hill, 2006, ISBN 0-07-147160-X.
6. Moder, J. J. and Phillips, C. R., Project Management with CPM, PERT and Precedence Diagramming, Van Nostrand Reinhold,1983, ISBN-10: 0442254156 | ISBN-13: 978-0442254155.
7. Morris, P. W. G., and Pinto, J. K., The Wiley Guide to Managing Projects, 2004, John Wiley & Sons, ISBN: 9780471233022.
8. Phillips, J., PMP Project Management Professional Study Guide, McGraw-Hill, 2003. ISBN 0-07-223062-2.
9. Pritsker, A. A. B., Modeling and analysis using Q-GERT networks, John Wiley & Sons Inc., 1979, ISBN: 0470266481 | ISBN: 9780470266489.

Suggested Audio Visuals Links
https://www.youtube.com/watch?v=VV2feQewbJg
https://www.youtube.com/watch?v=qUuVnbuDrk8

Suggested Journals
International Journal of Project Management
Project management: cost, time and quality, two best guesses and a phenomenon, it's time to accept other success criteria

Websites
https://onlinepmcourses.com/40-ted-talks-for-project-managers/
http://pmipunechapter.org/Publications/Newsletters/tabid/255/Default.aspx

Suggested Swayam Course
https://nptel.ac.in/courses/110/104/110104073/
https://nptel.ac.in/courses/110/107/110107081/
https://nptel.ac.in/courses/106/105/106105218/
https://nptel.ac.in/noc/courses/noc19/SEM2/noc19-mg30/
https://nptel.ac.in/noc/courses/noc17/SEM2/noc17-mg17/
https://nptel.ac.in/courses/112/102/112102106/

Semester II	**217 PRJ**	**217 PRJ SE-IL-PRJ-01 Software Project Management**
2 Credits	**LTP: 2:0:0**	**Subject Elective (SE-IL) Course – Project Management**

CO#	**COGNITIVE ABILITIES**	**COURSE OUTCOMES**
CO217 PRJ.1	REMEMBERING	Describe the basic terms associated with the introduction of software project management and overview
CO217 PRJ.2	UNDERSTANDING	Understand the software programme management, evaluation and approach
CO217 PRJ.3	APPLYING	Identify the challenges in estimating Project times & cost, and developing project plan
CO217 PRJ.4	ANALYSING	Analyze the risks associated, resource allocation and monitoring & control
CO217 PRJ.5	CREATING	Managing the contracts and software quality, people and teams

1. Introduction to Software Project Management:
What is project? Software Project Vs. Other Types. Activities by Software Project Mgt. Plans, Methods and Methodologies. Problems with Software Projects. Management Control, Stakeholders, **Overview:** Step Wise Project Planning: Project Scope, Objectives, Infrastructure, Characteristics, Effort, Estimation, Risk Identification, Feasibility Study. (5+1)

2. **Programme Management & Project Evaluation:**

Meaning, Managing Allocation of resources. Creating Programme. Individual Projects. Technical Assessment, Cost Benefit Analysis & Risk Evaluation. **Project Approach:** Intro. Technical Plan, Choice of Process Models: Waterfall, V-Process, Spiral. Prototyping. Incremental Delivery.**Computer Aided Software Engineering (CASE) Tools:** CASE Concepts; Classification of CASE Tools; Steps for CASE Tool Implementation; Integrated CASE Environments. (5+1)

3. **Effort Estimation:**

Meaning, Problems with Estimation, Basis, Estimation Techniques. Albrecht Function Point Analysis. Function points Mark II. COCOMO Model. Activity Planning: Objectives, Project Schedule, Network Planning Model. Time Dimension. Identifying Critical Path. (5+1)

4. **Risk Management:**

Categories of Risk. Identification. Assessment. Schedule Risk. Applying PERT Technique. **Resource Allocation:** Identifying Resource Requirements. Scheduling Resources. Publishing the Resource Schedule & Cost Schedule. Scheduling Sequence. **Monitoring & Control:** Creating Frameworks. Data collection. Visualising Progress. Cost Monitoring. Change Control. (5+1)

5. **Managing Contracts:**

Introduction, Types of contracts, stages in placement, contract management, Acceptance. **Software Quality:** Introduction, Defining Software Quality. ISO 9126. Software Measures. Product Vs. Process Quality Management. External Standards. **Managing people and organising teams:** Introduction, understanding behaviour, organisational behaviour, selecting right people, motivation, managing team, decision making, Leadership, Organisational structures . Overview of ISO 9126 and ISO 12207. (5+1)

Suggested Text Books

1. Software Project Management by Bob Hughes and Mike Cotterrel, McGraw Hill Publication, 2nd edition
2. Information Technology Project Management: KathySchwalbe Thomson Publication
3. Information Technology Project Management providing measurable organizational value Jack Marchewka Wiley India
4. Applied software project management Stellman& Greene SPD
5. Software Engineering Project Management by Richard Thayer, Edward Yourdon WILEY INDIA.

Suggested Reference Books

1. Project management Institute, The Guide to the Project Management Body of Knowledge (PMBOK Guide), PMIPublication
2. Software Engineering for students: A Programming Approach by Douglas Bell, Pearsonpublication
3. Managing Information Technology Project, 6edition, by Kathy Schwalbe, CengageLearning publication
4. Software Engineering, 7th edititon, by Roger S Pressman, McGraw Hill Publication..

Suggested Audio /Visual Content

1. Software Project Management https://www.youtube.com/watch?v=bXLTxa7wBO0
2. What is Software Project Management https://www.youtube.com/watch?v=V-4yE4PmJ90
3. https://www.udemy.com/course/project-management-fundamentals
4. Software PM, why it is different? https://www.youtube.com/watch?v=TYBVAvWkG6M
5. Need for Software PM https://www.youtube.com/watch?v=FCn0xVZQx3w
6. Fundamentals of Project Planning and Management https://www.youtube.com/watch?v=JonhH7zTUuw

Journals

1. Project Management Metrics, Kpis, And Dashboards - A Guide to Measuring and Monitoring Project Performance, Harold Kerzner, PhD
2. Overview of ISO 12207 https://www.iso.org/obp/ui/#iso:std:iso-iec-ieee:12207:ed-1:v1:en
3. https://www.pmi.org/learning/academic-research/project-management-curriculum-and-resources/academic-project-management-case-studies
4. https://www.pmsolutions.com/case-studies
5. https://www.apm.org.uk/resources/find-a-resource/case-studies/

6. https://cdn.ymaws.com/members.councilofmls.org/resource/resmgr/files/CMLS-PMCaseStudy18f.pdf
7. https://www.easyproject.com/solutions/easy-project-management-case-studies
8. https://www.semanticscholar.org/paper/A-CASE-STUDY-ON-SOFTWARE-PROJECT-MANAGEMENT-IN-%E2%80%93-Mandl-Striegnitz-Lichter/9cdbdd25c38d98b21f4fcb71b326d5a9e753a063

Websites
https://www.pmi.org.in/
https://www.apm.org.uk/

Semester II	**218PRJ**	**218PRJ Project Management in Manufacturing**
2 Credits	**LTP: 2:0:0**	**Subject Elective (SE-IL) Course – Project Management**

CO#	**COGNITIVE ABILITIES**	**COURSE OUTCOMES**
CO218 PRJ .1	REMEMBERING	Describe the basic terms associated with the manufacturing and management overview
CO218 PRJ .2	UNDERSTANDING	Understand the elements of manufacturing programme management approach and planning including team management
CO218 PRJ .3	APPLYING	Identify the challenges in PERT/CPM and Resource management
CO218 PRJ .4	ANALYSING	Analyze manufacturing economic analysis, data analysis & management
CO218 PRJ.5	EVALUATING	Managing the Expert System for Production Scheduling and Computer Simulation and Software Tools

1. **Manufacturing Systems Analysis:**

What is manufacturing, Manufacturing and high technology, Manufacturing systems definition, Manufacturing Management – managing product complexity, Production Management – design, planning and manufacturing, Project of Manufacturing, Computer Integrated Manufacturing, Human aspects, Quality standards, Manufacturing Technology Integration (5+1)

2. **Elements of Programme Management:**

Project Management Approach, Project Planning – Feasibility analysis, Proposal Development, Budget Planning, Project Organisation – Selecting Project Manager, Personal motivation, Organisational structures, Team building – Project partnering, conducting project meetings, Team Leadership, Project Scheduling and Control, The Triple C model – Project Communication; Cooperation, Coordination, Resolving Project Conflicts (5+1)

3. **PERT/CPM Techniques:**

Overview, CPM, Precedence Structure, Gantt Charts, Project Crashing, PERT Network analysis, Precedence Diagramming Method, Line of Balance, Complexity of Activity Networks, **Resource Management** – Resource assessment & Planning, Resource allocation in project Networks, Critical resource diagramming, Resource Work Rate analysis, Human Resource Management in projects

4. **Manufacturing Economic Analysis:**

Cost concepts, Cash Flow analysis, Break-even analysis, Manufacturing cost estimation, Budgeting and Capital allocation, Activity Based Costing. **Data Analysis & Management:** Data Management – determination, collection, organisation, measures & attributes, Data Presentation Charts, Project Tracking charts, Statistical Control.

5. **Expert System for Production Scheduling:**

Production sequencing & scheduling, role of expert system, Application background, **Computer Simulation and Software Tools** – Importance of simulation, Priority weights for resource allocation, Simulation Metamodel, Project Management Software, Selection of PM Software, Case Studies.

Suggested Text Books

1. Project Management in Manufacturing and High Technology Operations By Adedeji Bodunde Badiru, 2nd edition, John Wiley and Sons
2. Project Management Absolute Beginner's Guide, Author Gregory Horine, PMP
3. Project Management Metrics, KPIs, and Dashboards: A Guide to Measuring and Monitoring Project Performance, by Harold Kerzner, Wiley Books
4. Project Management for Environmental, Construction and Manufacturing Engineers, A Manual for Putting Theory into Practice, by Munier, Nolberto

Suggested Reference Books

1. Project management Institute, The Guide to the Project Management Body of Knowledge (PMBOK Guide), PMIPublication
2. Project Management, Planning and Control, 7thEdition, Managing Engineering, Construction and Manufacturing Projects to PMI, APM and BSI Standards, by Albert Lester, Butterworth-Heinemann
3. Project Management for Engineering, Business, and Technology, by John M. Nicholas, Herman Steyn, Butterworth-Heinemann
4. Project Management for Engineering, Business and Technology, By Nicholas, Published by Taylor&Francis
5. Project Management Metrics, KPIs, and Dashboards - A Guide to Measuring and Monitoring Project Performance, Harold Kerzner, PhD

Suggested Audio Visuals link

1. Fundamentals of Project Planning and Management
   a. https://www.youtube.com/watch?v=JonhH7zTUuw
2. Project management for industrial manufacturershttps://www.youtube.com/watch?v=e9Dq62UifdY
3. Project Management Simplified https://www.youtube.com/watch?v=ZKOL-rZ79gs
4. Project management in the manufacturing industry - Discover Project and Technical Consultancyhttps://www.youtube.com/watch?v=gYCAmu14oYw
5. Beginning Engineers Project Managementhttps://www.youtube.com/watch?v=Bhm4mLoJ48I

Suggested Journals

1. https://www.journals.elsevier.com/international-journal-of-project-management
2. https://journals.sagepub.com/home/pmx
3. http://growingscience.com/beta/jpm
4. https://www.sciencedirect.com/journal/international-journal-of-project-management
5. https://www.sciencedirect.com/science/article/pii/S1877050919322537
6. https://sciendo.com/journal/JEPPM

Website

1. https://www.pmi.org.in/
2. https://www.apm.org.uk/
3. https://pm-alliance.com/

Suggested Swayam Course

1. https://nptel.ac.in/courses/110/104/110104073/

Semester II	**219 PRJ**	**219 PRJ SE-IL-PRJ-03 Project Performance Measurement and Evaluation**
2 Credits	**LTP: 2:0:0**	**Subject Elective (SE-IL) Course – Project Management**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO219PRJ .1	REMEMBERING	DEFINE the actionable, and measurable goals that cascade from organizational mission to management and program levels
CO219PRJ .2	UNDERSTANDING	Cascading performance measures that can be used to measure how well mission, management, and program goals are being met
CO219PRJ .3	APPLYING	IDENTIFY and Established baselines from which progress toward the attainment of goals can be measured
CO219PRJ .4	ANALYSING	CATEGORIZE Accurate, repeatable, and verifiable data
CO219PRJ.5	EVALUATING	MODIFY Feedback systems to support continuous improvement of an organization's processes, practices, and results
CO219PRJ .6	CREATING	CARRY the audit of the project.

1. **Project Performance management**

Performance v conformance, Principles of Conformance Management ,Inspection ,Quality control ,Quality assurance ,Approaches to quality management ,conformance management: based on project objectives ,Linked to business objective and goals ,Criteria for success ,Key Performance Indicators (KPI) or Key Success, Indicators (KSI)

2. MONITORING PROGRESS

Information System Structure , data collected, Current status of project (schedule and cost) ,Remaining cost to compete project ,Date that project will be complete ,Potential problems to be addressed now ,Out-of-control activities requiring intervention, Cost and/or schedule overruns and the reasons for them ,Forecast of overruns at time of project completion.

3. PROJECT PROGRESS REPORT FORMAT

Progress since last report, Current status of project ,Schedule, Cost ,Scope ,Cumulative trends ,Problems and issues since last report ,Actions and resolution of earlier problems ,New variances and problems identified ,Corrective action planned, project control process, control, process of comparing actual performance against plan to identify deviations, evaluate ,courses of action, and take appropriate corrective action. Project Control Steps ,Setting a baseline plan. Measuring progress and performance. Comparing plan against actual. Taking actions

4. **MONITORING TIME PERFORMANCE**

Tools used to catch negative variances from plan and communicate project schedule status .Tracking and baseline Gantt charts ,Show expected, actual, and trend data for event, duration performance, disparity among monitoring systems, Time-Phase Baseline Plan ,Corrects the failure of most monitoring systems, to connect a projects actual performance to its schedule and forecast budget. Systems that measure only cost variances do not identify resource and project cost problems associated with falling behind or progressing ahead of schedule. Earned Value Cost/Schedule System An integrated project management system based on the earned value concept that uses a time-phased budget baseline to compare actual and planned schedule and costs.

5. **PROGRESS MONITORING INDICES**

Performance Indices Cost Performance Index (CPI) Measures the cost efficiency of work accomplished to date. Scheduling Performance Index (SPI) Measures scheduling efficiency. Percent Complete Indexes .Indicates how much of the work accomplished represents of the total budgeted (BAC) and actual,(AC) pounds to date. project success and Gap ,Appropriate intention ,Predictability of realization ,Minimization of client surprise ,Defining project success ,project and process integrity, gaps in perception, problem ,Briefing problem ,Design problem ,Planning problem ,Execution problem ,Project performance gap ,outcome ,project audit, audit - to make an official examination Health check ,Diagnose Treat problems / issues affecting project performance ,Helps in addressing the critical issues.

Suggested Text Books

1. A Project Managers Book of Tools and Techniques. A Companion to the
2. PMBOK® Guide – Sixth Edition Cynthia Snyder Dionisio. Wiley
3. The project planning scheduling and control, Fifth edition, James P Lewis

Suggested Reference Books

1. Gray, C.F. Larson, E.W. (2006), Project Management The Managerial Process, NY McGraw-Hill International/Irwin.
2. Reiss, G. (1995), Project Management Demystified Today's Tools and Techniques, 2nd Edition,
3. Winch, G. Lecture Notes
4. http//www.blackwellpublishing.com/winch/case.pdf
5. http//www.ce.cmu.edu/pmbook/
6. http//www.constructingexcellence.org.uk
7. http//www.maxwideman.com/guests/index.htm

Semester II	**220 PRJ**	**220 PRJ SE-IL-PRJ-04 Ideation and Project Planning**
2 Credits	**LTP: 2:0:0**	**Subject Elective (SE-IL) Course – Project Management**

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

CO#	**COGNITIVE ABILITIES**	**COURSE OUTCOMES**
CO220 PRJ .1	REMEMBERING	DEFINE various concepts related to project Management
CO220 PRJ .2	UNDERSTANDING	UNDERSTAND the perspective of project idea generation and selection
CO220 PRJ .3	APPLYING	APPLY various techniques of project planning
CO220 PRJ .4	ANALYSING	ANALYSE project feasibility from different angles
CO220 PRJ .5	CREATING	EVALUATE project ideas

1. **Introduction:**

overview: Definition of project, Types, objectives of project, factors affecting project, Project Management – Meaning process of project Management ,scope and functions of project management, Importance and limitations of Project management, tools and techniques of project management, project lifecycle (5+1)

2. **Project Idea Generation:**

Meaning, Generation of Idea ,sources of project Idea Generation tasks involved in generation and screening of idea factors affecting idea generation process, Tools and techniques for idea generation, importance of project idea generation, , Monitoring the environment, corporate appraisal ,scouting for project idea, preliminary screening, project rating index screening and selection process (5+1)

3. **Project Planning:**

Project planning process, importance, objectives and functions, project networking techniques-PERT, CPM, Scheduling of project, resource allocation, portfolio planning tools, facets of project planning (5+1)

4. **Project Analysis:**

Market and demand analysis, Technical analysis, financial analysis, Analysis of risk-sensitivity analysis, scenario analysis, Monte Carlo simulation, Decision tree analysis, Risk Analysis in practice (5+1)

5. **Project Evaluation:**

Project Evaluation Meaning and types of project evaluation, Areas of project evaluation, techniques of project evaluation, structure of project management Information system(PMIS),Meaning features of PMIS, Advantages disadvantages of PMIS, Project control-Type and process forecasting project cost, Project Audit, Project closure (5+1)

Suggested Text Books

1. Project Planning analysis selection Implementation and review Prasanna Chandra, TATA Mc GRAW HILL
2. Project Management K.Nagarajan, New, New AGE Publication.
3. Project Management Vasant Desai Himalaya Publication
4. Project planning scheduling and control, James P .Lewis, TATA Mc GREW HILL

Suggested Reference Books

1. Project Management the Managerial Process 5 th Edition, Erik W Larson, Clifford F Grey, TATA Mc GRAW HILL
2. Project Managers Book of Tools and techniques, Cynthia Synder Dionisio WILLY publication
3. Effective Project Management Robert K Wysocki, WILLY publication

Visualizing the project Management, WILLY publication

Journals

Project Management Journal, PMI

Journal of Modern Project Management (www.journalmocernpm.com)

Websites

www.wiley.com

www.pmi.org.in

Semester II	**221 PRJ**	**221 PRJ SE-IL-PRJ-05 Advanced Excel**
2 Credits	**LTP: 1:1:0**	**Subject Elective (SE-IL) Course – Project Management**

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

CO#	**COGNITIVE ABILITIES**	**COURSE OUTCOMES**
CO221 PRJ .1	REMEMBERING	SELECT appropriate menus and functions of MS Excel to Create, Format, Import, Merge, Save, Print Spreadsheets & Charts using business data.
CO221 PRJ .2	UNDERSTANDING	SHOW how to do basic troubleshooting and fix mistakes most people make when working with spreadsheets.
CO221 PRJ .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).
CO221 PRJ .4	ANALYSING	ILLUSTRATE the use of the most commonly used data-manipulation commands in MS Excel.
CO221 PRJ .5	EVALUATING	DERIVE insights from multiple data sources in MS EXCEL and work with it to answer relevant business questions.
CO221 PRJ .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+1)

2. **Excel Functions for Project Data 1:**

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, Goal seeker and 3D formula. (4+1)

3. **Excel Functions for Project Data 2:**

Textto 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, Spark lines, Dashboard reporting (6+1)

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. (6+1)

5. **Triple Constraints Management with Excel:**

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.(5+1)

Note:

1. The entire course should be delivered in the computer lab in an application oriented manner.
2. Business applications should be stressed rather than merely teaching Excel as software.

Suggested Text Books:

1. Excel 2016 Bible, John Walkenbach, John Wiley & Sons
2. Excel: Formulas & Functions, Robert Dinwiddie
3. Excel 2007 for Dummies by Greg Harvey
4. New Perspectives on Microsoft Office Excel 2007
5. Microsoft Excel 2016 Step by Step, Curtis Frye

Semester II	**222 PRJ**	**222 PRJ SE-IL-PRJ-06 Change Management in Project Management**
2 Credits	**LTP: 2:0:0**	**Subject Elective (SE-IL) Course – Project Management**

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

CO#	**COGNITIVE ABILITIES**	**COURSE OUTCOMES (CO'S)**
CO222 PRJ .1	REMEMBERING	DEFINE the key Concept of change management.
CO222 PRJ .2	UNDERSTANDING	UNDERSTANDING the process of change implementation
CO222 PRJ .3	APPLYING	APPLY ADKAR model of change
CO222 PRJ .4	ANALYSING	ANALYZE common factors in models of change
CO222 PRJ .5	EVALUATING	EVALUATE The standards for Project Management of a Project
CO222 PRJ .6	CREATING	CREATE a vision for change in Project Management

1. **Introduction to change management**

Importance, imperatives of change, Forces of change. Causes-social, economic, technological and organizational, Organizational culture& change, Sustaining Change, Evaluating Change, Innovation and Change, Change Log, Change Effectiveness. Common models of change: Virginia Satir change model, William Bridges transition model **(5+1)**

2. **Effective implementation of change**

Individual change: concept, need, importance & risk of not having individual perspective. Change in individual ADKAR model-Awareness, Desire, Knowledge, Ability, and Reinforcement. Team Change –concept, need, importance & limitation, change agents and effective change programs, Systematic approach to change: client & consultant relationship, Classic skills for leaders Change & its impact. Create urgency, Form powerful coalition, Create vision for change, Communicate vision, Remove obstacles, Create short term wins, Build on change, Anchor the changes in corporate culture **(5+1)**

3. **Resistance to change** - Overcoming Resistance to change – Managing Resistance, Manifestations of resistance, minimizing resistance to change, basics of OD Interventions to overcome change, Diagnosing Organizational Change, Change control, Change control Board (CCB) Change Control Plan, Change Control System**(5+1)**

4. **Change in Organization Project Management:** Description of OPM and context, Framing the disciplines, cycles of change, Assessing change readiness, Key factor of OPM- CSF, Potential barriers and change derailers, Synergies of teams, capabilities of sponsors **(5+1)**
5. **Change Management at the Project Level**: The standards for Project Management of a Project, How does project management apply to change, Change management activities in project management Process Groups and Knowledge areas, Change Management Practices in Project Management- Formulate change, Plan change, Implement change, Manage transitions, Sustain change**(5+1)**

Text Books

1. Change Management and Organizational Development by Ratan Raina
2. Leading Change by John P. Kotter
3. Organization change by Kavita Singh

Reference Books

1. Understanding organizational change by Mills, J H; Dye, K; & Mills, AJ (2009). Routledge: New York.
2. Who Moved My Cheese,Dr. Spencer Jhonson
3. Our Iceberg is Melting, John Kotter

Journals

https://www.sciencedirect.com/science/article/abs/pii/S0263786314001331

Audio Visual :

https://www.youtube.com/watch?v=WWdgFFVkPgA

https://www.youtube.com/watch?v=7c8xP1gRIWs

SWAYAM/NPTEL:

https://nptel.ac.in/courses/110/105/110105120/

Semester II	**223 PRJ**	**223 PRJ SE-IL-PRJ-07 Theory of Constraints**
2 Credits	**LTP: 2:0:1**	**Subject Elective (SE-IL) Course – Project Management**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO223 PRJ .1	REMEMBERING	DEFINE the key concepts of TOC.
CO223 PRJ .2	UNDERSTANDING	DEMONSTRATE knowledge & understanding of the concept of Drum-Buffer-Rope.
CO223 PRJ .3	APPLYING	IDENTIFY and mitigate both real constraints and managerial constraints.
CO223 PRJ .4	ANALYSING	ILLUSTRATE the tools and techniques that help in managing constraints to improve organizational performance.
CO223 PRJ .5	CREATING	DEVELOP solutions to common problems in Project Management, using TOC principles and methods.

1. **Introduction:**

What is a constraint? Introduction to Theory of Constraints (TOC) Principles of TOC (5+1)

2. **ToC Engines:**

Applications – Operations, Project Management, Finance and Accounting

3. **Systems and Constraints for ToC:**

'Simple' and a 'Complex' system. The five-step focusing process Understand the relationship between a realistic goal, necessary conditions for goal achievement, and any prerequisites for those meeting the necessary conditions. Discuss system constraint(s), their relative importance, and various approaches to managing them. Describe the TOC systemic or global metrics relative to organizations residing in different industrial sectors. Differentiate between the "cost" and "throughput" world orientations. (5+1)

4. **ToC Applications:**

Identify the three questions associated with the Change Sequence. Describe the managerial implications associated with each questions. The Thinking Processes (TP) logic tools those are most closely associated with answering each query and the linkages among the tools. Distinguish between necessity-based and sufficiency-based logic. Know the difference between a well-written and poorly-written undesirable effect (UDE).logically-tight evaporating (or conflict) cloud, categories of legitimate reservation. Advantage in using the TP tools resides with identifying assumptions associated with entity relationships. TOC approach to develop true win-win solutions in long-standing conflicts. Concept of an injection and explain how it achieves its purpose. Logical linkages between policies, measurements, and behaviors. Differentiate between effects and assumptions/facts of life entities within a logic structure. Identify the characteristics of and/or create a well-written entity. (5+1)

5. **ToC in action:**

Creating an effective plan for managing an internal supply chain using Simplified-DBR using VATI flow classification, including constraint/bottleneck identification, appropriate buffer management, differences between time and stock buffers, and establishment of the necessary communication links. Determine an optimal product mix for a simplified situation in which there is a functioning constraint. How to manage a single specific project according to TOC Critical Chain principles and CCPM in a multi-project environment. Sequential layers of resistance to change that must be overcome in order to gain management's buy-in to implementing system-based improvements. (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.
1. 3. Essays on Theory of Constraints by E M Goldratt, Great Barrington, North River

Audio Visual Content

1. A Guide to Implementing the Theory of Constraints (TOC) by Kelvyn Youngman: http://www.dbrmfg.co.nz
2. "What is TOC" videos: https://www.tocico.org/page/toc_portal
3. Basics of TOC videos: https://www.tocico.org/page/to7ic_basics_portal
4. The Goal movie: https://www.tocico.org/page/TheGoalMovieClip

Journals

1. A Tutorial on Project Management from a Theory of Constraints Perspective by Blackstone, John H.; Cox, James F.; Schleier, John G., International Journal of Production Research, Dec2009, Vol. 47 Issue 24
2. Theory of Constraints at Uni Co: Analyzing The Goal as a fictional case study by Tibben-Lembke, Ronald S., International Journal of Production Research, Apr2009, Vol. 47 Issue 7
3. Determination of buffer sizes for drum-buffer-rope (DBR)-controlled production systems by Ye, T.; Han, W., International Journal of Production Research, May2008, Vol. 46 Issue 10
4. Project Management Journal
5. Critical Chain by E M Goldratt, Great Barrington, North RiverInternational Journal of Management and Applied Science, ISSN: 2394-7926 Volume-5, Issue-3, Mar.-2019 http://iraj.in
6. Critical Chain Project Management: A Case Study in Software Industry 25 CRITICAL CHAIN PROJECT MANAGEMENT: A CASE STUDY IN SOFTWARE INDUSTRY 1 MARYAM MIRZAEI, 2 VICTORIA J. MABIN

Websites

1. http://www.goldratt.com/
2. http://www.scienceofbusiness.com/home/what-is-theory-of-constraints-toc/
3. http://www.tocico.org/
4. https://www.wrike.com/project-management-guide/faq/what-are-constraints-in-project-management/
5. https://www.researchgate.net/publication/320284452_Application_of_the_Theory_of_Constraints_for_Project_Management
6. https://www.marris-consulting.com/en/our-case-studies

7. Critical Chain Project Management (CCPM) _ the Executive Guide to Winning Results Ensemble Consulting Group
8. https://www.leanproduction.com/theory-of-constraints.html
9. https://www.tocinstitute.org/
10. https://www.scoop.it/topic/theory-of-constraints-by-philip-marris
11. https://goldrattindia.com/toc-master-class/
12. https://goldrattindia.com/wp-content/uploads/2019/10/Brochure_TOC-Masterclass-June-July-2021.pdf
13. Vector consulting for Indian case studies
14. https://yagnaworld.com/project-management/

Semester II	**224 PRJ**	**224 PRJ SE-IL-PRJ-08 Design Thinking**
2 Credits	**LTP: 2:0:0**	**Subject Elective (SE-IL) Course – Project Management**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO224PRJ .1	REMEMBERING	DEFINE the five stages of Design Thinking
CO224PRJ .2	UNDERSTANDING	UNDERSTAND the situations to evolve an innovative and workable solutions
CO224PRJ .3	APPLYING	APPLY design thinking to your real-life problems / situations in order to evolve an innovative and workable solutions
CO224PRJ .4	EVALUATING	DIFFERENTIATE between Creative thinking and Innovative Thinking
CO224PRJ .5	CREATE	IMPLEMENT design thinking to your real-life problems

1. **Innovation & Creativity:**

Meaning of Innovation and creativity. Difference between innovation and creativity, and its role in Industry and organizations, dynamics of creative thinking, Process of Design Thinking, implementing the process in driving innovation, Case Study. (5+1)

2. **Introduction to Design Thinking**:

What is Design Thinking, The five stages of design thinking, empathize, Define, Ideate and Test, Challenges best suited for Design Thinking. (5+1)

3. **Design Thinking Process:**

The process of problem Identification, How to generate Ideas, The process of idea generation, Mind Mapping tools. (5+1)

4. **Design Thinking Application:**

An exercise in design thinking& implementing design thinking through a workshop & exercise case studies in design thinking, design thinking process. Case Study (5+1)

5. **Design Thinking Case Studies:**

Design Thinking in Various Sectors (Health sector, Finance, Education, Infrastructure) Design thinking case studies in retail, design thinking case studies in banking, design thinking case studies in management decisions. (4+2)

Suggested Text Books

1. Design Thinking by Michael G Luchs, K Scott Swan, Abbie Griffin (WILEY)
2. The Design Thinking by Patrick , Michael Lewrick, Larry Leifer (WILEY)
3. The Art of Creative Thinking by Rod Judkins
4. Design Thinking - Strategic innovations by IRIS

Suggested Reference Books

1. Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation by Tim Brown

2. The Design Thinking Playbook: Mindful Digital Transformation of Teams, Products, Services, Businesses and Ecosystemsby Michael Lewrick
3. Design Thinking: Understanding How Designers Think and Workby Nigel Cross
4. This is Service Design Thinking: Basics, Tools, Cases, by Marc Stickdorn, J. Schneider

Suggested Audio Visuals link
1. What Is Design Thinking? An Overview
https://www.youtube.com/watch?v=gHGN6hs2gZY
2. Design Thinking Full Course | Design Thinking Process | Design Thinking For Beginners
https://www.youtube.com/watch?v=4nTh3AP6knM
3. 5 Stages of the Design Thinking Process
https://www.youtube.com/watch?v=-ySx-S5FcCI
4. The Explainer: What Is Design Thinking?
https://www.youtube.com/watch?v=_WI3B54m6SU
Suggested Journals
1. Journal of Design Thinking https://jdt.ut.ac.ir/
2. Design Thinking: A Creative Approach to Problem Solvinghttps://journals.sagepub.com/doi/abs/10.1177/2379298119871468
3. The Journal of Design Thinkinghttps://www.designresearchsociety.org/articles

Semester II	**225 PRJ**	**225 PRJ-SE-IL-PRJ-09 Business Model Canvas**
2 Credits	**LTP: 1:1:0**	**Subject Elective (SE-IL) Course – Project Management**

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

CO#	**COGNITIVE ABILITIES**	**COURSE OUTCOMES**
CO225 PRJ .1	REMEMBERING	DEFINE the key concepts used in Business Model Canvas
CO225 PRJ .2	UNDERSTANDING	DIFFERENRTIATE between various types of Business Models
CO225 PRJ .3	APPLYING	APPLY Blue Ocean Strategy for the business verticals
CO225 PRJ .4	ANALYSING	CATEGORIZE the tools used for Data Analysis
CO225 PRJ .5	EVALUATING	UNLOCK potential in the existing model through enhanced value or reduction in cost or both
CO225 PRJ .6	CREATING	Bring in innovative ideas to CONSTUCT new business models

1. Canvas Tools for Business

Use of Business Model Canvas for describe, design, challenge, invent, and pivot your business model. The Value Proposition Canvas for identifying core challenges of every business, creating compelling products and services customers want to buy. Use of The Team Alignment Map is a simple, visual and practical tool that helps teams meet their project's objectives on time while dramatically reducing miscommunications, frustrations and unnecessary stress. (7+1)

2. Introduction to Business Model Canvas

Definition of a Business Model, The 9 Building Blocks, Understanding the each block 1) Value Proposition,2) Customer Segments,3) Delivery Channels, 4) Customer Relationships,5)Revenue Streams 6) Key Resources,7) Key Activities,,8) Key Partnerships,9) Cost Structure

3. Using Business Model Canvas

The Business Model Canvas, Use of Business Model Canvas for Who are you targeting? Customer segment? What value are you creating? Value proposition? How do you reach this market? Channels to customer? What kind of relationship will you establish? Transactional or long term? What are your deliverables? Products and services? How will you deliver value? What are your customers willing to pay? Revenue streams?

4. Patterns of Business Models

Unbundling Business Models, The Long Tail, Multi-Sided Platforms, FREE as a Business Model, Open Business Models

5. **Design and Strategy**

Design: Customer Insights, Ideation, Visual Thinking, Prototyping, Storytelling, Scenarios **Strategy:** Business Model Environment, Evaluating Business Models, Business Model Perspective on Blue Ocean Strategy, Managing Multiple Business Models, Business Model Design Process.

Suggested Text Books

1. Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers, Alexander Osterwalder, Yves Pigneur, ISBN: 978-0-470-87641-1 July 2010 288 Pages

Suggested Reference Books

1. Value Proposition Design: How to Create Products and Services Customers Want (The Strategyzer Series) Paperback – 30 October 2014 by Alexander Osterwalder (Author), Yves Pigneur (Author), Gregory Bernarda (Author), Alan Smith (Author), Trish Papadakos (Designer)

Suggested Audio Visuals link

https://www.youtube.com/watch?v=8GIbCg8NpBw
https://www.youtube.com/watch?v=ynQasjpBTCk

Suggested Journals

https://hbr.org/2013/05/a-better-way-to-think-about-yo
https://www.academia.edu/6582229/Business_Model_Generation_A_handbook_for_visionaries_game_changers_and_challengers

Websites:

https://www.strategyzer.com/
https://www.projectwizards.net/en/blog/2019/09/business-model-canvas
https://www.strategyzer.com/canvas
http://businessmodelalchemist.com/

Semester II	**226 PRJ**	**226 PRJ SE-IL-PRJ-10 Purchasing and Contracting for Projects**
2 Credits	**LTP: 2:0:0**	**Subject Elective (SE-IL) Course – Project Management**

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

CO#	**COGNITIVE ABILITIES**	**COURSE OUTCOMES**
CO226 PRJ .1	REMEMBERING	REMEMBER basic concepts of contracting for projects
CO226 PRJ .2	UNDERSTANDING	UNDERSTAND advantages and limitations of various purchasing policies.
CO226 PRJ .3	APPLYING	APPLY the basic techniques of negotiation
CO226 PRJ .4	ANALYSING	ANALYZE the criteria's for selection of the supplier
CO226 PRJ .5	EVALUATING	EVALUATE the proposals for deciding for Make and Buy
CO226 PRJ .6	CREATING	CREATE a purchase order for the sample product

1. **Project Purchasing Process, Policy & Procedures:**

Purchasing Objectives, Responsibilities of Purchasing, Types of Purchases, Centralized, Decentralized and Hybrid Purchasing, Purchasing Procedures, Advantages & Disadvantages of Policies, Policies defining - Role & conduct of Purchasing, Factors affecting Project Purchasing, Introduction to Buyer-Supplier Relationship, Operational and Ethical Issues in Project Purchasing. (5+1)

2. **Strategic Sourcing in Projects – Supplier Evaluation and Selection:**

Linking Project Purchasing and Corporate Strategy, Translating Corporate Objectives into Purchasing Goals, Translating Purchasing Objectives into Purchasing Goals, Types of Purchasing Strategies, Supply Base Optimization, Critical Role of In-sourcing / Outsourcing, The In-sourcing / Outsourcing Decision Process, Make or Buy, Supplier Evaluation and Selection Process, Need for Supplier Selection, Identifying key sourcing requirements, Evaluation and Selection, Key Supplier Evaluation Criteria(5+1)

3. **Project Negotiation:**

Objectives of negotiation, when to negotiate, The negotiation Process, Preparation, Establishing the Objectives, Dynamics of Negotiation, Phases in face-to-face negotiation, Negotiation Techniques – traditional, collaborative, price analysis, cost analysis. (5+1)

4. **Basics of Contract Management**:

Types of Contracts – Fixed Price, Cost based / Indexation, Long term, Short term. Consideration when selecting contract types, How to write a Contract. Essential elements of Contract, Purchase Order (P.O), Difference between P.O & Contract (5+1)

5. **Contracting Management:**

Meaning, Stages, challenges, benefits, Contract Management activities, Phases of Contract Management; Digital Contract Management: Concept, benefits, Contract Management System requirements (5+1)

Suggested Text Books:

1. Purchasing & Supply Chain Management by Monczka, Trent, Handfield, Cengage South Western, 3rd Edition
2. Purchasing & Supply Chain Management by Lysons and Farrington, Pearson Education, 2010

Suggested Reference Books:

1. Purchasing & Supply Chain Management by Dobler, Burt, TMGH, 6th Edition
2. New Directions in Supply Chain Management: Technology & Strategy Implementation by Tonya Boone and Ram Ganeshan, Jaico Publishing, 2007

Semester III and IV Syllabus

Generic Core (GC) Courses - Semester III

Semester III **301– Strategic Management**

3 Credits **LTP: 2:1:1** **Compulsory Generic Core Course**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO301.1	REMEMBERING	DESCRIBE the basic terms and concepts in Strategic Management.
CO301.2	UNDERSTANDING	EXPLAIN the various facets of Strategic Management in a real world context.
CO301.3	UNDERSTANDING	DESCRIBE the trade-offs within and across strategy formulation, implementation, appraisal.
CO301.4	APPLYING	INTEGRATE the aspects of various functional areas of management to develop a strategic perspective.
CO301.5	ANALYSING	EXPLAIN the nature of the problems and challenges confronted by the top management team and the approaches required to function effectively as strategists.
CO301.6	CREATING	DEVELOP the capability to view the firm in its totality in the context of its environment.

1. **Understanding Strategy:** Concept of strategy, Levels of Strategy - Corporate, Business and Functional. Strategic Management - Meaning and Characteristics. Distinction between strategy and tactics, Strategic Management Process, Stakeholders in business, Roles of stakeholder in strategic management. Strategic Intent – Meaning, Hierarchy, Attributes, Concept of Vision & Mission - Process of envisioning, Difference between vision & mission. Characteristics of good mission statements. Business definition using Abell's three dimensions. Objectives and goals, Linking objectives to mission & vision. Critical success factors (CSF), Key Performance Indicators (KPI), Key Result Areas (KRA). Components of a strategic plan, Analyzing Company's External Environment: Environmental appraisal, Scenario planning – Preparing an Environmental Threat and Opportunity Profile (ETOP). Analyzing Industry Environment: Industry Analysis - Porter's Five Forces Model of competition, Entry & Exit Barriers. (7+2)
2. **Analyzing Company's Internal Environment:** Resource based view of a firm. Analyzing Company's Resources and Competitive Position - meaning, types & sources of competitive advantage, competitive parity & competitive disadvantage. VRIO Framework, Core Competence, characteristics of core competencies, Distinctive competitiveness. Benchmarking as a method of comparative analysis. Value Chain Analysis Using Porter's Model: primary & secondary activities. Organizational Capability Profile: Strategic Advantage Profile, Concepts of stretch, leverage & fit, ways of resource leveraging – concentrating, accumulating, complementing, conserving, recovering. Portfolio Analysis: Business Portfolio Analysis – BCG Matrix – GE 9 Cell Model. (7+2)
3. **Generic Competitive Strategies:** Meaning of generic competitive strategies, Low cost, Differentiation, Focus – when to use which strategy. Grand Strategies: Stability, Growth (Diversification Strategies, Vertical Integration Strategies, Mergers, Acquisition & Takeover Strategies, Strategic Alliances & Collaborative Partnerships), Retrenchment – Turnaround, Divestment, Liquidation, Outsourcing Strategies. (7+2)
4. **Strategy Implementation:** Barriers to implementation of strategy, Mintzberg's 5 Ps – Deliberate & Emergent Strategies. Mc Kinsey's 7s Framework. Organization Structures for Strategy Implementation: entrepreneurial, functional, divisional, SBU, Matrix, Network structures, Cellular/ Modular organization, matching structure to strategy, organizational design for stable Vs. turbulent environment, Business Continuity Planning. Changing

Structures & Processes: Reengineering & strategy implementation – Principles of Reengineering. Corporate Culture: Building Learning organizations, promoting participation through technique of Management by Objectives (MBO). Strategy Evaluation: Operations Control and Strategic Control - Symptoms of malfunctioning of strategy –Concept of Balanced scorecard for strategy evaluation. (7+2)

5. **Blue Ocean Strategy:** Difference between blue & red ocean strategies, principles of blue ocean strategy, Strategy Canvass & Value Curves, Four Action framework. Business Models: Meaning & components of business models, new business models for Internet Economy– E-Commerce Business Models and Strategies – Internet Strategies for Traditional Business –Virtual Value Chain. Sustainability & Strategic Management: Start ups- growth and reasons for decline. Threats to sustainability, Integrating Social & environmental sustainability issues in strategic management, meaning of triple bottom line, people-planet-profits. (7+2)

Suggested Text Books:

1. Strategic Management and Business Policy by Azhar Kazmi, Tata McGraw-Hill
2. Strategic Management by Ireland, Hoskisson & Hitt, Indian Edition, Cengage Learning
3. Crafting and Executing Strategy- The Quest for Competitive Advantage by Thompson, Strickland, Gamble & Jain, Tata McGraw-Hill
4. Concepts in Strategic Management & Business Policy by Thomas L. Wheelen & J. David Hunger, Pearson

Suggested Reference Books:

1. Strategic Management by Dr. Yogeshwari L. Giri
2. Competitive Strategy: Techniques for Analyzing Industries and Competitors by Michael E. Porter, First Free Press Edition
3. Competing for the Future by Gary Hamel & C.K. Prahlad, .
4. Blue Ocean Strategy by Kim & Mauborgne

Semester III **302– Decision Science**

3 Credits **LTP: 2:1:1** **Compulsory Generic Core Course**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO302.1	REMEMBERING	DESCRIBE the concepts and models associated with Decision Science.
CO302.2	UNDERSTANDING	UNDERSTAND the different decision-making tools required to achieve optimisation in business processes.
CO302.3	UNDERSTANDING	APPLY appropriate decision-making approach and tools to be used in business environment.
CO302.4	APPLYING	ANALYSE real life situation with constraints and examine the problems using different decision-making tools
CO302.5	ANALYSING	EVALUATE the various facets of a business problem and develop problem solving ability
CO302.6	CREATING	DISCUSS & propose the various applications of decision tools in the present business scenario.

1. **Introduction:** Importance of Decision Sciences & role of quantitative techniques in decision making. **Assignment Models:** Concept, Flood's Technique/ Hungarian method, applications including restricted, multiple assignments and maximization objective. **Transportation Models:** Concept, formulation, problem types: balanced, unbalanced, restriction and maximization, Basic initial solution using North West Corner, Least Cost & VAM, Optimal solution using MODI, multiple solution case to be considered. (8+2)

2. **Linear Programming:** Concept, Formulation & Graphical Solution. Markov Chains: Applications related to management functional areas, estimation of transition probabilities. Simulation Techniques: Monte Carlo Simulation, scope, and limitations. (7+2)
3. **Probability:** Concept, Conditional Probability theorem-based decision making. Probability Distributions: Normal, Binomial, Poisson (Simple numerical for decision making expected). **Queuing Theory:** Concept, Single Server (M/M/I, Infinite, FIFO), Introduction of Multi Server (M/M/C, Infinite, FIFO) (Numerical on single server model expected) (8+2)
4. **CPM & PERT:** Concept, Drawing network, identifying critical path, Network calculations- calculating EST, LST, EFT, LFT, Slack, floats & probability of project completion in case of PERT. Network crashing: Concept of project cost and its components, time and cost relationship, crashing of CPM network. (8+2)
5. **Decision Theory:** Concept, Decision making under uncertainty Maximax, Maximin, Minimax regret, Hurwicz's & Laplace criterion, Decision making under risk (EMV, EVPI) for items with and without salvage value. Game Theory: Concept, 2 × 2 zero sum game, Pure & Mixed Strategy, solution of games with dominance, average dominance method. Sequencing problem: Introduction, Problems involving n jobs-2 machines, n jobs- 3 machines & n jobs-m machines, Comparison of priority sequencing rules.(6+2)

Important Note:

1. In each unit caselet related to management situation in various functional domains shall be discussed by the subject teacher.
2. Numerical based on functional areas of business are expected on each unit

Suggested Text Books:

1. Quantitative Techniques in Management by N.D. Vohra Tata, McGraw Hill Publications (latest Edition)
2. Operations Research by Hamdy A. Taha, Pearson Publication (latest edition)
3. Operations research by Hira Gupta, S. Chand Publication (latest Edition)
4. Operations Research Theory & Applications by J K Sharma- MacMillan Publishers India Ltd. (latest Edition)
5. Statistical Methods by S.C. Gupta S. Chand Publication (latest edition)
6. Comprehensive Statistical Methods by P.N. Arora, Sumeet Arora, S. Arora S. Chand Publication

Suggested Reference Books:

1. Quantitative techniques & statistics By K L Sehgal Himalaya Publications (latest edition)
2. An introduction to management science: Quantititave approcach for decision making- Cengage Learning-Anderson (latest edition)
3. Introduction to Operations Research by Billey E. Gilett,TMGH (latest edition)
4. Operations Research by Nita Shah, Ravi Gor, Hardik Soni, PHI (latest Edition).
5. Operations Research by R. Pannerselvam, Prentice Hall India

Generic Core (GC) Courses - Semester IV

Semester IV	**401 – Enterprise Performance Management**
3 Credits **LTP: 2:1:1**	**Compulsory Generic Core Course**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO401.1	REMEMBERING	Enumerate the different parameters & facets of management control of an enterprise.
CO401.2	UNDERSTANDING	Illustrate the various techniques of enterprise performance management for varied sectors.
CO401.3	UNDERSTANDING	Determine the applicability of various tools and metrics as a performance evaluation & management tools.
CO401.4	APPLYING	Analyse the key financial & non-financial attributes to evaluate enterprise performance.
CO401.5	ANALYSING	Formulate the various parameters to evaluate enterprise performance effectively through implementation of strategy.

1. **Performance Management:** Concept, Need, Linkages with Strategic Planning, Management Control and Operational Control. **Performance Evaluation Parameters:** Financial – Responsibility Accounting –Concept of Responsibility Centers, Revenue Centre, Expense Centre - Engineered and Discretionary costs – Committed costs, Profit Centre, Investment Centers. ROI, ROA, MVA, EVA – DuPont analysis. (Numerical Not expected – Interpretation only) Limitations of Financial Measures**. (8+1)**
2. **Performance Evaluation Parameters:** Non-Financial Performance measures – Balanced Scorecard, Malcolm Baldrige Framework. **Measuring SBU Level Performance:** Concept, Need, and Linkages with Enterprise Performance Management – Goal Congruence. Transfer Pricing – Objective, Concept, and Methods – Cost based, Market price based & Negotiated, Applicability of Transfer Pricing. (Numerical / Case is expected) (7+1)
3. **Capital Expenditure Control**: Concept, Need, Process of Capital Budgeting, Types of capital expenditure decisions – pre-sanction, operational and post-sanction control of capital expenditure. Tools & Techniques of Capital Expenditure Control: Performance Index, Technical Performance Measurement, Post completion audit. **Performance Evaluation Parameters for Projects**: Project Control Process: Setting base line plan, Measuring progress and performance, comparing plan against action, Taking action, Schedule variance (time overruns), Project Cost Variance (cost overruns). (8+2)
4. **Performance Evaluation Parameters for Banks:** Customer Base, NPAs, Deposits, ROI, Financial Inclusion, Spread, Credit Appraisal, Investments. **Performance Evaluation Parameters for Retail:** ABC analysis, Sell Through Analysis, Multiple Attribute Method, Gross Margin Return on Investment (GMROI), GMROI as Gross Margin/Average Inventory at Cost, **Performance Evaluation Parameters for Non-Profit:** Features of Non-profit organizations, fund accounting, governance, product pricing, strategic planning & budget preparations, social audit. (8+2)
5. **Performance Evaluation Parameters for E-Commerce:** Features of E commerce, Need of evaluation, Metrics for performance evaluation: Business metrics, Traffic metrics, Conversion matrix & Audience involvement metrics. Various KPI used by E Commerce industry : Website traffic , referral traffic, conversion rate optimization, bounce rate of website, repeat visit, cart abandon rate, cost per conversion, average order value, revenue on advertising spend, customer life time value, net promoter score, churn rate. **Audit Function as a Performance Measurement Tool:** Financial Audit, Internal Audit, Cost Audit, Management Audit – Principles and Objectives (Audit Reports / Formats are expected to be discussed in the class from a performance measurement perspective). (9+1)

Suggested Text Books:

1. Management Control System by Robert Anthony & Vijay Govindrajan, Tata McGraw Hill Publishing Co. Ltd.

2. Management Control in Non Profit Organizations by Robert Anthony & David Young, McGraw Hill International Publication
3. Retailing Management by Swapna Pradhan, TMGH

Suggested Reference Books:

1. Project Management by K.Nagarajan, New Age International Publications
2. Principles and Practices of Auditing by Ravindar Kumar & Virendar Sharma, PHI.
3. Principles and Practices of Banking by Indian Institute of Banking & Finance, MacMillan India Ltd.
4. Financial Management by Prasanna Chandra, TMGH
5. E business: A Canadian perspective for a Networked World , Gerald Trites, J. Efrim Boritz Pearson

Semester IV **402 – Indian Ethos & Business Ethics**

3 Credits **LTP: 2:1:1** **Compulsory Generic Core Course**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO402.1	REMEMBERING	DESCRIBE major theories, concepts, terms, models and framework of Indian ethos and business ethics. DISCOVER the contemporary Issues in Business Ethics
CO402.2	UNDERSTANDING	CLASSIFY and RECOGNIZE Karma, Karma Yoga and discover its relevance in business setting, ILLUSTRATE the business ethical decision rationale derived from Indian Heritage Scriptures.
CO402.3	UNDERSTANDING	APPLY Principles, Theories, Models and Framework of Indian ethos and business ethics in order to incorporate value system in work culture and work place.
CO402.4	APPLYING	DEVELOP and EXHIBIT analytical, problem solving skills, and work ethos by COMPREHENSION and PRACTICE of Indian ethos and value system
CO402.5	ANALYSING	IMPLEMENT, EVALUATE, and FACILITATE ethical business behavior and promote sustainable business ecology, improve profitability, foster business relation and employee productivity.
CO402.6	CREATING	ELABORATE Ethical dilemmas in different business areas of marketing, HRM and Finance and ADAPT dilemma resolution interventions by referring to certain norms, theories and models of Eastern Management.

1. **Indian Ethos and Values : Its relevance at Workplace: Indian Ethos-** Meaning, Features, Need, Evolution, Relevance, Principles Practiced by Indian Companies, Requisites, Elements, Role of Indian Ethos in Managerial Practices, Triguna Theory-OSHA Model. Work Ethos meaning, dimensions of Work Ethos. **Values -** Concepts, Values in business, Value system in work culture, and Values of Indian Managers, Relevance of Value Based Management in Global Change; Impact of values on Stakeholders; Trans-Cultural Human Values, Ethics v/s Ethos, Eastern Management v/s Western Management. (8+2)
2. **Indian Model of Management:** Concept of Indian Model of Management in the Indian socio-political environment, Laws of Karma and its relevance in business settings, Indian Heritage in Business-Management. Production and Consumption: Management lessons from Indian heritage scriptures (like Mahabharata & Ramayana), Leadership Pointers from Kautilya's Arthashastra, VEDA Model of Leadership, Corporate Rishi Model, Theory K, WE theory (West-East Theory) (11+2)
3. **Business Ethics as Applied ethics:** Meaning, Characteristics of Business Ethics, Importance of Business Ethics (Long Term growth, Cost reduction, Risk mitigation, Limited resources, etc.) Types of Business Ethics (Transactional Ethics, Participatory Ethics, Recognition Ethics), Factors influencing business ethics. Categories of Ethics (Personal, Professional, Managerial) Business Code of Conduct),
4. Approaches to Business Ethics: Consequentialist & Non- Consequentialist Theories of Ethics - Deontological Theory & Teleological Theory, Kohlberg Six stage moral development. (11+2)

5. **Ethical decision making in business matrix:** Framework of Ethical decision making, Ethical dilemmas in different functional areas of Business (Finance, Marketing HRM and International Business), Intellectual Property Rights and Business Ethics, Ethical challenges for Managers, Ethical Decision Making process, it's Model -STEP Model, PLUS Filter Model.(8+2)

6. **Applications of Ethical Principles to Contemporary, Moral and Ethical problems / issues related to Business:** Contemporary cases on Corporate Strategy and Climate Change, Corporate Strategy and Natural resource depletion, Corporate Social Responsibility, transparency and accountability, Social Media and E-Platforms. Current ethical issues like Bank scams, Airlines etc. (7+2)

Suggested Text Books:

1. Business Ethics (Concept, Application, Framework and Cultural Impact) k. Aswathappa, J. Ushar Rani, Sunanda Gundavajhala, Himalaya Publishing House
2. Ethics in Management and Indian Ethos, Biswanath Ghosh , Vikas Publishing House
3. Indian Ethos of Management, Tushar Agarawal and Nidhi Chandorkar, Himalaya Publication House.
4. Indian Ethos and Values for Managers, Khandelwal , Himalaya Publishing House

Suggested Reference Books:

1. Indian Ethos & Values In Management, Nandagopal R, Ajith Sankar, Tata McGraw Hill Publishing Co. Ltd.
2. New Mantras in Corporate corridors From Ancient Routes to Global Roots, Subhas Sharma, New Age International Publishers
3. Business Ethics: Concepts and Cases, Velasquez, Pearson Education India.
4. Corporate Chanakya , Radhakrishnan Pillai , Jaico Publishing House

Generic Courses (Electives) – University Level – Semester III & IV

Semester III | **306 – International Business Economics**

2 Credits | **LTP: 2:0:0** | **Generic Elective – University Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 306 .1	Remembering	RECALL and ENUMERATE the economic aspects of international business.
CO 306 .2	Understanding	DESCRIBE the outcomes of globalising and liberalising trade environment, trade policy frameworks and macroeconomic linkages of the open economy.
CO 306 .3	Applying	DISCUSS the mechanisms and working of the foreign exchange markets.
CO 306 .4	Analysing	EXAMINE how a protectionist trade policy improves or diminishes the prospects of survival / growth of business.
CO 306 .5	Evaluating	APPRAISE the implications of trade related policies under different levels of product market concentration?

1. **International Trade:** Trade Theories , Ricardo and Comparative advantage, Heckscher Ohlin model of factor abundance , Krugman's model of Intra-Industry Trade (5+1)
2. **Trade policies:** Unilateral and multilateral trade policies, Tariffs in competitive markets, WTO tariff policy, Quota, Tariff and quota in monopolistic markets, Dumping and Antidumping Duty under the WTO, Subsidies and Countervailing duties under the WTO, Export taxes, Export subsidies, Economic Integration - Custom Unions and Free Trade Areas - Major Regional Trade Agreements(5+1)
3. **Currency and International Finance:** Currency market and exchange rate, Spot and forward markets, Types of Foreign Exchange Transactions – Reading Foreign Exchange Quotations – Forward and Futures Market – Foreign-Currency Options – Arbitrage – Speculation and Exchange-Market Stability, Currency market and basic Central Bank operation, Product market approach to determination of exchange rate, Asset market approach to determination of exchange rate. (5+1)
4. **Exchange rate policies and macroeconomic management:** Fixed and flexible rates – Central Banks actions, Impact of changing exchange rates on exports and imports, Volatility managements by the government and Exchange rate regimes, Open economy macroeconomics, Monetary approach and asset market approach to predict future exchange rate, 3 International Financial Crises models - Understanding the recent few crises, The Euro Crisis/ crisis in Venezuela, Economic risk indicators for FDI and FII (5+1)
5. **International Banking:** Reserves, Debt and Risk : Nature of International Reserves – Demand for International Reserves – Supply of International Reserves – Gold Exchange Standard – Special Drawing Rights – International Lending Risk – The Problem of International Debt – Financial Crisis and the International Monetary Fund – Eurocurrency Market. (5+1)

Suggested Text Books:

1. International Economics Theory and Policy by Paul Krugman, Maurice Obstfeld, Pearson Education
2. International Economics by Robert Carbaugh, Thomson – South Western
3. International Business by John Daniels, Lee Radebaugh, Daniel Sullivan and Prashant Salwan, Pearson

Suggested Reference Books:

1. International Economics by Thomas Pugel, McGraw-Hill-Irwin
2. The World is Flat by Friedman Thomas
3. International Economics by Edward Leamer, editor,
4. Jagdish N. Bhagwati, Arvind Panagariya, and T. N. Srinivasan, Lectures on International Trade

5. Rethinking International Trade by Paul R. Krugman

Semester III **307– International Business Environment**

2 Credits **LTP: 2:0:0** **Generic Elective – University Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 307 .1	Remembering	Recall and Describe the key concepts of international Business Environment
CO 307 .2	Understanding	Understand the relevance of Multinational Corporations (MNCs) in global trade
CO 307 .3	Applying	Demonstrate the significance of FDI and FPI in respect of developing economy
CO 307 .4	Analysing	Analyze the issues related to Labor, Environmental and Global Value chain
CO 307 .5	Evaluating	Formulate and discuss the case related to various Agreements under WTO and contemporary global business environment.

1. **Introduction to International Business:** Importance, nature and scope of International business; modes of entry into International Business, internationalization process. Globalization: Meaning, Implications, Globalization as a driver of International Business. The Multinational Corporations (MNCs) – evolution, features and dynamics of the Global Enterprises. Consequences of Economic Globalization, Brexit, Reverse globalization. (5+1)
2. **International Business Environment:** Political Economy of International Business, Economic and Political Systems, Legal Environment, Cultural Environment, Ethics and CSR in International Business. (5+1)
3. **International Financial Environment:** Foreign Investments - Pattern, Structure and effects. Theories of Foreign Direct Investment, Traditional and Modern theories of FDI, Modes of FDI - Greenfield, Brownfield Investments, Mergers and Acquisitions, Motives of FDI, FDI contrasted with FPI. Basics of Forex Market. (5+1)
4. **International Economic Institutions and Agreements:** WTO, IMF, World Bank, UNCTAD Tariff and Non-tariff Barriers. Balance of Payment Account: Concept and significance of balance of payments, Current and capital account components. Introduction to Basic Concept of IFRS. (5+1)
5. **Emerging Issues in International Business Environment:** Growing concern for ecology, Digitalisation; Outsourcing and Global Value chains. Labor and other Environmental Issues, Impact of Pandemic COVID-19 on international trade. (5+1)

Suggested Text Books:

1. Global Business Management by Adhikary, Manab, Macmillan Publishers, New Delhi.
2. International Business Environment by Black and Sundaram, Prentice Hall of India, New Delhi
3. Economic Environment Of Business by Gosh, Biswanath, South Asia Book, New Delhi.
4. International Business by Aswathappa Tata Mc Graw Hill publications, New Delhi.
5. International Business by P. Subha Rao

Suggested Reference Books:

1. Going International Response Strategies For Indian Sector by Bhattacharya.B, Wheeler Publishing Co, New Delhi.
2. International Economies by D.N. Krithani.
3. International Business by Roger Bennett
4. Business Environment by C.B. Gupta
5. International Business by Francis Cherunillam

Semester III **308 – Project Management**

2 Credits **LTP: 2:0:0** **Generic Elective – University Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 308 .1	Remembering	DEFINE the key terms and concepts in project management.
CO 308 .2	Understanding	EXPLAIN the Importance of project management methodologies and tools at the distinct stages in the Project's life cycle
CO 308 .3	Applying	ILLUSTRATE the importance of PM in most industries and businesses
CO 308 .4	Analysing	EXAMINE the importance of Leadership specifically in heterogenous and virtual teams as well as governance and approaches to conflict resolutions
CO 308 .5	Evaluating	DESIGN dashboard, status report and index for Key Performance Indicators of project for the Management

1. **Overview of Project Management:** Concept of Project, Attributes of a Project, Importance of Project Management, Project Management Process, Project Lifecycle, Project Stakeholders, Project Management Structures, Choosing Appropriate Project Management Structure, Implications of Organizational Culture, Main Causes of Project Failure. Project Definition: Defining Scope, Establishing Priorities, Creating the Work Breakdown Structure (WBS), integrating the WBS with the organization, Coding the WBS for information system, Project Roll Up, Process Breakdown Structure, Responsibility Matrices. (5+1)
2. **Project Planning:** Estimating Project Times and Costs: Factors Influencing Quality of Estimates, Estimation Guidelines for Time, Costs and resources, Macro versus Micro Estimating, Methods for Estimating Project Times and Costs, Level of detail, Developing Budgets, Types of Costs, Refining estimates and contingency funds. Developing a Project Plan: Developing the Project Network, From Work Package to Network, Constructing a Project Network, Activity-on-Node Fundamentals, Network Computation process, Using the Forward and Backward pass information, Level of Detail for activities, Extended Network techniques. (5+1)
3. **Project Scheduling & Risk Management:** Scheduling Resources and Reducing Project Duration: Types of Project Constraints, Classification of Scheduling Problem, Resource Allocation Methods, Splitting, Multitasking, Benefits of scheduling resources, Assigning Project work, Multi Project resource Schedules, Rationale for reducing project duration, Options for accelerating Project Completion, Concept and construction of a Project Cost – Duration Graph, Practical considerations . Managing Risk: Risk Management process – Risk Identification, Risk Assessment, Risk Response Development, Contingency Planning, Risk Response Control, Change Control Management. (5+1)
4. **Project Organization:** The Project Manager: Role and Responsibilities of the project Manager, Planning, Organizing, Controlling, Skills of the Project Manager – Leadership Abilities, Coaching & mentoring Abilities, Communication Skills, Interpersonal Skills, Ability to Handle Stress, Problem Solving Skills, Time Management Skills, Delegation, Management of Change. Managing Project Teams: The five stage team development model, Situational factors affecting team development, Team effectiveness, Conflict in projects, Sources of Conflict, Handling Conflict. Managing Virtual Project teams, Project team pitfalls. (5+1)
5. **Project Evaluation:** Progress and Performance Management and Evaluation: Structure of a Project Monitoring Information System, Project Control Process, Monitoring Time Performance, Need for an Integrated Information System, Developing a dashboard, status report and index to monitor progress, Forecasting final project cost, Other control issues. Project Audit and Closure: Project Audit, Project Audit Process, Project Closure, Team, Team member and Project Manager Evaluations. (5+1)

Suggested Text Books:

1. Clifford Gray, Erik Larson and Gautam Desai, Project Management, The Managerial Process, Tata McGraw Hill
2. Effective Project Management, Clements and Gido, Thomson – India Edition.
3. Samuel Mantel, Jack Meredith, Scott Shafer, Margret Sutton and M.R.Gopalan, Project Management, Wiley India

4. Prasanna Chandra, Projects, Planning, Analysis, Selection, Financing, Implementation and Review, Tata McGraw Hill

Suggested Reference Books:

1. Project management Institute, The Guide to the Project Management Body of Knowledge (PMBOK Guide), PMI Publication

Semester III	**309 – Knowledge Management**
2 Credits **LTP: 2:0:0**	**Generic Elective – University Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 309 .1	Remembering	DEFINE the key terms and concepts in Knowledge Management.
CO 309 .2	Understanding	DESCRIBE the Knowledge Management cycle
CO 309 .3	Applying	DISCUSS the types of Knowledge and its implications.
CO 309 .4	Analysing	OUTLINE the importance of capturing knowledge elements and its structures application as a competitive advantage to business
CO 309 .5	Evaluating	EXPLAIN the human and business aspects of knowledge management.

1. **Introduction to Knowledge:** Meaning of data, information, knowledge and expertise, Meaning of epistemology, Types of Knowledge - Subjective & Objective views of knowledge, procedural Vs. declarative, tacit Vs. explicit, general Vs. specific, Types of expertise – associational, motor skill, theoretical, Characteristics of knowledge – explicitness, codifiability, teachability, Specificity, Reservoirs of knowledge. (5+1)
2. **KM and KM Cycle:** Why KM, KM system life cycle, and aligning KM and business strategy, KM Cycle: Knowledge creation, capturing tacit knowledge, Types of knowledge and its implications for KM Knowledge codification and system development: codification, system testing and deployment, Knowledge transfer and knowledge sharing- the role of culture and structure (5+1)
3. **KM system :** Analysis design and development: Knowledge infrastructure, Knowledge audit, and knowledge team, Analysis, design and development of KM system, KM tools and Portals: inferences from data, data mining and knowledge portals (5+1)
4. **KM Infrastructure:** Organizational Structure, Organizational Culture, Communities of Practice, Information Technology Infrastructure, Common Knowledge (5+1)
5. **Evaluation of KM effectiveness:** KM Impact: Dimensions of KM Impact – People, Processes, Products & Organizational Performance, Factors influencing impact – universalistic & contingency views, Assessment of KM Impact – Qualitative & quantitative measures, Identification of appropriate KM solutions, Ethical, legal and managerial issues, KM experiences form Indian companies, KM innovation and Learning organization, The future of KM. (5+1)

Suggested Text Books:

1. Fernandez I. B. and Sabherwal, R. (2010). Knowledge Management: System and Resources. PHI Delhi.
2. Tiwana Amrit (1999).The Knowledge Management Toolkit. Prentice Hall PTR.
3. Irma Becerra-Fernandez, Avelino Gonzalez, Rajiv Sabherwal (2004). Knowledge Management Challenges, Solutions, and Technologies, Prentice Hall. ISBN: 0-13-109931-0.
4. Elias M. Awad, Hassan M. Ghaziri (2004). Knowledge Management. Prentice Hall. ISBN: 0-13-034820-1.

Suggested Reference Books:

1. Donald Hislop, Knowledge Management in Organizations, Oxford 2nd Edition.
2. Ian Watson (2002). Applying Knowledge Management: Techniques for Building Corporate Memories. Morgan Kaufmann. ISBN: 1558607609.
3. Madanmohan Rao (2004). Knowledge Management Tools and Techniques:Practitioners and Experts Evaluate KM Solutions. Butterworth-Heinemann.ISBN: 0750678186.
4. Stuart Barnes (Ed.) (2002). Knowledge Management Systems Theory and Practice. Thomson Learning.

5. Kimiz Dalkir, Knowledge Management in Theory and Practice, Elsevier,Butterworth-Hinemann.
6. Shelda Debowski, Knowledge Management, Wiley India Edition.

Semester III		**310– Corporate Governance**
2 Credits	**LTP: 2:0:0**	**Generic Elective – University Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO310.1	REMEMBERING	RECOGNIZE and REMEMBER the scope of Corporate Governance.
CO310.2	UNDERSTANDING	UNDERSTAND the role of Board of Directors and Committees in Good Corporate Governance and key mechanism.
CO310.3	APPLYING	APPLICATION of empirical methods of Corporate Governance and its impact on the Firms.
CO310.4	ANALYSING	Analyze the legal framework of Corporate Governance and formulate Internal control policies.
CO310.5	EVALUATING	Evaluate the legal framework and global perspective of Corporate Governance.
CO310.6	CREATING	FORMULATE and DISCUSS Cases related to CG (Models), their SUCCESS & FAILURES.

1. **Conceptual Framework of Corporate Governance:** Introduction, Need and Scope Evolution of Corporate Governance, Developments in India. Corporate Governance Code and Agency Theory. Elements of Good Corporate Governance, Recent Corporate Governance Committee reports like N. R. Narayan Murthy Committee, J. J. Irani Committee etc. (5+1)
2. **Board Effectiveness & Various Board Committees:** Issues and Challenges : Board Composition; Diversity in Board Room; Types of Directors; Board's Role and Responsibilities, Chairman, CEO, Separation of Roles, Relationship between Directors and Executives, Visionary Leadership, Board Charter, Meetings and Processes, Directors' Training and Development. Performance Evaluation of Board and Directors Board Committees Various. Board Committees, their Composition, Role and Responsibilities, Contribution to Board Governance. (5+1)
3. **Corporate Governance and Other Stakeholders:** Shareholders: Rights of Shareholders, Challenges in Exercising Shareholders Rights Ownership structure & firm Performance, Legal Protection of small shareholders, Corporate Governance issues with regard to Related Party Transactions, Role of Investor Associations in Securing Shareholders Rights, Role of Institutional Investors in Corporate. Governance. Corporate Governance and Other Stakeholders: Employees, Customers, Lenders, Vendors, Government, Society. (5+1)
4. **Legislative Framework of Corporate Governance in India:** Under Listing Agreement, SEBI Guidelines, Companies Act, Corporate Governance in PSUs, Banks, Insurance Companies, Service Sector, IT Sector. Risk Management and Internal Control: Risk Management and Oversight, Enterprise Risk Management, Roles and Functions of Internal Control, Disclosure about Risk, Risk Management and Internal Control. Global Perspective of Corporate Governance: An International Perspective Australia, Singapore, South Africa, United Kingdom, Contemporary Developments in the Global Arena. (5+1)
5. **Recent Cases on Corporate Governance in India:** Corporate governance failure at Ricoh India: rebuilding lost trust, ICICI Bank- case of Chanda Kochhar, Corporate Governance at Infosys – A benchmark for Corporate Governance, Corporate Governance in India: Case Study of Satyam, Tata Group & Cyrus Mistry dispute, PNB, Kingfisher Airlines, Fortis etc. (5+1)

Suggested Text Books:

1. S. M. Dewan, Corporate governance in public sector enterprises, Pearson Longman, 2006.
2. Corporate Governance in India – An Evaluation by S C Das, PHI – Eastern Economy Edition.
3. Corporate Governance by Christine A Mallin, Oxford University Press
4. Corporate Governance – Global Concepts & Practices, Dr. S Singh, Excel Books.

Suggested Reference Books:

1. Corporate Governance, Principles, policies and Practices – A.C. Fernando, Pearson Education.
2. Corporate Governance – IICA, Taxmann.
3. The Art of Corporate Governance – Dr. Joffy George.
4. The Essential Book of Corporate Governance by G. N. Bajpai.
5. Companies Act 2013 and Rules.
6. SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015
7. Case Studies on Ethics and Corporate Governance Vol I and II, ICFAI Books.

Semester III		**311–Management of Non-profit organizations**
2 Credits	**LTP: 2:0:0**	**Generic Elective – University Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO311.1	REMEMBERING	DESCRIBE the basic concepts and frameworks in the field of Non-Profit Sector & Non-Profit Organization.
CO311.2	UNDERSTANDING	EXPLAIN the characteristics of Non-Profit organizations, summarizing the factors affecting development of Non-Profit organization.
CO311.3	APPLYING	MAKE use of theoretical concepts, frameworks while registration process of Non-Profit Organization.
CO311.4	ANALYSING	EXAMINE the role of any public policies which helps NPO in decision making.
CO311.5	EVALUATING	EVALUATE the performance of Non- Profit organizations, the critical financial considerations of the Non - Profit organization.

1. **Fundamentals of Non-profit organization:** Introduction of Non- Profit Sector & Non- Profit Organizations, Define the Non- Profit Organization and describe its dimensions. Key concepts in Non-Profit management including board of governance, staffing, regulation, and volunteer management. Concept of Non-Profit leadership and governance and the functions of boards in organizational governance, the Board's Role and Responsibilities. Roles of board members in Non-Profit organizations, responsibilities of Non-Profit Organizations. Elements of board behaviour for effectiveness of organization. Developing Leadership and Improving Governance in Non-Profit Organizations, Improving the Effectiveness of Boards of Directors and the tools used to facilitate assessments of board performance. (5+1)
2. **Basics of Non-Profit Organization:** Difference between For-Profit and Non-Profit organizations, Characteristics of Non-profit Organizations. Factors affecting development of Non-Profit organizations, Challenges of managing a Non-Profit organizations, Factors responsible for success of Non-Profit organizations, Skills and abilities of the leaders of Non-profit organizations, vision, mission, values and goals of Non-Profit organizations. (5+1)
3. **Registration and Formation of Non-Profit Organization:** Nature, objectives, legal procedures, formalities and documentations required for registration. Different types of Non-Profit Organizations: NGOs, Trust and Society, its significance, differences and relationships. Overview of Societies Registration Act, Indian Trust Act, Indian Companies Act, Charitable Endowment Act, Memorandum of Association, Rules and Bye-laws of Non-Profit Organizations, Tax Benefits and Exemptions under different acts. (5+1)
4. **Managing Non-Profit Organizations:** Role of executives in building effective and sustainable organizations, Standards and code of conduct appropriate to professionals in the sector, Accountability and "managing the mission", Volunteerism, conflicts of interest in various situations. Roles of Non-Profit organizations in the public policy framing process, Examples of Key public policies, Ethical issues, in management of NPOs, developing a sustainable business model based on the social need. (5+1)
5. **Performance of Non-Profit Organization:** Evaluating the performance of Non-profit Organizations, Ethical Decision making in Non Profit Organizations, Volunteers and their role in Non Profit organizations. Incentives and

control in the non-profit context. Non-profit governance, Non-profit organizations and market competition, sales promotion and Public Relations for Non- profit Organization. Managing Financial Resource, Donor Marketing. (5+1)

Suggested Text Books:

1. Non-Profit Management: Principles and Practice…(Paperback) by Michael J. Worth
2. How to Start, Run & Grow a Successful Non- Profit organization by Aaron Sanders
3. Non-Profit organizations: Theory, management, policy by Helmut k. Anheier
4. Developing Non-Profit and Human Service Leaders: Essential Knowledge and Skills, Watson, Larry D., Hoefer, Richard, 2014
5. Kumar, R., Goel, S. L. (2005). Administration and Management of NGOs: Text and Case Studies. Deep and Deep Publications

Suggested Reference Books:

1. Banerjee, G. D. (2012). NGOs: Issues in Governance- Accountability Policies 7 Principles. Neha Publishers & Distributors
2. David Lewis (2014). Non-Governmental Organizations, Management and Development. Routledge Publication.
3. NGOs AND SOCIAL WELFARE: New Research Approaches David Lewis and N. Avichandran (Eds.)
4. Marketing of Non-Profit Organizations by Philip Kotler
5. Elements of Mercantile Law, N.D.Kapoor

Semester IV		**405 – Global Strategic Management**
2 Credits	**LTP: 2:0:0**	**Generic Elective – University Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO405.1	Remembering	Define the concept and key terms associated with the global strategic management.
CO405.2	Understanding	Describe in detail global strategic alliance, merger and acquisitions.
CO405.3	Applying	Demonstrate various global organisation models in global strategic management context.
CO405.4	Analyzing	Examine various entry and business-level strategies from global strategic management prospective.
CO405.5	Evaluating	Explain globalization, innovation, and sustainability and challenges to strategic management.
CO405.6	Creating	Design global strategies and understand their relative merits and demerits.

1. **Introduction:** The phenomenon of Globalisation Localisation and Glocalization, Factors that push globalisation, The benefits of globalisation, factors that work against globalisation, The localisation pushes, The benefits of localisation and Globalisation, The Global Integration/Local Responsiveness Grid. Strategy making strategy implementing and strategic managing; Globalization and strategic management; Strategic flexibility and learning organization. Competitive strategy and competitive advantage in global market. Assessing Countries' Attractiveness: Country attractive Market and industry opportunities, Assessing industry opportunities, Country risk analysis. (5+1)
2. **Market Intelligence and Designing a Global Strategy :** Market Intelligence: Drivers and Benefits, Key Success Factors of World Class Market Intelligence, Intelligence Scope, Intelligence Process, Intelligence Tools – Collecting, Storing, and Communicating Intelligence. Designing a Global Strategy: Entry strategies, Direct Exporting, Licensing, Partnering, Joint Ventures, Buying an organization, Piggybacking, Turnkey Projects,

Greenfield Investments. Increased Market Size, Return on Investment, Economies of Scale and Learning, Location Advantages. (5+1)

3. **Global Strategic Alliances and Resources and Business-Level Strategy:** Strategic Alliances: Global versus local alliances, typology and framework, Value potential, Partner analysis, Negotiation and design, Implementation of alliance management, Global multilateral alliances, Alliance constellation management, Criteria for successful alliances. Global Mergers and Acquisitions: The rationale for cross-border M&As, Cross-border acquisitions performance, Deciding on the M&A, Integrating the companies: the integration phase, Integrating the companies: the transition phase, Integrating the companies: the consolidation phase (Case studies of global strategic alliances and global mergers and acquisitions are expected). (5+1)

4. **Designing a Global Organisation:** Structure, processes and culture, global functional model, geographical model, single matrix model, multi-business global product division model, multi-business geographical model, multi-business matrix model, Hybrid structural models, transnational model. (5+1)

5. **Globalization, Innovation, and Sustainability:** Challenges to Strategic Management: Impact of Globalization, Innovation, Sustainability, Theories of Organizational Adaptation, Creating a Learning Organization, Environmental Scanning, Strategy Formulation Strategy Implementation, Evaluation and Control, Feedback/Learning Process, Resources, Capabilities, and Core Competencies, Building Core Competencies, Four Criteria of Sustainable Competitive Advantage. Issues in global strategy implementation; strategy evaluation and control. (5+1)

Suggested Text Books:

1. Lasserre, Philippe, Global Strategic Management (4th Edition), Palgrave Macmillan, Bristol, Great Britain, 2003.
2. Michael Hitt, Duane Ireland and Robert Hoskisson, Concepts Strategic Management Competitiveness & Globalization (9th Edition), South-Western Cengage Learning Mason, USA, 2011.
3. Hans Hedin, Irmeli Hirvensalo, Markko Vaarnas, The Handbook of Market Intelligence Understand, Compete and Grow in Global Markets, John Wiley & Sons Ltd, West Sussex, United Kingdom, 2011.
4. Lorange, P. and J. Roos, Strategic Alliances: Formulation, Implementation, and Evolution, Blackwell, Oxford.
5. Gerardo R. Ungson and Yim-Yu Wong, Global Strategic
6. Management, Segment Books New Delhi, 2009.
7. Global Strategic Management, Kamel Mellahi, J. George Frynas, and Paul Finlay, Oxford University Press, New York, 2005.
8. Globalization and Business, Johnd Daniels, Leeh. Radebaugh, and Daniel P. Sullivan, Prentice Hall of India Private Limited, New Delhi, 2002.

Suggested Reference Books:

1. Thomas Wheelen and David Hunger, Strategic Management and Business Policy - Toward Global Sustainability (13th Edition), Pearson Education, New Jersey, USA, 2012
2. Thomas Wheelen, David Hunger, Alan Hoffman and Charles Bamford, Strategic Management and Business Policy Globalization, Innovation, and Sustainability (14th Edition) Pearson Education Limited, Essex, England, 2015
3. Davidson, W.H., Global Strategic Management, John Wiley, New York.
4. Eayerweather, W.H. International Business Strategy and Administration Ballinger Publishers, Cambridge Mass.
5. Hitt, Michael A., R.Duane Ireland and Robert E. Hokisson, Strategic Management: Competitiveness and Globalization, 4th Ed, South Western College Publishing, Australia, 2001.

Semester IV		**406 – Technology Competition and Strategy**
2 Credits	**LTP: 2:0:0**	**Generic Elective – University Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO408.1	Remembering	DEFINE the key terms and concepts.
CO408.2	Understanding	EXPLAIN how technology affects strategic interactions among firms and consumers
CO408.3	Applying	DETERMINE the linkages Technology & Business Strategies
CO408.4	Analyzing	EXAMINE the technology environment of a firm.
CO408.5	Evaluating	APPRAISE the risks pertaining to technology and competition.

1. **Technology & Competition:** Competitive Domains, Competitive Consequences of Technological Change – Creation of New Products, Changes in the Value Chain, Changes in the Value Constellation, Competitive Rivalry. Technological Characteristics of Competitive Domains – Technological Opportunity, Appropriability, Resource Requirements, Collateral Assets, Institutional Milieu, Speed. Dynamics of Change in the Competitive Domain – Technology Emergence Phase, Incremental Change Phase. Framework for Analysis of Technology Emergence, Influence of Environmental trends on competition. Technology as critical to Business Outcomes – Technology Strategy and Technology Leadership. (5+1)
2. **Technology Intelligence:** Signals of New Technology, What is Technology Intelligence, Importance of Technology Intelligence, Levels of Technology Intelligence, External versus Internal Technology Intelligence. Mapping the Technology Environment – Steps in Mapping, Mapping the Macro-level and Industry Level Environment. Mechanisms for Data Collection – Challenges, Organizational Arrangements and Key Principles for Data Collection. Contemporary Challenges in Mapping the Technology Environment. (5+1)
3. **Business Strategy and Technology Strategy:** Business Strategy , Strategic Analysis and Decision Making using Product Evaluation Matrix, Market-Growth- Market-Share Analysis Matrix, X-Y Coordinating Method, M-by-N Matrix, SWOT Matrix, Formulation of Technology Strategy, Core Competencies, Exploitation of Core Competencies, Integration, Linking Technology & Business Strategies, Creating the Product-Technology-Business Connection. Technology's Interface with – Market, Customers and Suppliers. Customer-Supplier and Product-User relationships. (5+1)
4. **Technology Strategy Choice:** Technology – Business Connection, Domains of Technology Choice, Linkages between Technology Choice and Competitive Advantage, Technology Strategy Definition, Role of Chief Technology Officer, Key principles underlying Technology Strategy – Objectives, Drivers, Decision criteria. Technology Strategy Types – Appropriateness of the Technology Strategy Types, Diversified Firms, A Framework for formulating Technology Strategy – Strategic Diagnosis, Formulation of Technology Strategy, Crafting and Implementation Approach, Execution. Technology Strategy – Superior Performance Characteristics. Accountability to various Stakeholders, Performance Measurement. (5+1)
5. **Technology Strategy – Collaborative Mode:** Collaborative Arrangements – Definitions, Trends, R&D Alliances, Marketing Alliances, Outsourcing Alliances, Collaboration between small and large firms, Strategic and Operational Reasons for Collaborative Arrangements. Collaborative Arrangements in the domain of Technology Strategy – Appropriation of technology, Deployment of technology in New Products, Deployment of technology in the Value Chain, Marketing of technology. Risks of Collaborative Activity – Intellectual Property Right Risk, Competitive Risk, Organizational Risk. Cases on R & D Collaborations, Global Technology Alliances. The form of Collaborative Arrangement. (5+1)

Suggested Text Books:

1. Managing Technology and Innovation for Competitive Advantage, V K Narayanan, Pearson Education.
2. Technology Management – Text and International Cases, Norma Harrison and Danny Samson, MGH.
3. Strategic Management of Technology & Innovation, Robert A Burgelman,Modesto A Maidique, Steven C Wheelwright, MGH International Edition.

4. Management of Technology – The Key to Competitiveness and Wealth Creation, Tarek Khalil and Ravi Shankar, TMGH, New Delhi.
5. Technology & Business Strategy – An Introduction, Edited by Prashanta Kumar Banerjea, ICFAI books.

Suggested Reference Books:

1. Managing Strategic Innovation and Change – A Collection of Readings, Michael L Tushman and Philip Anderson, Oxford University Press.
2. Management of Technology and Innovation – Competing through Technological Excellence, P N Rastogi, Response Books.
3. Utterback, James. "Invasion of a Stable Business by Radical Innovation." Chapter 7 in Mastering the Dynamics of Innovation. Cambridge, MA: Harvard Business School Press, 1994. ISBN: 9780875843421.

Semester IV		**407 – Cyber Laws**
2 Credits	**LTP: 2:0:0**	**Generic Elective – University Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO407.1	Remembering	DEFINE the key terms and concepts pertaining to cyber laws.
CO407.2	Understanding	DESCRIBE the relevant legal provisions in detail.
CO407.3	Applying	DETERMINE the applicability of the legal provisions in a specific scenario.
CO407.4	Analyzing	OUTLINE the course of action in case of violation of the legal provisions.
CO407.5	Evaluating	EXPLAIN the various legal, social and international issues and the various remedies available under the Information Technology Act for the breach and commission of offence in cyber space

1. **Information Technology Act:** Evolution of the IT Act, Genesis and Necessity, Salient features of the IT Act, 2000; various authorities under IT Act and their powers; Penalties & Offences, amendments, Cyber Space Jurisdiction, Jurisdiction issues under IT Act, 2000. (5+1)
2. **E-commerce and Laws in India:** Digital/ Electronic Signature in Indian Laws, E-Commerce; Issues and provisions in Indian Law, E-Governance; concept and practicality in India, E-Taxation issues in Cyberspace, E-Contracts and its validity in India, Cyber Tribunal & Appellate Tribunal, Cyber Regulations. (5+1)
3. **Intellectual Property Rights:** Domain Names and Trademark Disputes, Concept of Trademark/ in Internet Era, Cyber squatting, Reverse Hijacking, Jurisdiction in Trademark Disputes, Copyright in the Digital Medium, Copyright in Computer Programmes, Copyright and WIPO Treaties, Concept of Patent Right, Relevant Provisions of Patent Act 1970. (5+1)
4. **Personal Data Security:** Sensitive Personal Data or Information (SPDI) in Cyber Law, SPDI Definition and Reasonable Security Practices in India, Reasonable Security Practices – International perspective, Cloud Computing & Law. (5+1)
5. **Cyber Law:** International Perspective, EDI : Concept and legal Issues, UNCITRAL Model Law, Electronic Signature Law's of Major Countries, Cryptography Laws, Cyber Law's of Major Countries, EU Convention on Cyber Crime. (5+1)

Suggested Text Books:

1. Cyber Law & Cyber Crimes by Advocate Prashant Mali, Snow White Publications, Mumbai
2. Cyber Law in India by Farooq Ahmad, Pioneer Books
3. Information Technology Law and Practice by Vakul Sharma, Universal Law Publishing Co. Pvt. Ltd
4. The Indian Cyber Law by Suresh T. Vishwanathan, Bharat Law House New Delhi

5. Guide to Cyber and E- Commerce Laws by P.M. Bukshi and R.K. Suri, Bharat Law House, New Delhi
6. Guide to Cyber Laws by Rodney D. Ryder, Wadhwa and Company, Nagpur

Suggested Reference Books:

1. The Information technology Act, 2000, Bare Act- Professional Book Publishers, New Delhi
2. Computer Forensics: Principles and Practices by Linda Volonino, Reynaldo Anzaldua and Jana Godwin; Pearson Prentice-Hall
3. First Responder's Guide to Computer Forensics by Richard Nolan et al; Carnegi Mellon

Semester IV		**408 – Corporate Social Responsibility & Sustainability**
2 Credits	**LTP: 2:0:0**	**Generic Elective – University Level**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO408.1	Remembering	DESCRIBE What is CSR, Scope & Complexity, Companies Act 2013,when was CSR Initiated, Evolution, How CSR matters, Aims, objectives, Importance, Benefits of CSR,CSR in India ,CSR In global Context, Implementation .
CO408.2	Understanding	EXPLAIN the implications of CSR from the perspectives of employees, managers, leaders, organization and the Community.
CO408.3	Applying	MAKE USE OF the Theories and Principles and Frameworks of CSR in specific organizational settings.
CO408.4	Analyzing	DECONSTRUCT The Role of Companies towards the society and its impact on the community.
CO408.5	Evaluating	FORMULATE The companies how they are practicing CSR activities, Auditing the committees & Board of Committees, CSR Annual Reports.
CO408.6	Creating	ELABORATE UPON the challenges of the Companies in shaping organizational culture and Development of the society.

1. The Companies Act 2013 Sec 135 & Schedule VII , Committee , Board of Committee, Role of the committees. CSR Annual Report, CSR Sustainability Report, meaning and importance of Corporate Social Responsibility, Evolution of CSR,Benefits of CSR. Primaries of CSR, CSR and law of e economics, CSR and social legitimacy,CSR Expectations in rich and poor societies, The evolving role of stakeholders, Moral and economic arguments for CSR. (5+1)
2. The Role of stakeholders in CSR, Stakeholders advocacy, The role of business in society, Consumers awareness and willingness to pay for socially responsible corporate, Behavior, Globalization and CSR. Different stakeholder's different perspective for CSR, Success and failure with CSR initiatives, corporate response to citizen demands via CSR, The five stages of organizational growth with CSR. (5+1)
3. The strategic importance of CSR implementation, CSR a balance between organizational means and end, The strategic lens, vision, mission ,strategy and tactics. Environmental and other global forces propelling CSR,Impact of globalization and communication technologies, The strategic CSR model, The business level CSR threshold, Implementing CSR,CSR as a competitive advantage (5+1)
4. Practical Work, Case studies in organizational, Economic and Social CSR issues, Linking CSR Companies community, Organizational issues, action vs. intentions corporate commitment, voluntary Vs. mandatory stakeholders activism, Economic business issues- diversifying sustainability. (5+1)
5. Branding Strategy of CSR in Service Sectors – Financial, Hospital, Wellness, Health Care, NGOs and Public Services, CSR and Marketing, CSR as Organizational Brand Building, Identify the Indian & Global Companies Practicing CSR. Company's contribution in CSR and the community benefits(5+1)

Suggested Text Books:

1. Corporate Social Responsibility, Madhumita Chatterjee
2. CSR in India (Steering Business and Social Change) 1st Edition by Kshama V Kaushik, Lexis Nexis

3. Corporate Social Responsibility Concept cases & Trends by Prabhakaran Paleri, Cengage Learning

Suggested Reference Books:

1. Six Essential Steps in Implementing CSR (2016) By V Reddappa Reddy and C Dheeraja.
2. The Corporate Social Responsibility in India (Cases & Development after Legal Mandate) by Dr.Rene Schumpeter

SEMESTER III SC AND SE IL COURSES

Semester III	**304 PRJ**	**304 PRJ-03 - Project Estimating, Cost and Risk Management**
3 Credits	**LTP: 2:1:0**	**Subject Core (SC) Course – Project Management**

CO#	**COGNITIVE ABILITIES**	**COURSE OUTCOMES**
CO304 PRJ.1	REMEMBERING	DEFINE the basic terms associated with Estimation Models.
CO304 PRJ.2	UNDERSTANDING	UNDERSTAND the Progress Monitoring and Cost Management.
CO304 PRJ.3	APPLYING	ESTIMATE projects, its specifications, contracts, bidding and various costs.
CO304 PRJ.4	ANALYSING	ANALYZE Project risks. Qualitative, semi quantitative project risk assessments.
CO304 PRJ.5	CREATING	EVALUATE Capital Evaluation of Large Projects.

1. **Estimating Models:**

Accuracy, Parametric Estimating, Modular Estimating, Parametric Model, Analogous Estimating - Ratio Estimating, The Three-Quarters Rule, The Square Root Rule, The Two-Thirds Rule, Range Estimating, Expert Judgment, Normalization (8+1)

2. **Progress Monitoring:**

Developing a Monitoring Plan, Elements of Monitoring, Earned Value, Productivity **Cost Management:** Causes of Change, Feed-Forward Technique, Impact of Schedule on Cost, Lifecycle Costs, Impact of Project Risk. (8+1)

3. **External Projects:**

Specifications, Contracts, Response to Specifications, Bidding, Project Costs, Direct Costs, Indirect Costs, Overhead, Allowance, Contingency, Project Audits(8+1)

4. **Project risk management Basics:**

The project risk management approach, Establish the context, Risk identification, Qualitative risk assessment ,Semi-quantitative risk assessment, Risk treatment, Monitoring and review, Communication and reporting, Project processes and plans, Simplifying the process, Managing opportunities, Other approaches to project risk management. (8+1)

5. **Extending the Basic Process:**

Tender evaluation, contracts and risk allocation, Market testing and outsourcing, Public–private partnerships, private financing Technical tools and techniques, Introduction to environmental risk management. **Quantification of Project Risks** : Introduction to quantification for project risks, Capital evaluation for large resource projects(8+1)

Suggested Text Books

5. Project Estimating and Cost Management Parviz F Rad by Management Concepts, Inc.
6. Project Risk Management Guidelines Dale F. Cooper, Stephen Grey, Geoffrey Raymond and Phil Walker by John Wiley & Sons, Ltd.

Suggested Reference Books

1. Fundamentals of Risk Management: Understanding, evaluating and implementing effective risk. Paul Hopkin by Kogan Page Limited.
2. Project Management Toolbox Russ J. Martinelli by Wiley.

Suggested Audio /Visual Content

Project Management Fundamentals: Risk Management | Udemy

Project Cost and Estimation Techniques | Udemy

Journals

Vodafone: Using PMI standards to deliver a complex technology project | PMI
Project Review & Recovery: Manufacturer Slashes HR Costs (pmsolutions.com)
Agile And Earned Value | APM
Decommissioning Forecasting and Operating Cost Estimation - 1st Edition (elsevier.com)https://journals.sagepub.com/home/pmx
Occupancy Estimation and Modeling - 1st Edition (elsevier.com)

Websites

https://www.pmi.org.in/
https://www.apm.org.uk/

Suggested Swayam Course

1. http://www.digimat.in/nptel/courses/video/110107081/L52.html
2. https://www.managementconcepts.com/course/id/6111

Semester III	**305 PRJ**	**305 PRJ-04 - Project Management, Execution and Monitoring**
3 Credits	**LTP: 2:1:0**	**Subject Core (SC) Course – Project Management**

CO#	**COGNITIVE ABILITIES**	**COURSE OUTCOMES**
CO305 PRJ.1	REMEMBERING	DEFINE the basic terms associated with execution of project.
CO305 PRJ.2	UNDERSTANDING	UNDERSTAND the progress of monitoring the project.
CO305 PRJ.3	APPLYING	ESTIMATE inputs and output for monitoring and controlling project
CO305PRJ.4	ANALYSING	ANALYZE use of tools and techniques for managing communication
CO305 PRJ.5	CREATING	EVALUATE the triple constraint for real time projects.

1. **Executing a Project:**

Directing and Managing Project Work, Input to Directing and Managing Project Work, Tools and Techniques for Directing and Managing Project Work, Output of Directing and Managing Project Work, Managing Project Knowledge, Input to Manage Project Knowledge, Tools and Techniques for Managing Project Knowledge, Output of Managing Project Knowledge, Managing Quality, Tools and Techniques for Performing Quality Management, Output of Performing Quality Management, Conducting Procurements, Tools and Techniques for Conducting Procurements, Output of Conducting Procurements

2. **Project Resources:**

Resource Management: Acquiring Project Resources, Selecting and Assigning Resources, Tools and Techniques for Acquiring and Selecting Project Resources, Developing the Project Team, Managing the Project Team, Tools and Techniques for Managing the Project Team, Output of Managing the Project Team, Motivating Your Team

3. **Managing Communication and Stakeholder Engagement**:

Manage Communication, Tools and Techniques for Managing Communication, Mechanisms of Communication and Dimensions of Communication Activities, Output of Manage Communication, Managing Stakeholder Engagement

4. **Monitoring and Controlling the Project:**

Monitoring and Controlling Project Work, Input to Monitor and Control Project Work, Tools and Techniques for Monitor and Control Project Work, Output of Monitor and Control Project Work, Performing Integrated Change Control, Input to Integrated Change Control, Tools and Techniques for Integrated Change Control, Output from Integrated Change Control, Controlling Quality, Tools and Techniques for Quality Control, Output of Quality Control, Monitoring Risks, Control Procurements

5. **Controlling Scope, Schedule, and Resources:**

Controlling Scope, Controlling the Schedule, Performing the Control Schedule Process, Controlling Project Resources, Controlling Cost, Scope, Schedule, and Cost: The Triple Constraint, Monitoring Stakeholder Engagement, Monitor Communication, Performing the Monitor Communication Process

Suggested Text Books

1. Project Estimating and Cost Management Parviz F Rad by Management Concepts, Inc.
2. Project Risk Management Guidelines Dale F. Cooper, Stephen Grey, Geoffrey Raymond and Phil Walker by John Wiley & Sons, Ltd.

Suggested Reference Books

1. Fundamentals of Risk Management: Understanding, evaluating and implementing effective risk. Paul Hopkin by Kogan Page Limited.
2. Project Management Toolbox Russ J. Martinelli by Wiley.

Suggested Audio /Visual Content

Project Management Fundamentals: Risk Management | Udemy
Project Cost and Estimation Techniques | Udemy

Journals

Project Review & Recovery: Manufacturer Slashes HR Costs (pmsolutions.com)
Agile And Earned Value | APM
Vodafone: Using PMI standards to deliver a complex technology project | PMI
Decommissioning Forecasting and Operating Cost Estimation - 1st Edition (elsevier.com)https://journals.sagepub.com/home/pmx
Occupancy Estimation and Modeling - 1st Edition (elsevier.com)

Websites

https://www.pmi.org.in/
https://www.apm.org.uk/

Suggested Swayam Course

https://nptel.ac.in/courses/110/104/110104073/

Semester III	**312 PRJ**	**312 PRJ SE-IL-PRJ-11 IT, ITeS Service Project Management**
2 Credits	**LTP: 2:0:0**	**Subject Elective (SE-IL) Course – Project Management**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO312 PRJ .1	REMEMBERING	DEFINE various concepts related to project Management
CO312 PRJ .2	UNDERSTANDING	UNDERSTAND the perspective of project idea generation and selection
CO312 PRJ .3	APPLYING	APPLY various techniques of project planning
CO312 PRJ .4	ANALYSING	ANALYSE project feasibility from different angles
CO312 PRJ .5	CREATING	EVALUATE project ideas

1. **Foundation of IT Project Management:**

Meaning of Project& Project Management: Examples of Information Technology Projects, The Role of the Project Manager, Benefits of IT management software's, The Project Life Cycle and IT Development. **The Project Management and Information Technology Context:** A Systems View of Project Management, Project Phases and the Project Life Cycle, The Context of Information Technology Projects: The Nature of Information Technology Projects, Characteristics of Information Technology Project Team Members, Diverse Technologies. (5+1)

2. **Managing IT projects: Project Integration Management**: Meaning, Project Selection and Approval, developing a Project Charter&Project Management Plan, Directing and Managing Project Work, Performing Integrated Change Control on IT Projects., Using Software to Assist in Project Integration Management **Project Human Resource Management:** Meaning &Importance, Managing and Leading People, Developing the Human Resource Plan, Acquiring, Developing & Managing Project team. Using Software to Assist in Human Resource Management. (5+1)

3. **Managing Project Scope:** Meaning, Scope Planning, Define Project Scope, Creating the Work Breakdown Structure, Validating & Controlling, Using Software to Assist in Project Scope Management. **Time & Cost Management:** Meaning &Importance, Schedule Management, sequencing activities, Developing the Schedule (Gantt Charts, CPM), Basic Principles of Cost Management, Estimating Costs, Determining the Budget, Controlling Costs. Using Software to Assist in Project Time Management& Project Cost Management (5+1)

4. **Project Risk Management & Communication Management**: Communication Management: Meaning & Importance, Manging, Controlling & Improving Project Communication, Using Software to Assist in Project Communications, Risk Management: Risk Identification, Assessment, and Planning, Identifying IT Project Risks, Risk Strategies, Risk Monitoring and Control, Using Software to Assist in Project Risk Management(5+1)

5. **Project Procurement Management& Stakeholder Management:**

Procurement Management: Importance & Planning, Conducting, Controlling & Closing, Using Software to Assist in Project Procurement Management. **Project Stakeholder Management**: Meaning & Importance, Identification, Planning, Managing & Controlling Stakeholders engagement. Using Software to Assist in Project Stakeholder Management.

Quality Management: Tools and Techniques for Quality Control, Quality Systems (ISO, Six Sigma, CMMI), Modern Quality Management, Improving It Project Quality, Using Software to Assist in Project Quality Management **Project Implementation and Evaluation**: Project Procurement Management, Outsourcing, Project Implementation Methods, Project Evaluation. (5+1)

Suggested Text Books

1. Information Technology Project Management, Revised 8th Edition, Kathy Schwalbe, Cengage Learning, 2015.
2. Levy, F. K. and Wiest, J. D., A Management Guide to PERT/CPM, Prentice Hall, 1969, ISBN-10: 0135485118 | ISBN-13: 9780135485118.
3. Joseph Phillips, IT Project Management –On Track From Start to Finish, Tata Mc Graw-Hill, ISBN13: 978-0-07106727-0, ISBN-10: 0-07-106727-2.

Suggested Reference Books

4. Project Management the Managerial Process 5 th Edition, Erik W Larson, Clifford F Grey, TATA Mc GRAW HILL
5. Project Managers Book of Tools and techniques, Cynthia Synder Dionisio WILLY publication
6. Effective Project Management Robert K Wysocki, WILLY publication
7. Visualizing the project Management, WILLY publication

Journals

Project Management Journal, PMI
Journal of Modern Project Management (www.journalmocernpm.com)

Websites
http://www.kathyschwalbe.com/
IT Project Management: The Ultimate Guide - ProjectManager.com

Semester II	313 PRJ	313 PRJ - Infrastructural Project Management
2 Credits	**LTP: 2:0:0**	**Subject Elective (SE-IL) Course – Project Management**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO313 PRJ .1	REMEMBERING	Understand the definition and concepts of infrastructural project management including the approaches for estimating costs
CO313 PRJ .2	UNDERSTANDING	Explain infrastructural projects and its management, life cycle and project formulation
CO313 PRJ .3	APPLYING	Optimize resources of infrastructural projects using scheduling, fast tracking and re-estimation techniques
CO313 PRJ .4	ANALYSING	Analyze and Manage time in infrastructural projects through tools and techniques
CO313 PRJ .5	EVALUATING	Estimate, update and monitor infrastructural Projects
CO313 PRJ .6	CREATING	Create model for infrastructural Project and develop benchmarking infrastructural Project

1. **PROJECT MANAGEMENT:**
AN OVERVIEW: Introduction, Project Management process, Project Management techniques, Relationship to other management disciplines, Related endeavors, Concentric project management, Project formulation and development. (4+1)
2. **PROJECT PLANNING AND TIME MANAGEMENT**:
Purpose, Project scheduling, activity definition, activity sequencing, activity duration estimating, schedule development, schedule control, project management using CPM\PERT- Network basics, Network development, PERT analysis, advantages. Computerized network analysis- features of PM software, capabilities of PM software, multi project analysis: (4+1)
3. **ORGANIZING FOR PROJECT MANAGEMENT**:
Project Management – modern trends - Strategic Planning - Effects of Project Risks on Organization - Organization of Project Participants -Traditional Designer-Constructor Sequence - Professional Construction Management - Owner-Builder Operation - Turnkey Operation - Leadership and Motivation for the Project Team. (4+1)
4. **RESOURCE PLANNING:**
Introduction, Inputs, Tools, Outputs, Resource scheduling, Resource leveling, Resource restrained scheduling, strategies for shortening the schedule Assigning resources: Work, duration, resources, Effort driven scheduling, create a resource list, Exercise on resource planning using software, Level now command, leveling Gantt chart, assigning rate to resources, techniques of duration cost trade-off. (4+1)
5. **COST ESTIMATION:**
Costs Associated with Constructed Facilities - Approaches to Cost Estimation - Type of Construction Cost Estimates - Effects of Scale on Construction Cost - Unit Cost Method of Estimation - Methods for Allocation of Joint Costs - Historical Cost Data - Cost Indices - Applications of Cost Indices to Estimating - Estimate Based on Engineer's List of Quantities - Estimation of Operating Costs.(4+1)

Suggested Text Books:

1. Harold Kerzner – Project Management – systems approach to planning, scheduling & controlling –
a. 7th edition, John wiley & sons, Canada.
2. Microsoft Project for Windows 2000 –Microsoft Press, USA 2000.
3. Tim Pyron – Microsoft Project 2000 in 24 hours – Sama Teach ypurself series- Techmedia Published New
4. Delhi.
5. Chitkara, - K.K. "Construction Project Management: Planning, Scheduling and Control", Tata McGraw-Hill
6. Publishing Company, New Delhi, 1998.
7. Choudhury S , "Project Management", McGraw-Hill Publishing Company, New Delhi, 1988.
8. Chris Hendrickson and Tung Au, "Project Management for Construction – Fundamental Concepts forOwners, Engineers, Architects and Builders", Prentice Hall, Pittsburgh, 2000.
9. Major Infrastructure Projects: Planning for Deliveryby Andrew Price, David L. Moore, and Edward Ochieng

Suggested Reference Books :

1. Frederick E. Gould,"Construction Project Management",Wentworth Institute of Technology, Vary E. Joyce, Massachusetts Institute of Technology, 2000.
2. George J.Ritz , "Total Construction Project Management" - McGraw-Hill Inc, 1994.
3. Chandra, P., Projects, Tata McGraw-Hill Education, 2009, ISBN: 0070077932 | ISBN: 978007007793
4. Levy, F. K. and Wiest, J. D., A Management Guide to PERT/CPM, Prentice Hall, 1969, ISBN-10: 0135485118 |
5. ISBN-13: 9780135485118.
6. Lewis, R., Project Management, McGraw-Hill, 2006, ISBN 0-07-147160-X.
7. Moder, J. J. and Phillips, C. R., Project Management With CPM, PERT and Precedence Diagramming, Van Nostrand Reinhold,1983, ISBN-10: 0442254156 | ISBN-13: 978-0442254155.
8. Morris, P. W. G., and Pinto, J. K., The Wiley Guide to Managing Projects, 2004, JohnWiley & Sons, ISBN:
9. 9780471233022.
10. Phillips, J., PMP Project Management Professional Study Guide, McGraw-Hill, 2003. ISBN 0-07-223062-2.
11. Pritsker, A. A. B., Modeling and analysis using Q-GERT networks, John Wiley & Sons Inc, 1979, ISBN:
12. 0470266481 | ISBN: 9780470266489.

Suggested Journals:
https://journals.sagepub.com/home/pmx
https://www.journals.elsevier.com/international-journal-of-project-management
https://publons.com › journal › journal-of-construction
https://www.sciencedirect.com/journal/international-journal-of-project-management/vol/35/issue/6

Suggested Swayam Course:
https://onlinecourses.nptel.ac.in/noc21_mg71/preview
https://onlinecourses.nptel.ac.in/noc21_mg66/y

Semester III	**314 PRJ**	**314 PRJ SE-IL-PRJ-13 Social Projects**
2 Credits	**LTP: 2:0:0**	**Subject Elective (SE-IL) Course – Project Management**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO314 PRJ .1	REMEMBERING	DESCRIBE the core concepts in virtual and social project management.
CO314 PRJ .2	UNDERSTANDING	UNDERSTAND the relevance of social project management

CO314 PRJ .3	APPLYING	IDENTIFY the challenges in managing social projects.
CO314 PRJ .4	ANALYSING	ANALYZE the issues related to completion, effectiveness and efficiency of a social project.
CO314 PRJ .5	CREATING	CREATE and apply a model of Social Project Model related to various Industry Sectors.

1. **Introduction to Social Project Management :** Meaning, Importance, Need, Advantages, How it started, Applicability, Scenario before 2008 and after 2008.Emergence of Project Management 2.0, Difference between Social Project Management and Traditional Project Management, Leadership, Role of Social Networking, Role, impact, challenges and limitations of Social Project Manager. Hurdles in implementation. Limitations of Social Project Management. (5+1)

2. **Social Project Management Platform:** Project Engagement Platform, social media tools, Social Computing, Role of free Lancers, Agencies and NGOs, social media marketing campaigns, Understanding the Project Cycle – Objectives, Planning, Project Collaboration – Tools, Group Communication Tools, Emerging issues in social projects, **Social Tools and Technologies:** Various Types of Social Tools and Technologies, Ways of Adoption, Types, Adoption by various Industries, How Social Project Management helps productivity (5+1)

3. **Social Computing :**Meaning, Need, Scope, Characteristics, Paradigms, New forms of Enterprise Organizations, Models, Role of Social Technology, Support by Social Technology. New Management Approach, Social Business, Social Network, Enterprise 2.0 and Social Enterprise, Social Business Applications, **Knowledge Management:** Concept, Challenges, Requirements, KM as business Practice (5+1)

4. **Governance and Audit of Social Projects**: Role of Government in Social Projects, Role of NGOs in Governance, Legal Norms of Social Project Management. Social Audit. (5+1)

5. **Study and Analyse Case Studies:**Bill Gates Foundation, Paani Foundation, Tata Group, Socio – Economic Projects (5+1)

Suggested Text Books

1. Corporate Impact: Measuring and Managing Your Social Footprint, Adrian Henriques
2. Project Management Absolute Beginner's Guide, Author Gregory Horine, PMP
3. A Guide to the Project Management Body of Knowledge (PMBOK Guide)Project Management Institute
4. Project Management for Environmental, Construction and Manufacturing Engineers, A Manual for Putting Theory into Practice, by Munier, Nolberto

Suggested Reference Books

5. Project management Institute, The Guide to the Project Management Body of Knowledge (PMBOK Guide), PMI Publication
2. Managing Social Research: A Practical Guide, Roger Tarling
3. Managing to Care: Case Management and Service System Reform (Social Institutions and Social Change)Ann Dill.
4. Managing Corporate Social Responsibility in Action (Corporate Social Responsibility Series)Hond

Audio Visual Content

7. Social Project Management
https://www.youtube.com/watch?v=oj2OU54_1Oo
8. 10 Best Project Management Tools for Teams in 2019
https://www.youtube.com/watch?v=qUuVnbuDrk8
9. Social Project Management
https://www.youtube.com/watch?v=oj2OU54_1Oo&t=64s
10. Social Media: The Ultimate Project Planning Tool
https://www.youtube.com/watch?v=jy18tDF1KMI

11. SCBA- Project Management (Social Cost Benefit Analysis)
https://www.youtube.com/watch?v=wDLUBbSSsUY

Journals

1. https://www.simplilearn.com/social-media-project-management-guide-article#:~:text=%20The%20Ultimate%20Social%20Media%20Project%20Management%20Guide,time.%20This%20is%20especially%20true%20with...%20More%20
2. https://www.journals.elsevier.com/international-journal-of-project-management
3. https://journals.sagepub.com/home/pmx
4. http://growingscience.com/beta/jpm
5. https://www.sciencedirect.com/journal/international-journal-of-project-management
6. https://www.sciencedirect.com/science/article/pii/S1877050919322537
7. https://sciendo.com/journal/JEPPM

Case Studies

1. https://www.simplilearn.com/social-media-project-management-guide-article#:~:text=%20The%20Ultimate%20Social%20Media%20Project%20Management%20Guide,time.%20This%20is%20especially%20true%20with...%20More%20
2. https://www.pmi.org.in/PMI-Case-Studies-Research-Report/tmpUpload/34201406092928.pdf
3. https://som.yale.edu/faculty-research-centers/centers-initiatives/program-on-social-enterprise/social-enterprise-case-studies
4. https://pmworldlibrary.net/wp-content/uploads/2013/01/PMWJ4-Nov2012-GOEDKNEGT-Sustainability-in-Project-Management-StudentPaper.pdf
5. https://www.icmrindia.org/casestudies/Case_Studies_Concept_Wise.asp?cat=Social%20Responsibility

Websites

4. https://www.pmi.org.in/
5. https://www.apm.org.uk/
6. https://pm-alliance.com/
7. www.manage.gov.in

Semester III	**315 PRJ**	**315 PRJ SE-IL-PRJ-14 Marketing and Branding of Projects**
2 Credits	**LTP: 2:0:0**	**Subject Elective (SE-IL) Course – Project Management**

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

CO#	**COGNITIVE ABILITIES**	**COURSE OUTCOMES**
CO315 PRJ .1	REMEMBERING	DEFINE the key concepts of Marketing and Branding.
CO315 PRJ .2	UNDERSTANDING	DEMONSTRATE knowledge & understanding of use of Marketing and Branding in the Projects.
CO315 PRJ .3	APPLYING	IDENTIFY and mitigate Examine brand concepts with reference to the Project setting by articulating the context of and the rationale for the application.
CO315 PRJ .4	ANALYSING	ILLUSTRATE
CO315 PRJ .5	CREATING	CONDUCT a brand audit using both primary and secondary sources and to propose strategic recommendations based on the audit results.

1. **Introduction:** What is a brand and what is brand management? The importance of consumer perception and behavior in branding, Tools for marketing and branding strategy, Brand Equity, Branding and Ethics, Internet and Social media branding, Marketing Advantages of Strong Brands, Impact of brands in markets, society and business, The Internationalization of brands. (5+1)
2. **Brand Equity, Identity & Strategy:** The brand equity model by Aaker, Brand Loyalty, Brand Awareness, Corporate Brand Identity, Brand Visual Identity, Keller's Prism Model, Brand Positioning, Brand Reinforcement and Brand Revitalization, Brand leverage, vertical and horizontal extensions, Brand Management in time, Branded House and House of Brands (5+1)
3. **Branding of Projects:** Why every Project needs a branding, Creating Project Brand, 5 P's of Project Branding, Steps in Project branding, Project Branding elements, Branding tools & techniques for Projects. (5+1)
4. **Advertising**: Objectives, goals, DAGMAR Model. Media strategy: budgeting, approach and allocation. Media strategy: budgeting, approach and allocation. Media planning types, class, vehicle, scheduling and new media forms. Advertising effectiveness; pro and post launch research. (5+1)
5. **Cases:** Cases in application of branding and marketing of Projects, creation of branding materials for projects. (5+1)

Suggested Text Books

1. Kevin Lane Keller (2012), Strategic Brand Management: Building, Measuring, and Managing Brand Equity, 4th Edition, ISBN 10: 0-13-266425-9
2. Aaker,D.(2004) Brand Portfolio Strategy: Creating Relevance, Differentiation, Energy,Leverage, and Clarity: Free Press.

Suggested Reference Books

1. Project management Institute, The Guide to the Project Management Body of Knowledge (PMBOK Guide), PMI Publication

Journals

https://pmqlinkedin.files.wordpress.com/2011/09/why-every-project-needs-a-brand-mit-sloan.pdf
Lowrie, Understanding Branding in Higher Education, Marketing and Communication in Higher Education, DOI 10.1057/978-1-137-56071-1
https://www.thebrandingjournal.com/

Case Studies

https://www.brandextract.com/Work/
https://www.zurekdesigns.co.nz/branding-case-studies

Websites

https://sloanreview.mit.edu/article/why-every-project-needs-a-brand-and-how-to-create-one/
https://projectinsight.com/blogs/project-management/the-importance-of-branding-projects
https://simplicable.com/new/project-branding
https://www.forbes.com/sites/williamarruda/2018/03/06/seven-reasons-why-project-managers-need-to-brand-their-projects/?sh=3353c2173b8e
https://rccmindore.com/wp-content/uploads/2015/06/Advertsing-Brand-Managing-19-1.pdf

Semester III	316 PRJ	316 PRJ SE-IL-PRJ-15 Digital Trends in Project Management
2 Credits	LTP: 2:0:0	Subject Elective (SE-IL) Course – Project Management

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO316PRJ .1	REMEMBERING	DEFINE the key concepts of Digitalization.
CO316PRJ .2	UNDERSTANDING	DEMONSTRATE knowledge & skills of the concept of digitization and describe digital trends, challenges and possibilities for individual, organization and society.
CO316PRJ .3	APPLYING	IDENTIFY and APPLY the concepts digital information and digital transformation in the field of Project Management.
CO316PRJ .4	EVALUATING	ILLUSTRATE the results from various projects to inquire and elaborate on the issues concerning digitization of the project management.
CO316PRJ .5	CREATE	CONDUCT a practical study of use of digitalization in Project Management.

1. **Fundamentals of Digitalization:** Digitization as a strategy, Important steps in Digitization – Planning, Pre digitization, Digital conversion, Post Digitization., IPR in digitization, Digital Preservation, Digital Access, Digital Repositories, Economic Aspects of digitization. Challenges during digital transformation (5+1)
2. **Digital-age Skills for Managers:** Data Science Skills, Innovative Mindset, Security and Privacy Knowledge, Legal Aspects of digitalization, Data driven decisions, Collaborative Leadership. Role of digital project manager. (5+1)
3. **Next-Level Tools and approaches:** IoT, AI, Cloud Solutions, 3 D Printing, Block Chain, Autonomous Vehicles, Large Scale Energy Sources, Spreadsheet, MS Project, Accolade, Smartsheet, Trello, Atlassian, Collabnet (5+1)
4. **Digital project phases: Initiating:** Need Assessment, Documentation, **Planning Phase:** Communication, Information Architecture, Analysis, Development, preparation **Execution phase:** Content, Testing**, Maintenance phase** (5+1)
5. **Cases:** Cases in application of digitalization tools and strategies in the field of Project Management. (4+2)

Suggested Text Books

1. Rogers, David L. The digital transformation playbook: Rethink your business for the digital age. Columbia University Press, 2016.
2. Digital Project Management, The complete step by step guide to a successful launch. Taylor Olson, J.Ross Publication, 2016

Suggested Reference Books

1. Project Management in Manufacturing and High Technology OperationsBy AdedejiBodundeBadiru, 2nd edition, John Wiley and Sons
2. Project Management Absolute Beginner's Guide, Author Gregory Horine,
3. PMP Project Management Metrics, KPIs, and Dashboards: A Guide to Measuring and Monitoring Project Performance, by Harold Kerzner, Wiley Books
4. Project Management for Environmental, Construction and Manufacturing Engineers, A Manual for Putting Theory into Practice, by Munier, Nolberto

Suggested Journals

1. Westerman, George, Didier Bonnet, and Andrew McAfee. "The nine elements of digital transformation." MIT Sloan Management Review 55.3 (2014): 1-6.
2. https://www.pmi.org/-/media/pmi/documents/public/pdf/learning/thought-leadership/pulse/digital-pm-skills.pdf

3. https://www.pmi.org/-/media/pmi/documents/public/pdf/learning/thought-leadership/pulse/maximize-benefits-disruptive-technologies-projects.pdf?v=23e686de-3a1a-47cf-ba0a-d22343b44f74

Websites

https://www.bl.uk/digitisation-services/getting-started

Semester III	**317 PRJ**	**317 PRJ SE-IL-PRJ-16 Virtual Team Management**
2 Credits	**LTP: 2:0:0**	**Subject Elective (SE-IL) Course – Project Management**

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

CO#	**COGNITIVE ABILITIES**	**COURSE OUTCOMES**
CO317PRJ .1	REMEMBERING	Understand the core concepts of Virtual Team Management
CO317PRJ .2	UNDERSTANDING	Implementation of the mechanism of managing Virtual Teams online.
CO317PRJ .3	APPLYING	Identify the challenges and issues of Virtual Team Management
CO317PRJ .4	EVALUATING	Analyze how the performance can be improved managing teams online.
CO317PRJ .5	CREATE	Apply the appropriatetools andtechniques of Software management.

1. **Introduction to Virtual Project Management :** Basics and Definition of virtual teams, Project Life cycle, Project Management Process - Initiating, Planning, Executing, Monitoring & Controlling, Closing. Creating a foundational strategy for executing a remote transformation, Identification of stakeholders & develop stakeholder management strategy, Determine team along with roles & responsibilities (5+1)
2. **Building virtual team**: Leadership, Challenges faced by virtual teams, Stress Management, Opportunities and wellness of remote working, Building a remote organizational culture and practices, Getting ready to work remotely, Identification of resources, environments & tools necessary for executing & monitoring, Importance of Remote working, Reasons for Rise in Virtual Team Management, Strategies for effective Management (5+1)
3. **Managing virtual team:** Cultural aspects of virtual teams, understanding and handling cross cultural teams, Barriers in Virtual Team Management, overcoming the barriers - Language, Time and Cultural Barriers, Opportunities and challenges, How to Track Productivity and Project Progress, Managing Off-Site Vs. On-Site Workers, Policies And Procedures, Approaches to Team Building, Team meeting, Improving team efficiency, Type of virtual teams, virtual communication, Work-life Balance (5+1)
4. **Tools of Virtual Team Management:** Importance, How to choose the best possible tool, Asana, Jira Cloud and Hubspot. handling multiple simultaneous projects, how to improve productivity and communication, Best Practices, practical strategies for the dos and don'ts of virtual teams, Managing virtual teams for high performance, Examples of Virtual Teams, How to Keep Virtual Team on Track, Tips and Tools, Emerging Issues in Virtual Projects (5+1)
5. **Case studies:** Indicative: Leo Burnett Co. Ltd.: Virtual Team Management Case Study Analysis & Solution,Leading Virtual Teams: Three Cases, James R. Johnson, Purdue University Calumet, A Case Study of Project Management Practices in Virtual Settings: Lessons from Working in and Managing Virtual Teams (4+2)

Suggested Text Books

6. Project Management in Manufacturing and High Technology OperationsBy AdedejiBodundeBadiru, 2nd edition, John Wiley and Sons
7. Project Management Absolute Beginner's Guide, Author Gregory Horine,
8. PMP Project Management Metrics, KPIs, and Dashboards: A Guide to Measuring and Monitoring Project Performance, by Harold Kerzner, Wiley Books

9. Project Management for Environmental, Construction and Manufacturing Engineers, A Manual for Putting Theory into Practice, by Munier, Nolberto

Suggested Reference Books

6. Project management Institute, The Guide to the Project Management Body of Knowledge (PMBOK Guide), PMI Publication
7. Project Management, Planning and Control, 7thEdition, Managing Engineering, Construction and Manufacturing Projects to PMI, APM and BSI Standards, by Albert Lester, Butterworth-Heinemann
8. Project Management for Engineering, Business, and Technology, by John M. Nicholas, Herman Steyn, Butterworth-Heinemann

Project Management for Engineering, Business and Technology, By Nicholas, Published by Taylor & Francis

Suggested Audio Visuals link

12. How to Lead: Building a High Performance Virtual Team
    https://www.youtube.com/watch?v=5G0oGE6jbaM
13. The 21 Rules for Managing Remote Teams
    https://www.youtube.com/watch?v=KLDSokWCbFY
14. Challenges of Working Remotely
    https://www.youtube.com/watch?v=EVI39iu8_lY
15. Global Virtual Teams: The best tips for virtual team members, collaborating with virtual colleagues
    https://www.youtube.com/watch?v=_nnDLCwYHFA
16. The 7 deadly sins of virtual communication: Tips for teams
    https://www.youtube.com/watch?v=3N3ZYpLDunI

Suggested Journals

1. Project Management Metrics, KPIs, and Dashboards - A Guide to Measuring and Monitoring Project Performance, Harold Kerzner, PhD
2. Pullan, P. &Prokopi, E. (2016). Leading virtual project teams: dos and don'ts. Paper presented at PMI® Global Congress 2016—EMEA, Barcelona, Spain. Newtown Square, PA: Project Management Institute.
3. Pitagorsky, G. (2007). Managing virtual teams for high performance. Paper presented at PMI® Global Congress 2007—North America, Atlanta, GA. Newtown Square, PA: Project Management Institute.
4. https://www.pmi.org/learning/academic-research/project-management-curriculum-and-resources/academic-project-management-case-studies
5. https://www.pmsolutions.com/case-studies
6. https://www.apm.org.uk/resources/find-a-resource/case-studies/
7. https://cdn.ymaws.com/members.councilofmls.org/resource/resmgr/files/CMLS-PMCaseStudy18f.pdf
8. https://www.easyproject.com/solutions/easy-project-management-case-studies
9. https://www.pmsolutions.com/case-studies/category/manufacturing
10. *ProjectManager.com*
11. https://files.eric.ed.gov/fulltext/ED492489.pdf
12. https://www.researchgate.net/publication/220627785_A_Case_Study_of_Project_Management_Practices_in_Virtual_Settings_Lessons_from_Working_in_and_Managing_Virtual_Teams
13. https://www.journals.elsevier.com/international-journal-of-project-management
14. https://journals.sagepub.com/home/pmx
15. http://growingscience.com/beta/jpm
16. https://www.sciencedirect.com/journal/international-journal-of-project-management
17. https://www.sciencedirect.com/science/article/pii/S1877050919322537
18. https://sciendo.com/journal/JEPPM

Websites

8. https://www.pmi.org.in/
9. https://www.apm.org.uk/
10. https://pm-alliance.com/

11. www.manage.gov.in
12. https://thedigitalprojectmanager.com/managing-virtual-teams/
13. https://project-management-knowledge.com/
14. https://www.projecttimes.com/articles/managing-a-virtual-project-team/

Semester- III	**318 PRJ**	**318 PRJ SE-IL-PRJ-17 Project Quality Management**
2 Credits	**LTP: 2:0:0**	**Subject Elective (SE-IL) Course – Project Management**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO318 PRJ .1	REMEMBERING	Describe the concepts of Project Quality Management
CO318 PRJ .2	UNDERSTANDING	Understand the Project Quality Management, it's Pioneers & Paradigm
CO318 PRJ .3	APPLYING	Developing the Project Quality Assurance Activities & Apply the Quality Control tools for Quality improvement.
CO318 PRJ .4	ANALYSING	Analyze the Quality data for understanding the project quality process & solving the project problems
CO318 PRJ .5	EVALUATING	Evaluate the common project practices & Quality in practice.
CO318 PRJ .6	CREATING	SOLVE the relevant numerical in the scope of the subject.

1. **Understanding Quality in the Project Management Domain:** Definition of Quality, Traditional Definitions, Quality and the Triple Constraint, Cost of Quality, Benefits of Quality, Evolution of Quality and Its Contemporary Application: Progressive History: The Dark Ages, Scientific Management, Understanding Variation, Japanese Quality, Customers and Systems, Quality Then and Now, The Wheel of Quality. (5+1)
2. **Pioneers , Paradigms & Quality Management:** Pioneers: Walter Shewhart , W. Edwards Deming, Joseph M. Juran, Philip B. Crosby, Kaoru Ishikawa, Genichi Taguchi, Paradigms: Six Sigma, ISO 9000, Baldrige National Quality Program, Quality Management: Quality Management & Quality Planning, Quality Management Plan, Identifying Customers, Prioritizing Customers, Identifying Requirements, Prioritizing Requirements, Quality Planning and Project Planning, Identifying Standards (5+1)
3. **Project Quality Assurance, Control & Improvement:** Project Quality Assurance: Developing Assurance Activities, Metrics, Quality Assurance Plan, Quality Audits. Quality Control: Role of Inspection, Quality Control Tools. Quality Improvement: Reasons for Quality Improvement, Hurdles, Improvement Methodology. (5+1)
4. **Tools for Managing Project Quality:** Collecting and Understanding Project Data: Tools for Collecting Data: Check sheet, Tools for Understanding Data: Graphs , Histograms , Pareto Charts , Scatter Diagrams, Tools for Understanding Project Processes: Flow Charts, Run Charts, Control Charts, Tools for Analyzing Processes: Cause and Effect Diagrams, Pillar Diagrams. Tools for Solving Project Problems: Force Field Analysis, Brainstorming, Affinity Diagrams, Nominal Group Technique and Multivoting. (5+1)
5. **Common Project Practices & Quality in Practice:** Commonly Used Tools: Compliance matrix, Peer Review. Project Systems and Solutions : The Red Bead Experiment , Practical Exercise: Background, Data Collection, Requirement. (5+1)

Suggested Text Books :

1. Project Quality Management by Kenneth H. Rose, J. Ross Publishing.

2. Operations Management: Theory and Practice by B Mahadevan, Pearson, 2nd Edition
3. Managing Quality by Dale, Blackwell Publication.

Suggested Reference Books:

1. Quality Management by Howard Gitlow, Alan Oppenheim, Rosa Oppenheim and David Levine, TMGH, 3rd Edition.
2. Managing Quality Edited by Barrie G Dale, Ton van der Wiele and Jos van Iwaarden, Blackwell Publishing, 5th Edition

Suggested Audio Visuals link:

https://www.youtube.com/watch?v=o_vexQUWH4s,

Suggested Journals:

https://www.researchgate.net/publication/285175541_Project_Quality_Management
https://www.academia.edu/Documents/in/Project_Quality_Management

Suggested Swayam Course

1. Continuous Quality improvement: Tools & Technique by Dr Sanjeev Singh, Quality Council of India
2. Quality Engineering & Management by Dr. Venkateshwarlu, Indira Gandhi National Open University.
3. Quality Design & Control by Prof. Pradip KumarRay, IITKharagpur

SEMESTER IV SC AND SE IL COURSES

Semester IV	403 PRJ	403 PRJ- Procurements and Contract Management in Projects
3 Credits	**LTP: 2:1:0**	**Subject Core (SC) Course – Project Management**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO403 PRJ .1	REMEMBERING	Describe the key concepts of Project Procurement Management
CO403 PRJ .2	UNDERSTANDING	Understand the Core Principles of Project Procurement Management
CO403 PRJ .3	APPLYING	Demonstrate the hands on expertise in Procurement Planning, Contract Strategy
CO403 PRJ .4	ANALYSING	Develop Collaborative procurement arrangements
CO403 PRJ .5	EVALUATING	Recognize and Promote Ethic Practice in Project Procurement and Contracting

1. **Introduction to Project Procurement Management:** Concept, Definition, Centralized Procurement, decentralized Procurement, Six Major Project Procurement Processes- Procurement Planning, Solicitation Planning, Solicitation, Source Selection, Contract Administration, Contract Close out; Types of Procurement;
2. **Defining project scope for Make or Buy Decision**: Introduction to Corporate Teaming Arrangements; Basics of Project Procurement Risks and Risk Management; Role of Project Procurement Manager
3. **Contract Management:** Objectives, Concept of Contract, Typical Clauses to be included in Project Procurement Contracts; Types of contract: turnkey contracts and non-turnkey contracts; Fixed cost contracts, cost- reimbursable contracts (Numerical on Fixed Cost Contracts and cost-reimbursable contracts); Sub- contracting; preparation of specifications for project activities; tenders- tender notice, tender documents, pre-qualification of tenders, EMD (Earnest Money Deposit), Security Deposit, Acceptance of Tenders, Letter of Intent, Execution of deed of contract, Penalty Clause, Types of Payments to contractors- 1) Bill- First and final bill & Running Account Bill; 2) Liquidated damages
4. **Project Procurement Management Plan**: Scheduling, budgeting and other issues; Solicitation Planning- Business Definition (SOW), Technical Definition, Full and Open Procurement Competition, RFP, Evaluating Seller's Proposals
5. **Solicitation of Sellers' Proposal:** Source Selection- Cost Analysis, Price Analysis; Contract Administration- Earned Value Management (EVM); Contract Close out- Termination of Contractual Relationship, Settlement of Seller's Claim, Project Close-out Checklist; Legal Aspects of Project Procurement t Management

Suggested Text Books

1. Project Procurement Management- Contracting, Subcontracting, Teaming by Quentin W Fleming, FMC Press

Suggested Reference Books

1. Project Management by K Nagarajan, New Age International Publishers

Semester IV	404 PRJ	404 PRJ- 404 PRJ SC-PRJ-06 Governance , Continuity and Ethics in Project Management
3 Credits	LTP: 2:1:0	Subject Core (SC) Course – Project Management

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO404 PRJ .1	REMEMBERING	DESCRIBE the concepts of Project and Project Management
CO404 PRJ .2	UNDERSTANDING	UNDERSTAND the Continuity process of Project Management
CO404 PRJ .3	APPLYING	MAKE USE OF the Governance in Project Management for successful project implementation.
CO404 PRJ .4	ANALYSING	ANALYZE the Professional ethics in Project Management
CO404 PRJ .5	EVALUATING	EVALUATE ethical decision practices & its effect on project management
CO404 PRJ .6	CREATING	DEVELOP best practices in project management.

1. **Project Management- Introduction:** Project management-Defining project, project characteristics; need for project management, project management plan, project time management, 7-step network building process, project time management, cost management, quality management, human resource management, communications management, risk management, change management, procurement management, document management, project life cycle, project integration management – initiating, planning, executing, controlling, closing Characteristics of project planner; flexible, creative, responsive, communicative, analytic (7+2)
2. **Continuity of Project:** Business Continuity Process – definition and 7 step in BCP, Preparing people and organizations for the challenges of Change Concept of Continuity- Steps in Project Continuity-Project Planning, Training-Project Scheduling, Budget Planning, Procurement Management, Quality Planning, Communication, Risk Management, Project implementation, Project completion(7+2)
3. **Governance In Project Management:** Concept of Governance – Concept of Project management governance -Corporate Management Governance, -Corporate governance is concerned with - Accountability, Disclosure and transparency, Roles and responsibilities, Risk management, Decision-making, Ethics, Performance and effectiveness Project governance-Purpose, Principle- Project management governance framework- core elements project Management governance framework-Roles and responsibilities, Decision making process and levels, Methodologies, the need for methodology development, Competences, Communication process, Controlling process(7+2)
4. **Ethics in Project Management:** Concept of Ethics-Introduction to Professional Ethics-Professional Ethics – Definition, Characteristics of Ethical Managers, Causes of Unethical Behavior, Importance for the Project Management, Benefits of Maintaining Professional Ethics, Interpersonal Ethics for the Project Management - Maintaining High Standards for Self, Accepting Responsibility for Actions, Growing Capabilities, Interacting with Others in Fairness(7+2)
5. **Ethical Decision Making:** Code Of Ethics-Ethical issues in Project Management Ethical Practice during the Project Lifecycle- Ethical Reporting, Communicating and Managing Issues and Risks in an Ethical Manner, Ethical Decision Making- Framework of Ethical Decision Making, Barriers to Ethical Decision Making, Ethical Issues and Dilemmas, Solutions to Ethical Problems, Reasons for Ethical Violations in Workplace, Consequences of Ethical Decisions, Best Practices in Project Management(7+2)

Suggested Text Books

1. Fundamentals of Project Management – Joseph Heagney– AMACOM
2. Project Management Core Textbook (2nd edition) – M. R. Gopalan – Wiley
3. Project Management : The Managerial Process – Clifford F Gray, Erik W Larson, Gautam V Desai - McGraw Hill Education

4. Business Ethics by Chandra Kumar Roy &Prabhat Kumar Roy, Vikas Publishing House

Suggested Reference Books

1. Project Management-A system Approach to Planning, Scheduling and Controlling-Harold Kerzner-Seventh Edition-Joan Wiley & Sons. Inc.
2. Project Management Case Studies-Harold Kerzner-Joan Wiley & Sons. Inc
3. Project Management Best Practices-Harold Kerzner-Fourth Edition-Joan Wiley & Sons. Inc
4. Project Management-The Open University of Hong kong
5. Business Ethics by Kumar Shailendra –Cengage Publication
6. Business Ethics and Corporate Governance - Second Edition –A.C.Fernando- Pearson

Journals

1. Project Management Journal, PMI
2. Journal of Modern Project Management (www.journalmocernpm.com)
3. Article_Frank_Smits.pdf

Websites

1. www.pmi.org.in

Semester IV	**409 PRJ**	**409 PRJ SE-IL-PRJ-21 Agile Project Management**
2 Credits	**LTP: 2:0:0**	**Subject Elective (SE-IL) Course – Project Management**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO409PRJ .1	REMEMBERING	Define the Agile Manifesto and Principles
CO409PRJ .2	UNDERSTANDING	Understand Agile approaches and environments
CO409PRJ .3	APPLYING	Creating the product vision and roadmap, Agile planning and release
CO409PRJ .4	EVALUATING	Understand and implement Agile management and team
CO409PRJ .5	CREATE	Create risk management templates for implementing Agile

1. **Understanding Agile**: Modernizing Project Management, applying the Agile Manifesto and Principles, why being Agile works better (5+1)
2. **Being Agile**: Agile approaches, Agile environments in action, Agile behaviours in action (5+2)
3. **Agile Planning and Execution:** Defining the Product Vision and Product Roadmap, Agile planning, Planning releases and sprints, working throughout the day – daily scrum & tracking progress, showcasing the work, inspecting, and adapting, Preparing for release.(5+1)
4. **Agile Management:** Managing scope and procurement, managing time and cost, managing team dynamics and communication, Managing Quality and Risk (5+1)
5. **Ensuing Agile Success:** Building a foundation, Scaling across Agile teams, being a change agent, Key benefits of Agile project Management, Key factors for Success, metrics for Agile organizations.(4+1)

Suggested Text Books

1. Agile Project Management for Dummies, by Mark C. Layton, Steven J. Ostermiller, Wiley
2. Agile Project Management with Scrum, by Ken Schwaber, Microsoft Press
3. Project Management, the Agile way, Making it work in the enterprise, John C Goodpasture, PMP, J Ross Publishing.
4. Agile Project Management, Ross J, BPB Publications

Suggested Reference Books

1. Project Management Body of Knowledge, by Project Management Institute (PMI)
2. Coaching Agile Teams: A Companion for Scrum Masters, Agile Coaches, and Project Managers in Transition, by Lyssa Adkins
3. The Agile Enterprise: Building and Running Agile Organizations by Mario E. Moreira, APRESS Publications

Suggested Audio Visuals link

1. Agile Programme Management (DSDM) AgilePgM - An Introductory video on the Accredited Course
https://www.youtube.com/watch?v=jmOxVPlQEnk
2. Richard Atherton on Agile Programme Management
https://www.youtube.com/watch?v=B6nz77SePJQ
3. Agile Project Management Tutorial
https://www.youtube.com/watch?v=thsFsPnUHRA
4. Agile Project Management on Coursera
https://www.coursera.org/learn/it-project-management?isNewUser=true
5. Agile Project Management Explained (With Burgers!)
https://www.youtube.com/watch?v=zi7uGg6FVM4

Suggested Journals

1. Researchgate
https://www.researchgate.net/publication/326101642_Agile_Project_Management_Review_Challenges_and_Open_Issues
2. Agile Project Management: A Communicational Workflow
https://www.sciencedirect.com/science/article/pii/S1877050919322574
3. Benefits of Agile Project Management
http://apheit.bu.ac.th/jounal/Inter-1-2559/p23-29-Thosaphon.pdf
4. How agile project management can work for your research
https://www.nature.com/articles/d41586-019-01184-9

Semester IV	**410 PRJ**	**410 PRJ SE-IL-PRJ-22 Analytics in Project Management**
2 Credits	**LTP: 2:0:0**	**Subject Elective (SE-IL) Course – Project Management**

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

CO#	**COGNITIVE ABILITIES**	**COURSE OUTCOMES**
CO410PRJ .1	REMEMBERING	Describe the basic terms associated Project Management analytics and its approaches
CO410PRJ .2	UNDERSTANDING	Understand PM Framework and analytics concepts, tools and techniques
CO410PRJ .3	APPLYING	Elaborate hypothesis Correlation, and Linear Regression; and analytic hierarchy process
CO410PRJ .4	EVALUATING	Learn and Manage Lean Six Sigma and Statistical Applications in PM
CO410PRJ .5	CREATE	Apply the concepts of Project Decision-Making and Lean Six Sigma Applications in PM

1. **Project Management Analytics** - What Is Analytics, Why Is Analytics Important in PM, How Project Managers use Analytics in PM, Project Management Analytics Approach. Data Driven Decision-making Automation and Management of the Decision-Making Process (5+1)

2. **Project Management Framework -** What Is a Project, How Is a Project Different from Operations, Project versus Program versus Portfolio, Project Management Office (PMO), Project Life Cycle (PLC), Project Management Life Cycle (PMLC), Process within the PMLC, Work Breakdown Structure (WBS), Systems Development Life Cycle (SDLC). **Introduction to Analytics Concepts, Tools, and Techniques** - Basics and Probability Distributions, Statistics Basics, Probability Distribution, Mean, Variance, and Standard Deviation of a Binomial, Distribution, Poisson Distribution, Normal Distribution, Confidence Intervals (5+1)
3. **Hypothesis, Correlation, and Linear Regression** - What Is a Hypothesis, Statistical Hypothesis Testing, Rejection Region, The z-Test versus the t-Test, Correlation in Statistics, Linear Regression, Predicting y-Values Using the Multiple Regression Equation. **Analytic Hierarchy Process** - Using the AHP, AHP Pros and Cons (5+1)
4. **Lean Six Sigma** - What Is Lean Six Sigma, How LSS Can Improve the Status Quo, Lean Six Sigma Tools. **Statistical Applications in PM** - Statistical Tools and Techniques for PM, Probability Theory, Probability Distributions, Central Limit Theorem, Critical Path Method (CPM), Critical Chain Method (CCM), Program Evaluation and Review Technique (PERT), Graphical Evaluation and Review Technique (GERT), Correlation and Covariance, Predictive Analysis: Linear Regression, Confidence Intervals: Prediction Using Earned Value, Management (EVM) Coupled with Confidence Intervals, Earned Value Management (EVM) (5+1)
5. **Project Decision-Making with the AHP** - Project Evaluation and Selection, More Applications of the AHP in Project Management, **Lean Six Sigma Applications in PM** - PM Challenges and LSSRemedies, PM with Lean Six Sigma (PMLSS) - A Synergistic Blend, PMLC versus LSS DMAIC Stages, LSS Tools and Techniques, PMBOK4 Process Framework, Power of LSS Control Charts, Agile Project Management and Lean Six Sigma, Role of Lean Techniques in Agile PM, Role of Six Sigma Tools and Techniques in the Agile PM, Lean PMO, Improve the PMO . (4+2)

Suggested Text Books

9. Project Management Analytics, Harijit Singh, Paul Boger Publications, ISBN: 10: 0-13-418994-9
10. Data Analytics in ProjectManagementEdited bySeweryn Spalek, CRC Press, ISBN: 13: 978-1-138-30728-5
11. PMI Guide to Business Analysis, PMI, ISBN: 978-1-62825-198-2

Suggested Reference Books

1. Project management Institute, The Guide to the Project Management Body of Knowledge (PMBOK Guide), PMIPublication
2. Big Data Analytics Using Multiple Criteria Decision-Making Models
3. Edited ByRamakrishnan Ramanathan, Muthu Mathirajan, A. Ravi Ravindran
4. Collaboration Tools for ProjectManagers - How to Choose, Get Started, andCollaborate with Technology, By Elizabeth Harrin, PMI, ISBN: 978-1-62825-113-5

Suggested Audio Visuals link

17. Project Management Full Course | Learn Project Management In 8 Hours | Simplilearnhttps://www.youtube.com/watch?v=uWPIsaYpY7U
18. Data Analytics Project Management Toolshttps://www.youtube.com/watch?v=uRVSm5sFvyo
19. Project Management and Business Analysis | Fanshawe Internationalhttps://www.youtube.com/watch?v=-RCj6QBwND4
20. PMBOK® Guide-Sixth edition : Earned Value Management Analysishttps://www.youtube.com/watch?v=MO6EOMd-CkA

Suggested Journals

1. Project Management EssentialsAnalytics for Control, By Adedeji B. Badiru, CRC Press, ISBN 9780367431181
2. Data Analytics, Agile Project Management and Machine Learning - A Three Book Bundle by Robert Keane, Createspace Independent Pub, ISBN-13 : 978-1981383443
3. Project Management Case Studies, https://www.pmi.org/learning/academic-research/project-management-curriculum-and-resources/academic-project-management-case-studies
4. Project Management Case Studies by PM Solutionshttps://www.pmsolutions.com/case-studies
5. PROJECT MANAGEMENT PROGRAM MANAGEMENThttps://harvardpartners.com/resources/case-studies/project-management-program-management/

6. A Case Study InProject Management, A CMLS Technology Section Council White Paper, https://cdn.ymaws.com/members.councilofmls.org/resource/resmgr/files/CMLS-PMCaseStudy18f.pdf
7. International Journal of Project Management
    a. https://www.journals.elsevier.com/international-journal-of-project-management
8. Analyzing project management research: Perspectives from top management journalshttps://www.researchgate.net/publication/222414832_Analyzing_project_management_research_Perspectives_from_top_management_journals
9. The Journal of Modern Project Managementhttps://www.journalmodernpm.com

Websites

15. https://www.pmi.org.in/
16. https://www.apm.org.uk/

Semester IV	411 PRJ	411 PRJ SE-IL-PRJ-23 Lean Management
2 Credits	**LTP: 2:0:0**	**Subject Elective (SE-IL) Course – Project Management**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO411 PRJ .1	REMEMBERING	Describe the concepts of Lean Management & House of Lean Management
CO411 PRJ .2	UNDERSTANDING	Understand the Lean Management Systems & Lean Educational System.
CO411 PRJ .3	APPLYING	Identification of waste & Apply the Lean measurement system to measure the waste.
CO411 PRJ .4	ANALYSING	Analyze the waste& apply the Lean tools to eliminate the waste
CO411 PRJ .5	EVALUATING	Evaluate the lean Management practices& develop the lean management systems Organizational Plan.
CO411 PRJ .6	CREATING	SOLVE the relevant numerical in the scope of the subject.

1. **Introduction to Lean Management:** Overview, Dawn of Lean Manufacturing, Porsche and the Lean Transformation, Performance Management, Asset Management, Resource Management, Risk Management, Lean Management System Deployment Model. House of Lean Management: Introduction, Lean Activity Model, A framework for lean Management Implementation, Inclusion of Lean Management System indicators & metrics. Four pillars of lean management model, five foundation stones of the Lean Management System. (7+2)
2. **Lean Management Systems:** Overview, Views of Toyota Management, Defining your Lean Management System – Lean Management System Scorecard, Lean Management Model, Strategy Management Model, Operations Management Model. Lean Educational System: Introduction, Purpose of Lean Educational System, Lean Education Strategy, Lean Learning Cycle, Key Education System Implementation Challenges. (6+2)
3. **Waste Identification & Quantifications:** Waste Identifications: introduction, what is variation, what is Waste, How Does Waste Creep into a Process, Power of Observation, Nine Waste Categories: Overproduction, Excess Inventory, Defects, Extra Processing, Waiting, Motion, Transportation, Underutilized people, Employee Behavior. Waste Quantification: Introduction, Measurement System Theory, Measurement System practice, Types of Measures, Lean measures vs Non Lean measures, Critical Component of the Lean Measurement System, Selecting New lean measures, Measuring performance over time. (8+2)
4. **Lean Concept, Tools & Methods:** Introduction, Lean Managements Concepts, Lean Tools- 5S, Overall Equipment Effectiveness, Mistake Proofing, Cellular Manufacturing, kanban, Visual Controls. The power of Lean Concepts & Lean Tools, Kaizen, Integrating Lean Management with DMAIC / DMADV:

Introduction, Goals of DMAIC, DMADV & lean Management systems, Root Cause Analysis & lean Management. Integrating Lean & Theory of Constraints: Overview, Comparing lean & Theory of Constraint, Integrating lean & Six sigma under Theory of Constraint. (7+2)

5. **Lean Management Systems organizational Master Plan:** Overview, lean Management System Transition Phases- Evaluate the Lean Management System methodology, Define Opportunity with the Organization, Develop the Implementation plan, Implement the plan, measure the results, Continue to improvement. Developing a Lean Culture & Change Management Environment- Lean Culture Development, Change Management, Facilitating Lean Management, The organization as a System, Catchball. (7+2)

Suggested Text Books:

1. The Lean Management System Handbook by Rich Charron, H. James Harrington, CRC press.
2. Operations Management: Theory and Practice by B Mahadevan, Pearson, 2nd Edition
3. Operations Research – by Nita Shah, Ravi Gor, Hardik Soni- Prentice Hall India

Suggested Reference Books:

3. Implementing a Lean Management System by Thomas L Jackson, Productivity Press.
4. How to Implement a Lean Manufacturing by Lonnie Wilson, Mc Graw Hill publication,

Suggested Audio Visuals link:

1. https://www.youtube.com/watch?v=G_0bl6FHo_c

Suggested Journals:

1. https://www.researchgate.net/publication/271029631_Lean_manufacturing_Literature_review_and_research_issues

Suggested Swayam Course

1. Toyota Production System by Dr. Rajat Agrawal, IIT Roorkee

Semester IV	**412 PRJ**	**412 PRJ SE-IL-PRJ-24 Value Engineering**
2 Credits	**LTP: 2:0:0**	**Subject Elective (SE-IL) Course – Project Management**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO412 PRJ .1	REMEMBERING	DEFINE the concepts of value engineering, identify the advantages, applications.
CO412 PRJ .2	UNDERSTANDING	UNDERSTAND the various phases of value engineering, the function, approach of function .
CO412 PRJ .3	APPLYING	IDENTIFY the worth value engineering and queuing theory
CO412 PRJ .4	ANALYSING	ANALYZE the queuing theory and apply it
CO412 PRJ .5	CREATING	EVALUATE the value engineering operation in maintenance and repair activities.

1. **INTRODUCTION:** Value engineering concepts, advantages, applications, problem recognition, and role in productivity, criteria for comparison, element of choice. ORGANIZATION: Level of value engineering in the organization, size and skill of VE staff, small plant, VE activity, unique and quantitative evaluation of ideas. (5+1)

2. **VALUE ENGINEERING JOB PLAN:** Analysis phase. Selection and Evaluation of value engineering Projects, Project selection, methods selection, value standards, application of value engineering methodology. ANALYSIS FUNCTION: Anatomy of the function, use esteem and exchange values, basic vs. secondary vs. unnecessary functions. Approach of function, Evaluation of function, determining function, classifying function, evaluation of costs, evaluation of worth, determining worth, evaluation of value. (5+1)
3. **VALUE ENGINEERING TECHNIQUES** : Selecting products and operation for value engineering action, value engineering programmes, determining and evaluating function(s) assigning rupee equivalents, developing alternate means to required functions, decision making for optimum alternative, use of decision matrix, queuing theory and Monte Carlo method make or buy, measuring profits, reporting results, Follow up, Use of advanced technique like Function Analysis System. (5+1)
4. **VERSATILITY OF VALUE ENGINEERING:** Value engineering operation in maintenance and repair activities, value engineering in non hardware projects. Initiating a value engineering programme Introduction, training plan, career development for value engineering specialties. Fast diagramming: cost models, life cycle costs (5+1)
5. **VALUE ENGINEERING LEVEL OF EFFORT: I**ntroduction, orientation, information phase, speculation phase,Value engineering team, co-coordinator, designer, different services, definitions, construction management contracts, value engineering case studies. (5+1)

Suggested Text Books

Anil Kumar Mukhopadhyaya, "Value Engineering: Concepts Techniques and applications", SAGE Publications 2010.

Suggested Reference Books

8. Alphonse Dell'Isola, "Value Engineering: Practical Applications for Design, Construction, Maintenance & Operations", R S Means Co., 1997.
9. Richard Park, "Value Engineering: A Plan for Invention", St. Lucie Press, 1999.
10. Del L. Younker, "Value Engineering analysis and methodology", Marcel Dekker Inc, New York, 2004.
11. Miles, L.D., "Techniques of Value Analysis and Engineering", McGraw Hill second Edition, 1989.
12. Khanna, O.P., "Industrial Engineering and Management", Dhanpat Rai & Sons, 1993.
13. Anil Kumar Mukhopadhyaya, "Value Engineering Mastermind: From concept to Value Engineering Certification", SAGE Publications, 2003

Semester IV	**413 PRJ**	**413 PRJ SE-IL-PRJ-25 PMO- Project Management Office**
2 Credits	**LTP: 2:0:0**	**Subject Elective (SE-IL) Course – Project Management**

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

CO#	**COGNITIVE ABILITIES**	**COURSE OUTCOMES**
CO413 PRJ .1	REMEMBERING	Describe the basic terms associated with the Programme Management Methodology
CO413 PRJ .2	UNDERSTANDING	Understand thePMO and its models and tools
CO413 PRJ .3	APPLYING	Identify the challenges inestablishing PMO, KM, organisations and structure
CO413 PRJ .4	ANALYSING	Analyze the need of training, career development and team development
CO413 PRJ .5	CREATING	Managing theProject planning, auditing and recovery

1. **Project Management Methodology**- PMO Role, PM Methodology Function Model,Develop Methodology Solution, Conduct Methodology Implementation, Manage Methodology Maturity. **Project Management Tools** – PM Tools Function Model, implement PM tools, Evaluate Tool Performance, **Standards and Metrics**

- Standards and Metrics Function Model, Determine Project Metrics Requirements, Introduce and Use Project Metrics. **Politics**: Project Management Fact-of-Life (5+1)

2. **Project Knowledge Management -** Project KM Function Model, Establish KM Framework, Introduce KM System, Implement KM System, Develop PM Information System (PMIS) and dashboard. **Project Governance** - Project Governance Function Model, PMO Charter, Develop PM Policies, Develop PM classification guidance, Establish Project Manager Authority, Establish Executive Control Board, Align Business and Technical Committees**Assessment** - Assessment Function Model, Competency Assessments, Capability Assessments, Maturity Assessments (5+1)
3. **Organization and Structure** - Organization and Structure Function Model, Set up PMO structure, Establish Project Team Structure, Develop Stakeholder Participation, **Facilities and Equipment Support** - Facilities and Equipment Support Activities across the PMOContinuum, Facilities and Equipment Support Function Model, Establish Project Team Requirements, Manage Project Facilities and equipment. **Resource Management** - Resource Management Activities across the PMO Continuum, Resource Management Function Model, Acquire; Assign and Deploy Project Resources, Manage Resource Performance, Close Project Resource Assignments (5+1)
4. **Training and Education** - Training and Education Function Model, Establish; Manage and Evaluate Training Programs. **Career Development** - Career Development Function Model, Develop & Support PM Career Path, Establish Professional Certification. **Team Development** - Team Development Function Model, Facilitate Cohesive and Virtual Team Formation, Facilitate Leadership Development, Enable Project Team Development, Monitor Project Team Performance. (5+1)
5. **Project Planning** - Project Planning Function Model, Establish Project Planning Capability, Facilitate Project Planning Workshop, Administer Project Planning, **Project Auditing** - Project Auditing Function Model, Set Up Project Auditing Capability, Conduct &Project Auditing and results. **Project Recovery** - Project Recovery Function Model, Develop Recovery Assessment Process, Plan and Conduct Project Recovery, Capture Recovery Lessons Learned (5+1)

Suggested Text Books

1. The Complete Project Management Office Handbook, Gerard M. Hill, Auderbach Publication, ISBN 10: 1-4200-4680-2
2. Managing Politics and Conflict in Projects by Irwin, Brian, Management Concepts, US, ISBN 978-1-56726-221-6
3. Ethics and Governance in Project Management Small Sins Allowed and the Line of Impunity by Lopez, Eduardo Victor Medina, Alicia

Suggested Reference Books

1. PMO Handbook, University of Leicester, ARUP
2. The Little Book of PMO, by Nine feet Tall, www.ninefeettall.com
3. Project management Institute, The Guide to the Project Management Body of Knowledge (PMBOK Guide), PMI Publication
4. The Program Management Office, Establishing, Managing and Growing the value of a PMO – Craig J Letavec, J Ross Publications, ISBN:9781932159592

Audio Visual Content

1. Program Management Office https://www.youtube.com/watch?v=2ls5fR6QA_Q
2. What is Project Management Office Definition & PMO Roles and Responsibilities | AIMS (UK)https://www.youtube.com/watch?v=WFO2sZd8oh4
3. What is a PMO? Project Managementhttps://www.youtube.com/watch?v=cdAfZijI_Hc

Journals

1. The Value of PMO - The Project Management Office In Sync with Strategy, PMI White paper
2. 5 Major roles a Project Management Office plays within a company, blog by Planisware.com
3. The need(s) for a PMO--from a consulting company's perspective, Kumar, Victoria S. | Evans, Gary J.
4. Project Management Case Studies, https://www.pmsolutions.com/case-studies

5. Project Management Case Studies & Examples, https://www.pmsolutions.com/case-studies/category/pmo-deployment
6. PM Case studies, https://www.pmi.org/business-solutions/case-studies

Websites

https://www.pmi.org.in/
https://www.apm.org.uk/

Semester IV	414 PRJ	414 PRJ Critical Chain based Project Management (CCPM)
2 Credits	LTP: 2:1:0	Subject Elective (SE-IL) Course – Project Management

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO414 PRJ .1	REMEMBERING	REMEMBER the Basic concepts of Critical Chain
CO414 PRJ .2	UNDERSTANDING	UNDERSTAND CCPM and peer project management methodologies
CO414 PRJ .3	APPLYING	APPLY Generic CCPM Principles which help to overcome the core issues.
CO414 PRJ .4	ANALYSING	ANALYSE critical chain and critical resources in projects
CO414 PRJ.5	EVALUATING	ESTABLISH the principles which need to adopted by the company to overcome the core issue
CO414 PRJ .6	CREATING	CREATE an implementation plan for a company to adopt the CCPM principles

1. **Key concepts in CCPM:** Critical Chain, Project Buffer, Feeding Buffer. Key differences between CCPM and peer project management methodologies, problems due to which generally projects do not finish on time, within scope, cost and quality generic core issue which needs to be solved (6+1)
2. **Understand the generic CCPM Principles:** Generic CCPM Principles which help to overcome the core issues, how generic CCPM principles are applied in different project environments – Software projects, Engineer to Order Manufacturing (ETO), New Product Development, Real estate projects. For e.g., in Software projects CCPM can be combined with Agile. (4+1)
3. **Single Project CCPM :** Managing individual projects. The constraint of individual project is the longest path, critical chain. Identifying activities in the critical chain, location and sizing necessary project and feeding buffers, and predicting expected total project completion time. (4+1)
4. **Multi Project CCPM** : Managing Multi Project, The constraint in multi project environment is a critical resource or department (5+1)
5. **Case Studies in CCPM:** Analyze a specific company or organization in terms of its problems with handling projects; establish the core issue which needs to be solved for the company in order to manage projects better (6+1)

Suggested Text Books

1. Critical Chain, Dr Eliyahu Goldratt, 1997, North River Press https://www.amazon.in/Critical-Chain-Business-Eliyahu-Goldratt-ebook/dp/B002LHRM2E

Suggested Reference Books

1. Agile-CCPM-organizational-performance-significantly

Suggested Audio Visuals link

1. Production the TOC way (with simulator) at: https://northriverpress.com/production-the-toc-way-with-simulator/
2. A Guide to Implementing the Theory of Constraints (TOC) by Kelvyn Youngman: http://www.dbrmfg.co.nz

3. "What is TOC" videos: https://www.tocico.org/page/toc_portal
4. Basics of TOC videos: https://www.tocico.org/page/to7ic_basics_portal
5. The Goal movie: https://www.tocico.org/page/TheGoalMovieClip

Suggested Journals

1. TOC Insights for Operations, Finance & Measurements, Project Management & Engineering and Distribution & Supply Chain by Eli Goldratt and Rami Goldratt: www.toc-goldratt.com

Suggested Swayam Course

1. https://nptel.ac.in/courses/110/104/110104073/
2. https://nptel.ac.in/courses/110/107/110107081/
3. https://onlinecourses.nptel.ac.in/noc19_mg30/preview
4. https://nptel.ac.in/courses/106/105/106105218/