Savitribai Phule Pune University, Pune

Faculty of Commerce and Management

Curriculum 2025 Pattern
Master of Business Administration (MBA) – Fintech

2-year, 4 Semester Full time Programme

Choice Based Credit System (CBCS) and Grading System

Outcome Based Education Pattern

Aligned with National Education Policy (NEP) 2020

MBA - Fintech 1st year effective from AY 2025 - 26

MBA - Fintech 2nd year effective from AY 2026 - 27

MBA - Fintech - Revised Curriculum 2025
Pattern 2-year, 4 Semester Full time Programme
Choice Based Credit System (CBCS) and Grading System
Outcome Based Education Pattern
Aligned with NEP

MBA – Fintech I year effective from AY 2025 - 26

MBA– Fintech II effective from AY 2026 - 27

1.0 Preamble: The revised MBA – Fintech Curriculum 2025 integrates the National Education Policy, 2020 ethos with the Choice Based Credit System (CBCS) and Grading System and Outcomes Based Education (OBE)

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

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

Each credit is a combination of 3 components viz. Lecture (L) + Tutorials (T) + Practice (Practical / Project Work / Self Study) (P) i.e. LTP Pattern. Indicative LTP, for each course, is documented in the syllabus.

The course teacher may, with the consent of the Director / Head of the Department / Designated academic authority of the Institute, modify the LTP of the course in view of the course requirements, nature of the course, the level of learners and the type of pedagogy and assessment tools proposed.

2.1 **Session:** Each teaching-learning, evaluation session shall be of 60 minutes. However, institutes shall have the flexibility to define their time slots in a manner as to use their faculty and infrastructure resources in the best possible way and ensure effective learning & comply with the credit structure of the respective courses

2.2 **Course Announcement:** The institute shall announce the elective courses and specializations it proposes to offer the students out of the wider course basket. It is not mandatory to offer all the specializations and all the electives. However, in the spirit of Choice Based Credit System, institutes should offer choices to the students for the elective courses and not offer only the minimum number of electives.

2.3 **Course Registration:** It is mandatory for every student, to register every semester, for the courses opted for that semester. Each student, on admission shall be assigned to a Faculty Advisor who shall advise her/him about the academic programs and counsel on the choice of courses considering the student's profile, career goals and courses taken in the earlier semesters. With the advice and consent of the Faculty Advisor, the student shall register for a set of courses he/she plans to take up for the Semester. Students shall have to register for the courses for the semester within first week of Semester I and immediately after conclusion of the preceding term for subsequent Semesters II, III and IV.

3.0 MBA Fintech Programme Focus:

3.1 Programme Educational Objectives (PEOs):

1. **PEO1:** Graduates of the MBA Fintech program will *successfully integrate core, cross-functional and inter-disciplinary* aspects of management *theories, models and frameworks* with the *real-world practices* and the *sector specificnuances* to *provide solutions to real world business, policy and social issues* in a *dynamic and complex world*.
2. **PEO2:** Graduates of the MBA Fintech 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 asto manage *continuity, change, risk, ambiguity and complexity*.
3. **PEO3:** Graduates of the MBA Fintech 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 Fintech program will be ready to *engage in successful career pursuits* covering a broadspectrum of areas in *corporate, non-profit organizations, public policy, entrepreneurial ventures* and engage in *life-long learning*.
5. **PEO5:** Graduates of the MBA Fintech program will be recognized in their chosen fields for their *managerial competence, creativity & innovation, integrity & sensitivity* to local and global issues of social relevance and earn the *trust & respect* of others as *inspiring, effective and ethical leaders, managers, entrepreneurs, intrapreneurs* and change agents.

3.2 Programme Outcomes (POs): At the end of the MBA Fintech programme the learner will possess the

1. **Generic and Domain Knowledge -** Ability to articulate, illustrate, analyze, synthesize and apply the knowledge of principles and frameworks of management and allied domains to the solutions of real-world complex business issues
2. **Problem Solving & Innovation** - Ability to Identify, formulate and provide innovative solution frameworks to real world complex business and social problems by systematically applying modern quantitative and qualitative problem-solving tools and techniques.
3. **Critical Thinking** - Ability to conduct investigation of multidimensional business problems using research based knowledge and research methods to arrive at data driven decisions
4. **Effective Communication** - Ability to effectively communicate in cross-cultural settings, in technology mediated environments, especially in the business context and with society at large
5. **Leadership and Team Work** - Ability to collaborate in an organizational context and across organizational boundaries and lead themselves and others in the achievement of organizational goals and optimize outcomes for all stakeholders.
6. **Global Orientation and Cross-Cultural Appreciation:** Ability to approach any relevant business issues from a global perspective and exhibit an appreciation of Cross Cultural aspects of business and management.
7. **Entrepreneurship** - Ability to identify entrepreneurial opportunities and leverage managerial & leadership skills for founding, leading & managing startups as well as professionalizing and growing family businesses.
8. **Environment and Sustainability** - Ability to demonstrate knowledge of and need for sustainable development and assess the impact of managerial decisions and business priorities on the societal, economic and environmental aspects.
9. **Social Responsiveness and Ethics** - Ability to exhibit a broad appreciation of the ethical and value underpinnings of managerial choices in a political, cross-cultural, globalized, digitized, socio-economic environment and distinguish between ethical and unethical behaviors & act with integrity.
10. **LifeLong Learning** – Ability to operate independently in new environment, acquire new knowledge and skills and assimilate them into the internalized knowledge and skills.

3.3 Programme Specific Outcomes (PSOs):

PSO-1 : Comprehending Fintech Ecosystems and Their Infrastructure: Equip students with a comprehensive understanding of FinTech solutions, such as blockchain, digital payments, and cryptocurrency, while enabling them to understand and comprehend tech-driven financial services to meet the needs of India's evolving financial sector.

PSO-2 : Applying Fintech Innovations to Enhance Financial Transactions: Foster analytical and critical thinking abilities in students, enabling them to apply various fintech solutions such as block chain, algorithmic codes, digital payments and solve complex financial problems using Financial analytics, deep learning and other analytical tools within the FinTech domain.

PSO-3 : Evaluating AI and Machine Learning Models in FinTech Solutions: Students will assess the effectiveness of AI and machine learning models in developing FinTech solutions, such as robo-advisors and algorithmic trading, evaluating their benefits and risks. This will foster entrepreneurial thinking and innovation, empowering students to launch FinTech start-ups and drive financial inclusion and digital transformation in India.

PSO-4 : Designing RegTech Tools for Seamless Compliance and Risk Management: Develop a comprehensive understanding of the legal, regulatory, and ethical frameworks shaping India's FinTech landscape. Students will tackle challenges like data security, financial inclusion, and regulatory compliance (RBI, SEBI), while designing RegTech solutions to automate processes, including KYC, AML, and fraud detection, ensuring innovation within regulatory guidelines.

3.4 Graduate Attributes (GAs): At the end of the MBA – Fintech programme the learner shall exhibit:

GA1: Managerial competence

GA2: Proficiency in Communication, Collaboration, Teamwork and Leadership

GA3: Competence in Creativity & Innovation
GA4: Research Aptitude, Scholarship & Enquiry
GA5: Global Orientation
GA6: Proficiency in ICT & Digital Literacy
GA7: Entrepreneurship & Intrapreneurship Orientation
GA8: Cross-functional & Inter-disciplinary Orientation
GA9: Results Orientation
GA10: Professionalism, Ethical, Values Oriented & Socially Responsible behaviour
GA11: Life-Long Learning Orientation

4.0 PG Diploma and PG Degree (MBA- Fintech) Programme Structure as per NEP

Year	Level	Semester (2 Year)	Major		RM	OJT / FP	RP	Cumulative	Degree
			Mandatory	**Electives**					
I	6.0	Semester I	22 credits	4	-	-	-	26	
		Semester II	14 credits	4	4	4 FP	-	26	
Cumulativen Credits for PG Diploma			**36**	**8**	**4**	**4**	**-**	**52**	**PG Diploma (after 3 Year Degree)**
Exit option: PG Diploma 52 Credits after Three Year UG Degree (with additional 4 credits of OJT)									
II	6.5	Semester III	6	12	-	8 OJT	-	26	
		Semester IV	8	12	-	-	6RP	26	
			14	**24**	**-**	**08**	**06**	**52**	**PG Degree (after 4 -Years UG)**
Cum. Cr. for 2 Year PG Degree			**50**	**32**	**4**	**12**	**6**	**104**	**PG Degree (after 3 -Years UG)**

PG Diploma Programme Structure as per NEP								
Type	**Semester**	**Course Type**	**Number of Courses**	**Credits**	**Total Credits**	**FA**	**SA**	**Total**
Mandatory	I	Generic Core	6	3	18	240	360	600
Mandatory	I	Generic Core	2	2	4	0	120	120
Elective	I	Generic Elective	2	2	4	80	0	80
		TOTAL	**10**	**-**	**26**	**320**	**480**	**800**
Mandatory	II	Generic Core	4	3	12	160	240	400
Mandatory	II	Generic Core	1	2	2	0	60	60
Mandatory	II	Business Research Methods	1	2	2	-	60	60
Mandatory	II	Desk Research	1	2	2	40	0	40
Mandatory	II	Field Project	1	4	4	40	120	160
Elective	II	Generic Elective	2	2	4	80	0	80
		TOTAL	**10**	**-**	**26**	**320**	**480**	**800**
PG Diploma in Management (Fintech) after Three Year UG Degree (with additional 4 credits of OJT for Exitoption)			**20**	**-**	**52**	**640**	**960**	**1600**

- The students can exit the Programme after one year of MBA Fintech, but he has to take additional 4 Credits of On- job Training. To get **PG Diploma after Three Year UG Degree, he should earn total 52+4=56 Credits**
- Re-entry to complete the PG degree, after taking the exit option, will be permissible up to 05 years from the date of admission to the PG program
- The institute may conduct bridge courses for the respective students at the discretion of Director/ Head of the institutions

PG Degree Programme (MBA-Fintech) Structure as per NEP								
Type	**Semester**	**Course Type**	**Number of Courses**	**Credits**	**Total Credits**	**FA**	**SA**	**Total**
Mandatory	III	Generic Core	1	3	3	40	60	100
Mandatory	III	Subject Core	1	3	3	40	60	100
Mandatory	III	OJT (SIP)	1	8	8	80	120	200
Elective	III	Subject Elective	4	3	12	160	240	400
		TOTAL	**7**	**-**	**26**	**320**	**480**	**800**
Mandatory	IV	Generic Core	1	3	3	40	60	100
Mandatory	IV	Generic Core	1	2	2	0	60	60
Mandatory	IV	Subject Core	1	3	3	40	60	100
Mandatory	IV	Research Project	1	6	6	80	60	140
Elective	IV	Subject Elective	4	3	12	160	240	400
		TOTAL	**8**		**26**	**320**	**480**	**800**
PG Degree (MBA - Fintech) after Four-year UG Degree(Lateral Entry)			**15**		**52**	**640**	**960**	**1600**
PG Degree(MBA - Fintech) after Three years UG Degree			**35**		**104**	**1280**	**1920**	**3200**

4.1 Course Types

4.1.1 **Core courses** are the compulsory courses for all the students. Core courses are of two types: Generic Core & Subject Core.

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

4.1.3 **Subject Core:** are the compulsory courses for all the students.

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

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

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

4.1.6 **Subject Elective:** A 'Discipline centric' elective is called 'Subject Elective.' Subject Elective courses, in the Semester III and IV are focused on Fintech area.

4.1.7 **Research Methodology Courses:** These courses are focused on various aspects of Research. They include – Business Research Methods, Desk Research (DR) and Field Project (FP) in Semester II, On The Job Training (OJT) in Semester III and Research Project (RP) in Semester IV. ***DR, FP, OJT and RP shall be specific compulsory courses (subject core). BRM shall be a generic compulsory course.***

4.1.8 **Massive Open Online Courses (MOOCs)**: Massive Open Online Courses (MOOCs) are such online courses which are developed as per the pedagogy stated in the AICTE regulation (2016) or equiavelent; following the four-quadrant approach and made available on the SWAYAM platform of Government of India. **Upto 40% credits are permitted through MOOCS. Any Course of 2 Credits can be taken in the form of SWAYAM / NPTEL MOOCS provided the student secures the certificate from SWAYAM / NPTEL. MOOCs from other platforms shall not be considered valid. MOOCS cannot be opted for in case of a 3-credit course.**

5.0 Specializations offered: The following specializations shall be offered:

1. Marketing Management (MKT)
2. Financial Management (FIN)
3. Human Resources Management (HRM)
4. Operations & Supply Chain Management (OSCM)
5. Business Analytics (BA)
6. Agri -Business Management (ABM)
7. Pharma & Healthcare Management (PHM)

Note:

1. There is no provision for MAJOR and MINOR Specialization Combination.
2. Specialization shall be chosen at the BEGINNING of SEM III.
3. Desk Research, Field Project, On-the Job Training & Research Project shall be in the area of specialization only. i.e. these courses are SUBJECT CORE COURSES.
4. Institutes may offer ONLY SELECT specializations based on industry needs, faculty strength & competencies, student demands, employability potential, etc.
5. Institutes MAY NOT offer a specialization if a minimum of 20% of students are not registered for that specialization.
6. The Institute MAY NOT offer an elective course if a minimum of 20% of students are not registered for that elective course.

Note on Additional Specialisation:

Eligibility for opting a Additional Specialisation:

• The student must have successfully completed two years of the regular MBA program under SPPU.
• To be eligible, the student must have completed all compulsory generic courses such as:

Strategic Management, Entrepreneurship, Innovation and Design Thinking, Enterprise Performance Management, OJT, Research Project and any other core courses prescribed in the relevant curriculum. Criteria for pursuing the Additional Specialisation:
• The student must choose any one specialisation from the list of approved electives provided in the syllabus.
• The student is required to take one subject core and four subject elective courses in each semester (i.e., Semester III and Semester IV) from the selected specialisation.
• All academic and examination requirements for the additional specialisation must be fulfilled as per the university norms.

6.0 **Open Elective(s):**
1. There is no provision for Open Electives. Students may pursue additional specializations as per the relevant provisions.
6.1 **Formative Assesement (FA) / Comprehensive Concurrent Evaluation (CCE)**
The course teacher shall prepare the scheme of Comprehensive Concurrent Evaluation (Formative Assessment) before commencement of the term.
1. The scheme of Comprehensive Concurrent Evaluation shall explicitly state the linkages of each FA/ CCE with the Course Outcomes and define the targeted attainment levels for each CO. Graduate Attributes may also be considered during the design of CCE scheme.
2. The Director / Head of the Department / designated academic authority shall approve the scheme of Formative Assseement (FA) Comprehensive Concurrent Evaluation with or without modifications.
3. The course teacher shall communicate to the students, the approved FA/ CCE scheme of the course and the same shall also be hosted on the Institute's website, not later than the first week of the term.
4. Each FA/ CCE item shall be of minimum 25 marks.
5. For a 3 Credit Course there shall be a MINIMUM of three FA/CCE items. The final scores shall be converted to 40, 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 40.
7. FA/ 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.
8. The assessment outcome of each FA/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.
9. A copy of the duly signed FA/CCE outcome shall be communicated to the students, within a week of the assessment and course teachers shall guide the students on a need basis.
10. Institute may conduct additional make up / remedial FA/CCE items at its discretion.
11. At the end of the term aggregate FA/CCE scores / grades shall be calculated and the CO attainment levels shall be calculated by the course teacher. The same shall be communicated to the students within a week.

7.1 Formative Assessment (FA) / 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

7.2 Rubrics: The course teacher shall design Rubrics for each FA/CCE. Rubrics are scoring tools that define performance expectations for learners. The course teacher shall seek approval for the rubrics from the Director / Headof the Department / other designated competent academic authority of the institute. The course teacher shall share theapproved Rubrics with the students at the start of the course. The rubric shall detail the following:

1. Linkages of the FA/CCE to COs.
2. A description of the assessment - brief concept note
3. Criteria that will be assessed - the expected learning outcomes.
4. Descriptions of what is expected for each assessment component - the expectations from the student.
5. Substantive description of the expected performance levels indicating mastering of various components - the assessment criteria.
6. The team composition, if applicable.
7. The format and mode of submission, submission timelines
8. Any other relevant details.

7.3 Safeguards for Credibility of FA/CCE: The following practices are encouraged to enhance transparency and authenticity of concurrent evaluation:

1. Involving faculty members from other management institutes.
2. Setting multiple question paper sets and choosing the final question paper in a random manner.
3. One of the internal faculty members (other than the course teacher) acting as jury during activity based evaluations.
4. Involvement of Industry personnel in evaluating projects / field based assignments.
5. Involvement of alumni in evaluating presentations, role plays, etc.
6. 100% moderation of answer sheets, in exceptional cases.

7.4 Retention of FA/CCE Documents: Records of FA/CCE shall be retained for 3 years from the completion of theAcademic Year. i.e. **Current Academic Year (CAY) + 3 years.**

8.0 End Semester Evaluation (ESE)/ Summative Asssement (SA)

1. The End Semester Evaluation (Summative Evaluation) shall be conducted by the Savitribai Phule Pune University.
2. The ESE/SA shall have 5 questions each of 12 marks.
3. All questions shall be compulsory with internal choice within the questions.
4. The broad structure of the ESE/SA question paper shall be as follows:

Question Number	COGNITIVE ABILITIES EVALUATED	Nature
Q.1	REMEMBERING	Answer any 6 out of 9 (2 marks each)
Q.2	UNDERSTANDING	Answer any 2 out of 3 (6 marks each)
Q.3	APPLYING	Answer 3 (a) or 3 (b) (12 marks)
Q.4	ANALYSING	Answer 4 (a) or 4 (b) (12 marks)
Q.5	EVALUATING	Answer 5 (a) or 5 (b) (12 marks)
	CREATING	

9.0 Programme Flexibility:

9.1 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 & Subject Elective 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 Fintech programme.

9.2 Credit Transfer for MOOCs:

1. 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.
2. 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.
3. For claiming these credits - SWAYAM / NPTEL course / MOOC completion certificate submission to the institute shall be mandatory

10.0 Additional Specialization:

1. **A student who has completed the MBA Fintech programme under this pattern may enroll for additionalspecialization after passing out the regular MBA Fintech programme.**
2. Such students will be exempted from appearing for all the generic core and generic elective courses.
3. Such students shall have to appear for the subject core, subject elective courses, DR, FP, OJT and RP of the additional specialization that they have opted for.

11.0 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.
3. To progress to next academic year a student must earn at least 50% of the total credits.

12.0 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.

13. Miscellaneous

1. **Scaling Down of CCE/FA Scores:** The marks obtained by the student for the CCE/FA SHALL BE SCALED DOWN, to the required extent, if percentage of the marks of CCE/FA exceeds the percentage of marks scored in the ESE (End Semester University Examination) by 25% for the respective course.
2. **Degree Requirements:** The degree requirements for the MBA-Fintech programme are completion of minimum 104 credits.
3. Maximum Attempts per Course:
   A student shall earn the credits for a given course in maximum FOUR attempts.
4. **Maximum Duration for completion of the Programme:** The candidates shall complete the MBA-Fintech Programme **within 4 years** from the date of admission.
5. **Attendance:** The student must meet the requirement of **75% attendance per semester per course** for grant ofthe 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.
6. **Text Books and Reference Books** refer to the latest edition.
7. **Medium of Instruction:** The medium of Instruction & Evaluation shall be English.
8. **Grade Improvement:**
   - A Candidate who has secured any grade other than F (i.e. passed the MBA- Fintech programme) and desires to avail the Grade Improvement option, may apply under Grade Improvement Scheme within five years from passingthat Examination.
   - He/she can avail not more than three attempts, according to the syllabus in existence, for grade improvement.
   - He /she shall appear for University Evaluation of **at least 1/3rd** of the Generic Core / Subject Core Courses (except OJT) for the purpose of Grade Improvement.

Annexures: **Annexure I – Semester wise Course List.**
Annexure II - Detailed syllabus.

Annexure I – LIST OF COURSES OFFERED IN EACH SEMESTER

SEMESTER I							
Type	**Sem Code**	**Course Code**	**Course**	**Credits**	**FA**	**SA**	**Marks**
Mandatory	101	GC – 01	Managerial Accounting	3	40	60	100
Mandatory	102	GC – 02	Organizational Behaviour	3	40	60	100
Mandatory	103	GC – 03	Economic Analysis for Business Decisions	3	40	60	100
Mandatory	104	GC – 04	Basics of Marketing	3	40	60	100
Mandatory	105	GC – 05	Business Analytics	3	40	60	100
Mandatory	106	GC – 06	Decision Science	3	40	60	100
Mandatory	107	GC – 07	Management Fundamentals	2	0	60	60
Mandatory	108	GC – 08	Indian Knowledge Systems	2	0	60	60
	CORE TOTAL		**8**	**22**	**240**	**480**	**720**
Semester I Generic Electives - Any 2 Courses to be Opted from the following list							
Elective	109	GE 01	Business Communication-I	2	40	0	40
Elective	110	GE 02	Technology Tools in Business Management -I	2	40	0	40
Elective	111	GE 03	Environmental, Social, and Governance (ESG)	2	40	0	40
Elective	112	GE 04	Demand Analysis & Forecasting	2	40	0	40
Elective	113	GE 05	Geopolitics & World Economic Systems	2	40	0	40
Elective	114	GE 06	Contemporary Frameworks in Management	2	40	0	40
Elective	115	GE 07	Essentials of Psychology for Managers	2	40	0	40
	ELECTIVE TOTAL		**2**	**4**	**80**	**0**	**80**
	SEMESTER TOTAL		**10**	**26**	**320**	**480**	**800**

SEMESTER II							
Type	**Sem Code**	**Course Code**	**Course**	**Credits**	**FA**	**SA**	**Marks**
Mandatory	201	GC – 09	Marketing Management	3	40	60	100
Mandatory	202	GC – 10	Financial Management	3	40	60	100
Mandatory	203	GC – 11	Human Resources Management	3	40	60	100
Mandatory	204	GC – 12	Operations & Supply Chain Management	3	40	60	100
Mandatory	205	GC - 13	Legal Aspects of Business	2	0	60	60
	CORE TOTAL		**5**	**14**	**160**	**300**	**460**
Mandatory	206	RM - 01	BRM	2	-	60	60
Mandatory	207	RM - 02	Desk Research	2	40	0	40
Mandatory	208	RM - 03	Field Project	4	40	120	160
	RESEARCH TOTAL		**3**	**8**	**80**	**180**	**260**
Semester II Generic Electives - Any 2 Courses to be Opted from the respective elective list							
Elective	209	GE 08	Business Communication-II	2	40	0	40
Elective	210	GE 09	Technology Tools in Business Management -II	2	40	0	40
Elective	211	GE 10	Sustainable Development Goals	2	40	0	40
Elective	212	GE 11	Selling & Negotiation Skills Lab	2	40	0	40
Elective	213	GE 12	Indian Economy	2	40	0	40
Elective	214	GE 13	International Business Environment	2	40	0	40
Elective	215	GE 14	Business Ethics	2	40	0	40
	ELECTIVE TOTAL		**2**	**4**	**80**	**0**	**80**
	SEMESTER TOTAL		**10**	**26**	**320**	**480**	**800**

SEMESTER III							
	Sem Code	**Course Code**	**Course**	**Credits**	**FA**	**SA**	**Marks**
Mandatory	301	GC – 14	Strategic Management	3	40	60	100
Mandatory	302	SC - 01	Advanced Financial Management	3	40	60	100
	CORE TOTAL		**2**	**6**	**80**	**120**	**200**
Mandatory	303	OJT (SC)	On the Job Training	8	80	120	200
OJT TOTAL			**1**	**8**	**80**	**120**	**200**
Semester III Specialization Electives - Any 4 Courses to be Opted from the respective elective list							
Elective	304	SE 01	Introduction to Fintech	3	40	60	100
Elective	305	SE 02	Financial modelling with Excel	3	40	60	100
Elective	306	SE 03	Financial Risk Analysis	3	40	60	100
Elective	307	SE 04	Fundamental and Technical Analysis	3	40	60	100
Elective	308	SE 05	Global Financial Market	3	40	60	100
Elective	309	SE 06	Personal Finance and Wealth Management	3	40	60	100
Elective	310	SE 07	Fintech Regulation & Ethics	3	40	60	100
Elective	311	SE 08	Budgetary Control and Variance Analysis Using Spreadsheets	3	40	60	100
ELECTIVE TOTAL			**4**	**12**	**160**	**240**	**400**
SEMESTER TOTAL			**7**	**26**	**320**	**480**	**800**
SEMESTER IV							
	Sem Code	**Course Code**	**Course**	**Credits**	**FA**	**SA**	**Marks**
Mandatory	401	GC – 15	Entrepreneurship, Innovation and Design Thinking	3	40	60	100
Mandatory	402	GC - 16	Enterprise Performance Management	2	0	60	60
Mandatory	403	SC - 02	Financial Markets and Banking Operations	3	40	60	100
CORE TOTAL			**3**	**8**	**80**	**180**	**260**
Mandatory	404	RP	Research Project	6	80	60	140
RESEARCH PROJECT TOTAL			**1**	**6**	**80**	**60**	**140**
Semester IV Specialization Electives - Any 4 Courses to be Opted from the following list							
Elective	405	SE 09	Current Trends in Fintech	3	40	60	100
Elective	406	SE 10	Basic R Programming in Fintech Management	3	40	60	100
Elective	407	SE 11	Digital Payment Systems	3	40	60	100
Elective	408	SE 12	Blockchain & Its Applications	3	40	60	100
Elective	409	SE 13	Algorithmic Trading	3	40	60	100
Elective	410	SE 14	Budgetary Control and Variance Analysis Using Spreadsheets	3	40	60	100
Elective	411	SE 15	Data Security for Fintech	3	40	60	100
Elective	412	SE 16	Financial Analytics	3	40	60	100
ELECTIVE TOTAL			**4**	**12**	**160**	**240**	**400**
SEMESTER TOTAL			**8**	**26**	**320**	**480**	**800**
PROGRAMME TOTAL			**35**	**104**	**1280**	**1920**	**3200**

Annexure II – COURSE WISE DETAILED SYLLABUS

Semester I

Semester I	101	GC 01 – 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
CO 101.1	REMEMBERING	DESCRIBE the basic concepts related to Accounting, Financial Statements, Cost Accounting, Marginal Costing, Budgetary Control and Standard Costing
CO 101.2	UNDERSTANDING	EXPLAIN in detail, all the theoretical concepts taught through the syllabus.
CO 101.3	APPLYING	PERFORM all the necessary calculations through the relevant numerical problems.
CO 101.4	ANALYSING	ANALYSE the situation and decide the key financial as well as non-financial elements involved in the situation.
CO 101.5	EVALUATING	EVALUATE the financial impact of the decision.
CO 101.6	CREATING	CREATE the Financial Statement of Sole Proprietor, Cost Sheet and Budgets

1 **Basic Concepts:** Forms of Business Organization. Meaning and Importance of Accounting in Business Organization, Basic concepts and terms used in accounting, Capital & Revenue Expenditure, Capital & Revenue Receipts, Users of Accounting Information. Accounting Concepts and Conventions, Fundamental Accounting Equation, Ancient Indian / Mahajani Accounting System – history, Bahi – Khata, advantages & Limitations, Indian Accounting System v/s Modern Accounting System, 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, Types of Cost, Elements of Cost, Classification and Analysis of Costs, Preparation of Cost Sheet. **(8 + 2)**

4. **Marginal Costing**: Meaning, Principles, Advantages and Limitations, Contribution, P/V Ratio, Break-Even Point (BEP), Cost Volume Profit (CVP) Analysis **(8 + 2)**

5. **Cost Control Techniques: Budgetary Control & Standard Costing: Budgetary Control:** Meaning of Budget and Budgeting, Importance, Advantages and Disadvantages, 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. **(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
4. Cash Budget, Flexible Budget
5. Material Variances

Suggested 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. Shriprakash Soni
4. Management Accounting - Dr. Mahesh Kulkarni
5. Bahi – Khata: The Traditional Accounting System of India – A. N. Aggarwal
6. Ancient India Accountancy: A Study – Krishna Mohan Tummala

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
13. The Arthashastra: Selections from the Classic Indian Work on Statecraft – Kautilya (Edited by Patrick Olivelle)
14. Kautilya's Arthashastra – Translated into English by R. Shamasastry

Semester I	**102**	**GC 02 - 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
CO 102.1	REMEMBERING	Describe complexities of individual and group behavior in the organizations
CO 102.2	UNDERSTANDING	Explain the implications of organizational behavior from the perspectives of employees, managers, leaders and the organization.
CO 102.3	APPLYING	APPLY Theories, Models, Principles and Frameworks of organizational behavior in specific organizational settings
CO 102.4	ANALYSING	ANALYZE human behavioural problems like conflict, low motivational levels, politics, attitudinal issues etc. and develop solutions to these problems.
CO 102.5	EVALUATING	FORMULATE approaches to reorient individual, team, managerial and leadership behavior in order to achieve organizational goals.
CO 102.6	CREATING	DEVELOP strategies for challenges faced during shaping organizational behavior, organizational culture and organizational change.

1. **Fundamentals of OB:** Definition, scope and importance of OB, Relationship between OB and the individual, Evolution of OB, Models of OB (Autocratic, Custodial, Supportive, Collegial & SOBC). **Personality:** Definition-Personality, importance of personality in Performance, The Myers-Briggs Type Indicator and The Big Five personality model, Johari Window. Relevant case studies on personality **(7+2)**
2. **Perception:** Meaning and concept of perception, Factors influencing perception, Perceptual process, social perception (stereotyping and halo effect) Relevant case studies on Perception **(7+2)**
3. **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 Theoryof Work Motivation. Relevant case studies on Motivation **(7+2)**
4. **Group and Team Dynamics:** The Meaning of Group, Group behaviour & 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, leadership principles from Indian epics and scriptures (e.q. Ramayana and Mahabharata), Managerial Grid Theory of Leadership, Path Goal Theory of leadership and Situational Leadership (Hersey-Blanchard) Model. Relevant case studies on Group dynamics and Leadership **(8+2)**
5. **Stress at workplace**: Work Stressors – Prevention and Management of stress – counselling, Importance of Yoga in Stress Management, Balancing work and Life, causes of work stress. **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. Relevant case studies on stress management and organizational change **(6+2)**

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**	**GC 03 – 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**
CO 103.1	REMEMBERING	DEFINE the key terms in micro-economics.
CO 103.2	UNDERSTANDING	EXPLAIN the keyterms in micro-economics, from a managerial perspective.
CO 103.3	APPLYING	IDENTIFY the various issues in an economics context and DEMONSTRATE their significance from the perspective of business decision making.
CO 103.4	ANALYSING	EXAMINE the inter-relationships between various facets of micro-economics from the perspective of a consumer, firm, industry, market, competition and business cycles.
CO 103.5	EVALUATING	DEVELOP critical thinking based on principles of micro-economics for informed business decision making.
CO 103.6	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+2)**

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	GC 04 – Basics Of Marketing
3 Credits	**LTP: 2:0:2**	**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	**RECALL** and **REPRODUCE** the various concepts, principles, frameworks and terms related to the function and role of marketing.
CO104.2	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.
CO104.3	APPLYING	**APPLY** marketing principles and theories to the demands of marketing function and practice in contemporary real-world scenarios.
CO104.4	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).
CO104.5	EVALUATING	**EXPLAIN** the interrelationships between segmentation, targeting and positioning, marketing environment, consumer buying behavior, marketing mix and Product Life Cycle with real world examples.

CO104.6	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**: Evolution of marketing in India from ancient times to the present day. Definition & Functions of Marketing- Scope of Marketing, Core concepts of marketing –Customer Delight, Customer loyalty, Concepts of Markets, Marketing V/S Market, Competition, Key customer markets, Brick & Click Model, Functions of Marketing Manager, Linkage of Marketing functions with all functions in the organization, Company orientation towards market place: Production - Sales – Product-Marketing –Societal – Relational, Holistic Marketing Orientation, Selling versus marketing, Marketing 1.0 to Marketing 6.0, Concept of Marketing Myopia, Digital Natives, informed Vs Distracted customers, Integrating Traditional Marketing, digital Marketing and Sustainable Marketing, Digital Transformation in Marketing: AI, big data, and machine learning transforming marketing strategies, Customer Experience (CX), Sustainable Marketing **(6+6)**
2. **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, Neuromarketing, Omnichannel Consumer Behaviour, Behavioral Economics. How People buy Online, Adoption process- Awareness to Advocacy –Aware, Appeal, Ask, Act, Advocate (5As) and The O Zone (O3) Own, Outer and Other influence, Show rooming and Web rooming, Consumerization **(6+6)**
3. **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, Environmental, Social, and Governance (ESG) Factors, Technological Innovations, Regulatory Changes, role of joint families, community networks, and local influencers in marketing, impact of Indian festivals (e.g., Diwali, Holi, Eid) and cultural events (e.g., Kumbh Mela, local fairs) on consumer spending and marketing strategies **(6+6)**
4. **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, Influencer Marketing, Forrester's Social Technographics segmentation **(6+6)**
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. Digital Marketing Mix, Customer Journey Mapping, Service-Dominant Logic, Connected Marketing Mix -four C's (co-creation, currency, communal activation, and Conversation). **(6+6)**

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
5. "Indian Marketing: Cases and Concepts" by S. Neelamegham
6. "Marketing in India: Text and Cases" by S. Ramesh Kumar

Semester I	105	GC 05 - Business Analytics
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
CO 105.1	REMEMBERING	Recall the fundamental concepts and terminologies in business analytics
CO 105.2	UNDERSTANDING	Explain the differences between business analytics and related fields (e.g., business analysis, business intelligence, data science), as well as the ethical considerations and qualityof data in business analytics and key applications of business analytics.
CO 105.3	APPLYING	Utilize basic tools of business analytics, such as data exploration and visualization tools, to perform basic exploratory data analysis and data cleaning tasks.
CO 105.4	ANALYSING	Break down business problems into key questions and analyze data to derive meaningful insights for decision-making in various business domains like marketing, finance, HR, operations, health care, and agri-business
CO 105.5	EVALUATING	Assess the effectiveness of different data-driven strategies and analytical techniques in improving business performance across different sectors through case studies
CO 105.6	CREATING	Design and propose data-driven solutions and strategies to address complex business challenges, integrating knowledge from marketing, finance, HR, operations, health care, and agri-business analytics.

1. **Business Analytics Basics:** Definition of analytics, Evolution of analytics, The Growing Role of Business Analytics, Business analytics vs business analysis, Business intelligence vs Data Science, Data Analyst Vs Business Analyst, Types of Analytics - Descriptive, Diagnostic, Predictive, Prescriptive, Concept of insights. Importance of data in business analytics, Differences between data, information and knowledge, Quality of data, 5Vs of Big Data, Big Data Collection and Ethics, Data sources and collection methods, Data privacy, security, and ethical considerations. **(7+2)**
2. **Analytical decision-making:** Analytical decision-making process, characteristics of the analytical decision-making process. Breaking down a business problem into key questions that can be answered through analytics, Characteristics of good questions, Skills of a good business analyst, The Basic Tools of Business Analytics - Data exploration and visualization (using tools like Excel, Tableau, or Power BI), Concept of Statistical analysis and hypothesis testing (Hypothesis testing numerical / tests not expected) Data Visualization: Concept of Data Visualization, Popular Data Visualization tools, Exploratory Data Analysis(EDA), Data Cleaning, Data Inspection. **(7+2)**
3. **Business Analytics in Marketing and Finance:** Marketing Analytics, Customer segmentation, targeting, and positioning, Campaign management and ROI measurement, Data-driven marketing strategies. Financial Analytics - Risk management and credit scoring, Financial forecasting and planning, Case studies: Financial performance improvement through analytics (Non-Statistical - Conceptual Treatment only). **(7+2)**
4. **Business Analytics in HR and Operations:** HR Analytics, Workforce planning and talent management, Employee engagement and performance measurement, Case studies: Enhancing HR practices with analytics. Operations Analytics - Process optimization and efficiency improvement, Supply chain analytics and logistics management, Case studies: Operational excellence through analytics Non-Statistical - Conceptual Treatment only). **(7+2)**
5. **Business Analytics in Health Care and Agri Business:** Health Care Analytics - Patient care optimization and resource management, Predictive analytics for health outcomes, Case studies: Improving health care delivery with analytics. Agri Business Management Analytics - Crop yield prediction and supply chain management, Market analysis and risk management in agriculture, Case studies: Enhancing agricultural productivity with analytics Non-Statistical - Conceptual Treatment only). **(7+2)**

Suggested Text Books:

1. Davenport, T. H., & Harris, J. G. (2007). “Competing on analytics: The new science of winning”. Harvard Business School Press.
2. Provost, F., & Fawcett, T. (2013). “Data science for business: What you need to know about data mining and data-analytic thinking”. O'Reilly Media.
3. Sharda, R., Delen, D., & Turban, E. (2019). “Business intelligence, analytics, and data science: A managerial perspective” (4th ed.). Pearson.
4. Hastie, T., Tibshirani, R., & Friedman, J. (2009). “The elements of statistical learning: Data mining, inference, and prediction” (2nd ed.). Springer.
5. Knaflic, C. N. (2015). “Storytelling with data: A data visualization guide for business professionals”. Wiley.
6. Pearl, J., & Mackenzie, D. (2018). “The book of why: The new science of cause and effect”. Basic Books.
7. Lewis, M. (2016). “Marketing data science: Modeling techniques in predictive analytics with R and Python”. Pearson FT Press.
8. Siegel, E. (2016). “Predictive analytics: The power to predict who will click, buy, lie, or die”. Wiley.
9. Winston, W. L. (2014). “Marketing analytics: Data-driven techniques with Microsoft Excel”. Wiley.
10. Narayanan, A., & Bhattacharya, A. (2023). “Big data in finance: Data analytics in financial services and banking”. Wiley.
11. Fitz-enz, J. (2010). “The new HR analytics: Predicting the economic value of your company's human capital investments”. AMACOM.
12. Raghupathi, W., & Raghupathi, V. (2014). “Big data analytics in healthcare: Promise and potential”. Health Information Science and Systems, 2(1), 1-10.
13. Simchi-Levi, D., Kaminsky, P., & Simchi-Levi, E. (2007). “Designing and managing the supply chain: Concepts, strategies, and case studies” (3rd ed.). McGraw-Hill/Irwin.

Semester I	**106**	**GC 06 – 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**
CO 106.1	REMEMBERING	DESCRIBE the concepts and models associated with Decision Science.
CO 106.2	UNDERSTANDING	UNDERSTAND the different decision-making tools required to achieve optimization in business processes.
CO 106.3	APPLYING	APPLY appropriate decision-making approach and tools to be used in business environment.
CO 106.4	ANALYSING	ANALYSE real life situation with constraints and examine the problems using different decision-making tools
CO 106.5	EVALUATING	EVALUATE the various facets of a business problem and develop problem solving ability
CO 106.6	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. **Linear Programming:** Concept, Formulation & Graphical Solution. Applications related to management functional areas, Formulation of L.P. Problems, Graphical Solutions (Special cases: Multiple optimal solution, infeasibility, unbounded solution). **(7+2)**
2. **Transportation Problems:** Concept, formulation, Basic initial solution using North West Corner rule, Least Cost method & Vogel’s Approximation Method (VAM), Optimal solution using Modified Distribution Method (Special cases: balanced, unbalanced, restriction, prohibited routes and maximization). Concept of degeneracy. **(7+2)**

3. **Assignment Problems**: Concept, Flood's Technique/ Hungarian method, (Special cases: multiple solutions, maximization case, unbalanced case, restrictions on assignment) **(7+2)**
4. **Decision Theory**: Concept, Decision making under uncertainty (Maximin, Maximax, Minimax regret, Hurwicz & Laplace principles), Decision making under risk (EMV, EVPI) for items with and without salvage value. Game Theory: Concept, two-person Zero-Sum games, Maximin Minimax Principle, Games without Saddle point- Mixed strategy, Dominance Rule- Reduction of m x n game and solution of 2×2. **(7+2)**
5. **PERT & CPM:** Concept, Drawing network diagram, identifying critical path, Network calculations- calculating EST, LST, EFT, LFT, Slack, floats. Programme evaluation and review technique (PERT). **(7+2)**

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

Semester I	**107**	**GC 07 – Management Fundamentals**
2 Credits	**LTP: 1:1:1**	**Compulsory Generic Core Course**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 107.1	REMEMBERING	ENUMERATE various managerial competencies and approaches to management.
CO 107.2	UNDERSTANDING	EXPLAIN the role and need of Planning, Organizing, Decision Making and Controlling.
CO 107.3	APPLYING	MAKE USE OF the principles of goal setting and planning for simple as well as complex tasks and small projects.
CO 107.4	ANALYSING	COMPARE and CONTRAST various organizational structures of variety of business and not-for-profit entities in a real-world context.
CO 107.5	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.
CO 107.6	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. **(6)**

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. **(6)**
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

1.

Semester I	108	GC 08 – Indian Knowledge Systems
2 Credits	LTP: 2:0:0	Compulsory Generic Core Course

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 108.1	REMEMBERING	RECALL key teachings and themes from the Bhagavad Gita, and identify significant events and principles from the life of Shivaji Maharaj.
CO 108.2	UNDERSTANDING	EXPLAIN the role of values, ethics, and spirituality in leadership and organizational culture as taught in the Bhagavad Gita, and summarize Shivaji Maharaj's leadership qualities.
CO 108.3	APPLYING	APPLY principles of self-awareness, self-management, and emotional intelligence from the Bhagavad Gita to real-world leadership scenarios.
CO 108.4	ANALYSING	COMPARE and contrast Indian Knowledge Systems (IKS) with Western Management Theories (WMT), particularly in terms of leadership styles, decision-making frameworks, and ethical considerations

CO 108.5	EVALUATING	EVALUATE the effectiveness of Jugaad innovations in various sectors and assess the impact of familyand community roles in Indian business practices
CO 108.6	CREATING	DESIGN strategic leadership plans that integrate the principles of the Bhagavad Gita and Shivaji Maharaj's governance strategies to address contemporary organizational challenges

1. **Leadership and Organizational Behavior from Bhagavad Gita:** Overview of the Bhagavad Gita, Historical and cultural context, Key themes and teachings, Role of values, ethics and spirituality in leadership and organizational culture, Motivation, Self-awareness and self-management principles, Developing resilience and emotional intelligence, Inspiring and motivating teams, Team dynamics and conflict resolution in Indian traditions, Gita-based decision-making frameworks, Conflict resolution strategies, Servant leadership principles, Building high-performance teams, Ethical dilemmas and decision-making, Reflection and personal growth exercises **(5+1)**
2. **Insights and Lessons from the life of Shivaji Maharaj:** Overview of Shivaji Maharaj's life, historical context, Dharma, Raj Dharma, and Artha, Leadership qualities of Shivaji Maharaj - Leadership in adversity, Leadership styles and effectiveness in different contexts, Shivaji Maharaj's strategic vision and planning, Innovative strategies in warfare and governance, Principles of governance in Shivaji's kingdom, Administration structures and decision-making processes, Efficient and ethical governance, Shivaji Maharaj as an entrepreneur and nation-builder, Economic policies and trade strategies, Cultural values in Shivaji's leadership, Balancing tradition with modernity in leadership, Relevance of Shivaji Maharaj's leadership in contemporary management and leadership. **(5+1)**
3. **Comparative Analysis of Indian Knowledge Systems and Western Management Theories:** Overview of IKS: Vedas, Upanishads, Darshanas, Overview of Western management theories (WMT), Philosophical foundations and cultural contexts; Individualism (IKS) vs. Collectivism (WMT), Hierarchical structures (IKS) vs. egalitarianism (WMT) , Holistic decision-making (IKS) vs. analytical approaches (WMT), Intuition and gut feelings (IKS) vs. data-driven decision-making (WNT), Work-life balance: Concepts of Karma and Dharma vs. Western work ethic, IKS emphasis on sustainability vs. Western focus on short-term gains, Strategic alignment with societal goals: IKS principles vs. shareholder value maximization in the West, Synergies and integration of IKS and Western management practices. **(5+1)**
4. **Indigenous Management Practices and Frameworks – Jugaad:** Jugaad - Definition and Principles, Key principles of frugal innovation, Historical context and cultural significance in India; The Jugaad Mindset, Characteristics of a Jugaad innovator, Comparison with conventional innovation models, Importance of resourcefulness and creativity, Case Studies of Jugaad Innovation, Analysis of successful Jugaad innovations in India, impact on communities and industries, Sector-Specific Case Studies – Healthcare, Agriculture, Automobiles, Education, etc., Scaling Jugaad Innovations, Sustaining Jugaad Innovations, Frugal innovation in other countries, Emerging trends and technologies in frugal innovation. **(5+1)**
5. **Indigenous Management Practices and Frameworks - The role of family and community in Indian business:** Historical context of family and community roles in Indian business, Joint family systems, Community Networks, Characteristics of family-owned businesses, Leadership styles, Cooperative movements in India, Social enterprises and their impact on local communities, Role of community support in business sustainability, Cultural values and their influence on business ethics, Role of traditional values in contemporary business practices, Ethical decision-making influenced by family and community, Corporate Social Responsibility in the Indian context, Community engagement strategies, Challenges faced by family and community businesses, Succession planning, leadership transition, Conflict resolution, Opportunities for growth and innovation, Adapting traditional practices to modern business environments, Emerging trends and their impact on family and community roles, Technology and globalization's influence on traditional practices. **(5+1)**

Suggested Text Books:

1. "The Bhagavad Gita: A New Translation" by Stephen Mitchell
2. "The Essence of the Bhagavad Gita: Explained by Paramhansa Yogananda" by Swami Kriyananda
3. "The Bhagavad Gita: A New Commentary" by Swami Sivananda
4. "Bhagavad Gita: A New Translation" by Swami Satchidananda
5. "The Bhagavad Gita for Executives" by Swami Parthasarathy
6. "Bhagavad Gita: A New Interpretation for Modern Times" by Stephen Cope
7. "Shivaji: The Great Maratha" by Ranjit Desai
8. "Shivaji and His Times" by Jadunath Sarkar
9. "The Life and Times of Shivaji Maharaj" by Kalpana Roy

10. "Leadership Lessons from the Life of Shivaji Maharaj" by Shubhada Joshi
11. "Management Insights from Indian Spirituality" by A.V. Narasimha Murthy
12. "Western and Indian Management: Exploring Synergies" by Vipin Gupta
13. "Ancient Indian Wisdom for Self-Development" by Pradip N. Khandwalla
14. "Indian Ethos and Values in Management" by Sankar
15. "East Meets West: Asian Management Approaches" by Kimio Kase
16. "Comparative Management: A Cultural Perspective" by Malcolm Warner
17. "Jugaad Innovation: Think Frugal, Be Flexible, Generate Breakthrough Growth" by Navi Radjou, Jaideep Prabhu, and Simone Ahuja
18. "Frugal Innovation: How to Do More with Less" by Navi Radjou and Jaideep Prabhu
19. "Reverse Innovation in Healthcare: How to Make Value-Based Delivery Work" by Vijay Govindarajan and Ravi Ramamurti
20. "The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail" by Clayton Christensen
21. "Frugal Innovation: How to Do More with Less" by Navi Radjou and Jaideep Prabhu
22. "Jugaad: A New Growth Formula for Corporate India" by Sangeeta Talwar
23. "Family Business in India" by R.G. Verma
24. "Business Maharajas" by Gita Piramal
25. "The Indian Family Business Mantra" by D.N. Ghosh
26. "The Spirit of Indian Business" by Elst W. Koenraad
27. "Family Business in India: A Historical and Socio-cultural Perspective" by Dev Nathan
28. "The Indian Family Business" by Frank K. Gunderson and Bruce R. Kunkel
29. "The Tata Group: From Torchbearers to Trailblazers" by Shashank Shah
30. "The Z Factor: My Journey as the Wrong Man at the Right Time" by Subhash Chandra
31. "Dabbawalas: Lessons for Building Lasting Success Based on Values" by Shrinivas Pandit

Indicative Case Studies

1. Amul: The Cooperative Movement - Focus: Cooperative model, rural empowerment, supply chain management.
2. The Dabbawalas of Mumbai - Focus: Operational excellence, Six Sigma, traditional logistics systems, Supply chain efficiency, customer satisfaction.
3. Fabindia: Crafting Success- Focus: Handicrafts, sustainable sourcing, social entrepreneurship.
4. Tata Group: Pioneering Corporate Social Responsibility- Focus: CSR practices, ethical business, community development.
5. Jaipur Foot: Affordable Prosthetics - Focus: Social innovation, frugal engineering, inclusive growth.
6. Patanjali: Revolutionizing FMCG - Focus: Ayurvedic products, brand positioning, market disruption.
7. SEWA (Self-Employed Women's Association): Empowering Women - Focus: Women empowerment, microfinance, cooperative movement.
8. ITC's e-Choupal: Digitizing Rural India - Focus: E-commerce, rural development, supply chain integration.
9. Lijjat Papad: Women's Cooperative - Focus: Women entrepreneurship, cooperative model, business sustainability.
10. Haldiram's: Traditional Snacks, Modern Business - Focus: Brand evolution, quality management, market expansion.
11. Reliance Jio: Disrupting Telecom - Focus: Market disruption, technology adoption, customer acquisition.
12. Tata Nano: The World's Cheapest Car - Focus: Frugal innovation, product development, market challenges.
13. Biocon: Building a Global Biotech Company - Focus: Research and development, strategic alliances, global expansion.
14. Shahnaz Husain: Globalizing Ayurveda - Focus: Brand building, international marketing, traditional knowledge.
15. Cafe Coffee Day: Creating a Coffee Culture - Focus: Brand positioning, customer experience, market expansion.
16. Mahindra & Mahindra: Driving Innovation - Focus: Product diversification, innovation strategies, global expansion.
17. Godrej: From Locks to Consumer Goods - Focus: Diversification, brand evolution, sustainability practices.
18. Infosys: Leadership and Growth - Focus: Corporate governance, employee empowerment, innovation.

19. Tata Steel: Global Expansion and CSR - Focus: Globalization, corporate social responsibility, sustainable practices.
20. Zomato: Revolutionizing Food Delivery in India - Focus: Technology integration, customer engagement, market expansion.

Semester I	109	GE 01 – Business Communication -I
2 Credits	LTP: 0:2:2	Generic Elective

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 109.1	REMEMBERING	RECOGNIZE the various elements of communication, channels of communication and barriers to effective communication.
CO 109.2	UNDERSTANDING	EXPRESS themselves effectively in routine and special real world business interactions.
CO 109.3	APPLYING	DEMONSTRATE appropriate use of body language.
CO 109.4	ANALYSING	TAKE PART IN professional meetings, group discussions, telephonic calls, elementary interviews and public speaking activities.
CO 109.5	EVALUATING	APPRAISE the pros and cons of sample recorded verbal communications in a business context.
CO 109.6	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:The entire course should be delivered with a skills development focus.

1. 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	110	GE 02 – Technology Tools in Business Management-I
2 Credits	LTP: 0:0:4	Generic Elective

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 110.1	REMEMBERING	Recall the basic functions and features of MS Word, MS PowerPoint, and MS Excel.
CO 110.2	UNDERSTANDING	Explain the purpose and use of different tools and functions in MS Word, MS PowerPoint, and MS Excel.
CO 110.3	APPLYING	Utilize the basic features of these tools to create business documents, presentations, and spreadsheets.
CO 110.4	ANALYSING	Examine the interrelationships between different tools and their applications in business scenarios
CO 110.5	EVALUATING	Assess the effectiveness of various formatting and data management techniques in real-world tasks.
CO 110.6	CREATING	Develop comprehensive business reports, presentations, and data analysis projects using the integrated features of MS Word, MS PowerPoint, and MS Excel.

1. **MS-Word & MS PowerPoint: MS Word**: Interface and navigation, creating and saving documents, formatting text and paragraphs, page layout and sections, headers, footers, and page numbering, border, watermark, adding fonts, line spacing, page break, table splits, references, use of AI, spell checks, mail merge, track changes and comments, creating tables and charts.
   MS PowerPoint: Interface and navigation, creating and saving presentations, slide design and layout, adding text, images, and videos, using SmartArt and charts, designing custom animations and transitions, presenter view and notes, creating interactive presentations, exporting and sharing presentations, converting PPT into JPEG/PDF, slide master, free templates, corporate presentations.
2. **Basics of Excel (Part 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.
3. **Basics of Excel (Part 2):** Defining names in Excel, sorting data, using Excel tables, filtering data in Excel, understanding 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.

4. **Customer Relationship Management (CRM) and Communication Tools: Salesforce** : Introduction to Salesforce CRM, managing customer relationships, sales tracking, automation of sales processes, customer service, creating dashboards, generating reports, using Salesforce Trailhead for hands-on practice. **HubSpot**: Overview of HubSpot CRM, inbound marketing strategies, managing contacts and deals, email marketing, sales automation, analytics and reporting, utilizing HubSpot Academy for practical knowledge. **Slack:** Understanding Slack interface, creating channels, managing teams, integrating apps and services, communication best practices, using Slack for project collaboration, exploring Slack resources. **Microsoft Teams**: Navigating Microsoft Teams, creating teams and channels, managing conversations and meetings, file sharing and collaboration, integrating Office 365 applications, using Microsoft Teams for remote work.
5. **Artificial Intelligence, Project Management and Marketing Tools**
   AI Tools: Introduction to AI and Chat GPT, Applications in Business, Saving work time through AI Tools, setting up and using Chat GPT, Paid Chat GPT Features, How to input the information for better results, integrating Chat GPT with business processes, introduction to machine learning tools, natural language processing applications, AI-driven business insights, ethical considerations
   Asana: Project and task management fundamentals, creating and managing projects, assigning tasks, setting deadlines, tracking progress, using Asana boards and timelines, collaboration features, Asana Academy resources.
   Trello: Visual project management with Trello, creating boards, lists, and cards, managing workflows, collaboration and team management, integrating power-ups and automation, using Trello for personal and professional projects.
   Hootsuite: Social media management basics, connecting social media accounts, scheduling and publishing posts, monitoring social media engagement, analyzing performance metrics, using Hootsuite for social media campaigns, Hootsuite Academy resources.

Suggested Book References

1. "Microsoft Office 365 For Dummies" by Wallace Wang
2. "MOS Study Guide for Microsoft Word Exam MO-100" by Joan Lambert
3. "MOS Study Guide for Microsoft PowerPoint Exam MO-300" by Joan Lambert
4. "Excel 2019 Bible" by Michael Alexander, Richard Kusleika, and John Walkenbach
5. "Microsoft Excel 2019 Step by Step" by Curtis Frye

Online Free Courses

1. **Microsoft Office Training Center:** Free training resources for Microsoft Word, PowerPoint, and Excel. https://support.microsoft.com/en-us/training
2. **GCF Global - Microsoft Office Tutorials:** Free tutorials for Word, PowerPoint, and Excel. https://edu.gcfglobal.org/en/subjects/office/
3. Coursera - AI For Everyone by Andrew Ng: Free trial and financial aid options available. https://www.coursera.org/learn/ai-for-everyone
4. DeepLearning.AI - Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning: Free trial and financial aid options available. https://www.coursera.org/learn/introduction-tensorflow

Semester I	**111**	**GE 03 - Environmental, Social, and Governance (ESG)**
2 Credits	**LTP: 2:0:0**	**Generic Elective**

Course Outcomes: Upon successful completion of the course, learners will be able to:

CO#	**Cognitive Abilities**	**Course Outcomes**
CO 111.1	Remembering	Identify key concepts and terminology related to Environmental, Social, and Governance (ESG) principles.
CO 111.2	Understanding	Explain the importance and impact of ESG factors on business and society.
CO 111.3	Applying	Apply ESG criteria in assessing business practices and strategies.
CO 111.4	Analyzing	Analyze the role of ESG in risk management and value creation.
CO 111.5	Evaluating	Evaluate the effectiveness of ESG practices in different industries.
CO 111.6	Creating	Develop strategies to improve ESG performance in organizations.

1. **Introduction to ESG:** Definition and scope of ESG, Historical development of ESG principles, Importance of ESG in modern business, Key stakeholders and their roles in ESG, Overview of global ESG standards and frameworks (e.g., UN SDGs, GRI, SASB), Case studies on the impact of ESG on business performance. **(6)**
2. **Environmental Sustainability:** Environmental issues and challenges, Corporate environmental responsibility, Strategies for reducing environmental impact, Environmental risk management, Sustainability reporting and metrics, Case studies on successful environmental sustainability initiatives. **(6)**
3. **Social Responsibility:** Definition and scope of social responsibility, Corporate social responsibility (CSR) practices, Human rights and labor standards, Diversity, equity, and inclusion (DEI) in the workplace, Community engagement and philanthropy, Case studies on effective social responsibility programs **(6)**
4. **Governance and Ethical Practices:** Principles of good corporate governance, Board structure and responsibilities, Executive compensation and incentives, Transparency and accountability, Ethical decision-making in business, Case studies on governance failures and successes **(6)**
5. **ESG Integration and Reporting:** Integrating ESG into business strategy, ESG risk assessment and management, ESG performance measurement and reporting, Role of technology in ESG data management, Investor perspectives on ESG, Case studies on comprehensive ESG integration **(6)**

Suggested Book References:

1. "Sustainable Investing: Revolutions in Theory and Practice" by Cary Krosinsky and Nick Robins
2. "Principles for Responsible Investment: An ESG Framework for Decision Making" by Gero Jung
3. "Corporate Governance and Ethics: An Aristotelian Perspective" by Alejo G. Sison
4. "The Sustainable MBA: A Business Guide to Sustainability" by Giselle Weybrecht
5. "Environmental, Social, and Governance (ESG) Investing: A Balanced Analysis of the Theory and Practice of a Sustainable Portfolio" by John Hill

Online Free Courses and Resources:

1. Coursera - "Introduction to ESG: Environmental, Social and Governance"
   Link: https://www.coursera.org/learn/esg-investing
2. edX - "Sustainable Development: The Post-Capitalist Order"
   Link: https://www.edx.org/course/sustainable-development-the-post-capitalist-order
3. FutureLearn - "Sustainable Business: Big Issues, Big Changes"
   Link: https://www.futurelearn.com/courses/sustainable-business
4. UNPRI - Principles for Responsible Investment Academy
   Link: https://www.unpri.org/pri-academy
5. GRI - Global Reporting Initiative Training and Resources
   Link: https://www.globalreporting.org/standards/training-and-resources/

Semester I	112	GE 04 – Demand Analysis And Forecasting
2 Credits	LTP: 2:0:0	Generic Elective

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 112.1	REMEMBERING	DESCRIBE the key terms associated with demand analysis, demand estimation and demand forecasting.
CO 112.2	UNDERSTANDING	SUMMARIZE the use of demand forecasting in various functions of management.
CO 112.3	APPLYING	IDENTIFY the pros and cons of various forecasting methods
CO 112.4	ANALYSING	DECONSTRUCT a forecast into its various components
CO 112.5	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 I	113	GE 05- Geopolitics & World Economic Systems
2 Credits	**LTP: 2:0:0**	**Generic Elective**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 113.1	REMEMBERING	ENUMERATE the various elements of global economic system.
CO 113.2	UNDERSTANDING	EXPLAIN the role of key trade organizations in the global economic system.
CO 113.3	APPLYING	INDENTIFY the crucial elements of international trade laws.
CO 113.4	ANALYSING	ANALYSE the forces that work for and against globalization.
CO 113.5	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 I	**114**	**GE 06 – Contemporary Frameworks in Management**
2 Credits	**LTP: 1:1:1**	**Generic Elective**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 114.1	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.
CO 114.2	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.
CO 114.3	APPLYING	APPLY the 21 laws that make leadership work succesfully to improve your leadership ability and ILLUSTRATE its positive impact on the whole organization.
CO 114.4	ANALYSING	EXAMINE the fundamental causes of organizational politics and team failure.
CO 114.5	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 I	115	GE 07 – Essentials Of Psychology for Managers
2 Credits	**LTP: 1:1:1**	**Generic Elective**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 115.1	REMEMBERING	DEFINE the basic concepts of psychology.
CO 115.2	UNDERSTANDING	EXPLAIN the sensing and perceiving processes.
CO 115.3	APPLYING	APPLY principles of learning and conditioning to human behavior.
CO 115.4	ANALYSING	ILLUSTRATE the linkages between learning, memory and information processing.
CO 115.5	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 II							
	Sem Code	Course Code	Course	Credits	FA	SA	Marks
Mandatory	201	GC – 09	Marketing Management	3	40	60	100
Mandatory	202	GC – 10	Financial Management	3	40	60	100
Mandatory	203	GC – 11	Human Resources Management	3	40	60	100
Mandatory	204	GC – 12	Operations & Supply Chain Management	3	40	60	100
Mandatory	205	GC - 13	Legal Aspects of Business	2	0	60	60
	CORE TOTAL		**5**	**14**	**160**	**300**	**460**
Mandatory	206	RM - 01	Business Research Methods	2	-	60	60
Mandatory	207	RM - 02	Desk Research	2	40	0	40
Mandatory	208	RM - 03	Field Project	4	40	120	160
	RESEARCH TOTAL		**3**	**8**	**80**	**180**	**260**
Semester II Generic Electives - Any 2 Courses to be Opted from the respective elective list							
Elective	209	GE 08	Business Communication-II	2	40	0	40
Elective	210	GE 09	Technology Tools in Business Management -II	2	40	0	40
Elective	211	GE 10	Sustainable Development Goals	2	40	0	40
Elective	212	GE 11	Selling & Negotiation Skills Lab	2	40	0	40
Elective	213	GE 12	Indian Economy	2	40	0	40
Elective	214	GE 13	International Business Environment	2	40	0	40
Elective	215	GE 14	Business Ethics	2	40	0	40
	ELECTIVE TOTAL		**2**	**4**	**80**	**0**	**80**
	SEMESTER TOTAL		**10**	**26**	**320**	**480**	**800**

Semester II		
Semester II	**201**	**GC 09– 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
CO 201.1	REMEMBERING	DESCRIBE the key terms associated with the 4 Ps of marketing and Marketing Planning & Control for a real world marketing offering(commodities, goods, services, e-products/ e-services.)
CO 201.2	UNDERSTANDING	DEMONSTRATE the relevance of marketing mix concepts and Planning & Control frameworks for a real-world marketing offering (commodities, goods, services, e-products/ e-services.)
CO 201.3	APPLYING	APPLY marketing Mix and Planning & Control decisions for a real world marketing offering (commodities, goods, services, e-products/ e-Services.)
CO 201.4	ANALYSING	EXAMINE marketing issues pertaining to Marketing Mix and Marketing Plan in the context of real-world marketing offering (commodities, goods, services, e-products/ e-services
CO 201.5	EVALUATING	EXPLAIN the interrelationships between various elements of Marketing mix and Planning & Control in the context of real-world marketing offering (commodities, goods, services, e-products/ e-services)
CO 201.6	CREATING	DESIGN a Marketing Mix and 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. Product Levels: 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. Sustainable practices in Product Design, Go-to-market strategy, Branding: Concept, Definition and Commodity vs. Brand, Product Vs Brand, and And Concept of Brand equity. Packaging & Labeling: Meaning & role, Types of Packaging, Sustainable practices in packaging and Labeling, (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). Token based pricing. Price Change: Initiating & responding to price Changes. Use of Big Data and Generative AI in pricing decisions (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 Channels in international Market, Online Interaction versus Offline Interaction -Introduction to Omni channel & hybrid channel options, Phygital Channels. Show rooming and Web rooming, Market Logistics Decisions – Order Processing, Warehousing, Customer Fulfilment Center, Dark stores, Inventory, and Logistics. Last-mile logistics, Role of IOT and Block chains in Market Logistics decisions (7 + 2)
4. **Promotion:** Meaning, The role of marketing communications in marketing effort. Communication Mix Elements, Introduction to Advertising, 5Ms of Advertising, Sales Promotion, Personal Selling, Public Relations, Word of Mouth (WOM), Direct Marketing, Traditional to Digital Promotion =Contextual Marketing, Permission Marketing, Data driven marketing ,Attention, Interest, Desire, Action (AIDA) to 5A (Aware, Appeal, Ask, Act, and Advocate), 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. Role of Generative AI in Promotion decisions (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, and Control.Marketing Evaluation & Control - Concept, Process & types of control - Annual Plan Control, Profitability Control, Efficiency Control, Strategic Control, Marketing Audit, Impact of Technology on Marketing Planning and Control = Connected Marketing Mix -four C's (co-creation, currency, communal activation, and Conversation). Application of Agile marketing Practices in Marketing Planning and control, Use of Immersive Marketing for Marketing Planning and control decisions. (7 + 2)

Note: Real world examples / cases in domestic and international context for commodities, goods, services, e-products/ e-services in terms of Traditional as well as contemporary Marketing Practices are expected to be analyzed in the class as well as included in the Examination.

Suggested Text Books:

1. Marketing Management: A South Asian Perspective Kotler, Keller, Koshy& Jha, 14 th edition, Pearson Education,2018.
2. Marketing Management, Rajan Saxena, TMGH,6th Edition ,2019
3. Marketing, Lamb Hair Sharma, Mc Daniel, Cengage Learning,1st Edition ,2016
4. Marketing Management - RamaswamyV. S. &Namakumar S, 4/e, Macmillan Publishers, 2014.
5. Marketing Management -Arun Kumar& Meenakshi N, 2/e, Vikas publications, 2013
6. Marketing Management- Text and Cases, Tapan K Panda, Excel Books, 2008
7. Marketing 4.0: Moving from Traditional to Digital, Philip Kotler, Hermawan Kartajaya, Iwan Seiwan, 2017
8. Marketing 5.0: Technology for Humanity by Philip Kotler, Hermawan Kartajaya, Wiley .2021
9. Marketing 6.0: The Future Is Immersive : Philip Kotler, Hermawan Kartajaya,2023

Suggested References:

1. Marketing Grewal, Levy, Tata McGraw-Hill,7th Edition,2021
2. Marketing, Asian Edition, Paul Bainer, Chris Fill, Kelly Page, Oxford University Press.2013
3. Principles of Marketing, Philip Kotler, Gary Armstrong, Prafulla Agnihotri, Ehasan Haque, Pearson,13th Edition
4. Brand Equity Supplement of the Economic Times
5. Brand Wagon Supplement of the Financial Express
6 Strategist Supplement of Business Standard
7 Marketing White book, latest edition
8. https://www.togai.com/blog/generative-ai-pricing-strategies/,accessed on 20th June 2024,at 12 .02 am.
9. Generative AI: The Insights You Need from Harvard Business Review (HBR Insights Series), Harvard Business Review, Randye Kaye, et al., on 20th June 2024,at 12 .02 am.
10. https://revenueml.com/insights/articles/potential-generative-artificial-intelligence-pricing, accessed on 20th June 2024, at 12 .02 am.
11. https://www.forbes.com/sites/derekrucker/2021/06/16/the-evolution-of-marketing-a-candid-conversation-with-the-father-of-modern-marketing/, accessed on 20th June 2024,at 12 .02 am

Semester II	202	GC 10– 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
CO 202.1	REMEMBERING	DESCRIBE the basic concepts related to Financial Management, Various techniques of Financial Statement Analysis, Working Capital, Capital Structure, Leverages and Capital Budgeting.
CO 202.2	UNDERSTANDING	EXPLAIN in detail all theoretical concepts throughout the syllabus
CO 202.3	APPLYING	PERFORM all the required calculations through relevant numerical problems
CO 202.4	ANALYSING	ANALYZE the situation and • comment on financial position of the firm • estimate working capital required • decide ideal capital structure • evaluate various project proposals
CO 202.5	EVALUATING	EVALUATE impact of business decisions on Financial Statements, Working Capital, Capital Structure and Capital Budgeting of the firm
CO 202.6	CREATING	CREATE Common Size Comparative Statements, Comparative Financial Statements using Ratio Analysis (Year-wise, Industry – wise), Comparative Proposals using Capital Budgeting Techniques

1. **Introduction:** Introduction to 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 **(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. **(7 + 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 **(7 + 2)**

Note: Numerical Problems will be asked on following topics only—
1. Common Size Statements
2. Comparative Statements
3. Ratio Analysis (Calculation of ratios plus its interpretation)
4. Estimation of working capital requirement (Total Cost Method & Cash Cost Method)
5. Measurement of Specific Cost (Cost of Equity, Preference, Retained Earnings and Debt) and WACC
6. Capital Structure
7. Leverages
8. Capital Budgeting (ARR, Payback Period, Discounted Payback Period, NPV, PI & IRR)

Suggested 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)

**** Note: The Financial Management syllabus focuses on the techniques used for financial decision making at the organisational level. The origin of the same is observed to be seen in the 20th century. Hence, the IKS element seems to be difficult to be included in the Financial Management syllabus.**

Semester II	203	GC 11 – 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
CO 203.1	REMEMBERING	DEFINE the role of Human Resource Functions in an Organization
CO 203.2	UNDERSTANDING	UNDERSTAND the emerging trends and practices in HRM.
CO 203.3	APPLYING	UTILIZE the different methods of HRM in an organization
CO 203.4	ANALYSING	EXAMINE the use of different HRM Practices in an organization.
CO 203.5	EVALUATING	ASSESS the outcome of different HRM functions in an organization.
CO 203.6	CREATING	DESIGN the HR manual and compensation policy of the organization

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. (6+2)
2. **Human Resource Planning:** Human Resource Planning: Definition, Objectives, Need and Importance, HRP Process, Barriers to HRP. Job Analysis Process – Contents of Job Description & Job Specification, Job design, Factors affecting Job design, Job enrichment Vs job enlargement. (7+2)
3. **Recruitment and Retention:** Recruitment Introduction, Sources of Recruitment, Difference between recruitment and selection. Applying IKS principles to recruitment, Process- Recruitment and Selection, concept- Induction and Orientation. Career Planning-Process of career planning, Succession Planning- Process of succession planning, Transfer and Promotion. **Retention of Employees**: Importance of retention, strategies of retention. (7+2)
4. **Managing Employee Performance and Training:** Performance Appraisal & Performance Management – Definition, Objectives, Importance, Applying IKS principles to Performance and rewards, Appraisal Process and Appraisal Methods. **Training and Development** - Definition – Scope, Role of Training in an Organizations, Objectives, Applying IKS principles to Training, 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)
5. **Compensation Management:** Concept, Objectives, Importance of Compensation Management, Process, Current Trends in Compensation. Components of salary. Incentives and Benefits – Financial & Nonfinancial Incentive, Fringe Benefits. Employees Separation - Retirement, Termination, VRS, Suspension. Concept- Grievance and grievance redressal procedure. (7+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	GC 12 – 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
CO 204.1	REMEMBERING	DEFINE basic terms and concepts related to Production, Operations, Services, Supply Chain and Quality Management.
CO 204.2	UNDERSTANDING	EXPLAIN the process characteristics and their linkages with process-product matrix in a real-world context.
CO 204.3	APPLYING	DESCRIBE the various dimensions of production planning and control and their inter-linkages with forecasting.
CO 204.4	ANALYSING	CALCULATE inventory levels and order quantities and MAKE USE OF various inventory classification methods.
CO 204.5	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.
CO 204.6	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.
6. Decoding Success – Indian Business Management Cases -Kelkar Girish, Ed. Kulkarni Abhay, Orange Books

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.

Semester II	**205**	**GC 13- Legal Aspects Of Business**
2 Credits	**LTP: 2:0:0**	**Compulsory Generic Core Course**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 205.1	REMEMBERING	DESCRIBE the key terms involved in each Act.
CO 205.2	UNDERSTANDING	SUMMARIZE the key legal provisions of each Act.
CO 205.3	APPLYING	ILLUSTRATE the use of the Acts in common business situations.
CO 205.4	ANALYSING	OUTLINE the various facets of basic case laws of each Act from a legal and managerial perspective.
CO 205.5	EVALUATING	DEVELOP critical thinking by making judgments related to use of various provisions of the Acts in business situations

1. **The Indian Contract Act 1872:** Meaning and Essentials of contract; Kinds of contract based on validity, formation of contract- law relating to offer and acceptance, consideration, competency to contract, free consent, void agreements, Wagering Agreement and Its Essentials, Exceptions to wager, performance of contracts, Contingent Contract, Quasi Contract, Discharge of contract, Breach of contract-Meaning & remedies; Special contracts-contract of indemnity and guarantee, Contract of Agency - Creation of Agency – Agent and Principal (Relationship/rights). (5+1)
2. **Sale of Goods Act, 1930:** Contract of sale of goods, Sale and agreement to sell, Caveat emptor, Conditions & warranties, Transfer of property or ownership, Performance of the Contract of Sale-delivery of goods by seller and acceptance of delivery of goods and payment for the same by buyer, Unpaid Seller-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- Private, public, One Person Company, Incorporation of Company – Memorandum of Association (MOA), Articles of Association (AOA), Prospectus, share capital and types of shares & Debentures, buy back of shares, Acceptance of deposits, Appointment of director including woman Director. (5+1)

5. **The Consumer Protection Act, 2019:** Definition of Consumer w.r.t goods & services, Dispute Redressal Forums – District, State & National Forum, Composition, Jurisdiction, Powers, Appellate Authority, Unfair & Restrictive Trade Practices, (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 II	**206**	**RM 01- Business Research Methods**
2 Credits	**LTP: 1:1:1**	**Compulsory Generic Core Course**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 206.1	REMEMBERING	DEFINE various concepts & terms associated with scientific business research.
CO 206.2	UNDERSTANDING	EXPLAIN the terms and concepts used in all aspects of scientific business research.
CO 206.3	APPLYING	MAKE USE OF scientific principles of research to SOLVE contemporary business research problems.
CO 206.4	ANALYSING	EXAMINE the various facets of a research problem and ILLUSTRATE the relevant aspects of the research process from a data driven decision perspective.
CO 206.5	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.
CO 206.6	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. **(3+6)**
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. **(3+6)**

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. **(3+6)**
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) **(3+6)**
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. **(3+6)**

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 II	**207**	**RM 02- Desk Research (DR)**
2 Credits	**LTP: 0:1:3**	**Subject Core Course – Research (Specialization Specific)**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO207.1	REMEMBERING	DESCRIBE the key historical, organizational, market related, financial, governance, leadership and social responsibility dimensions of a real-world business organization and the relevant industry
CO207.2	UNDERSTANDING	SUMMARIZE the regional, national and global footprint of a real-world business organization and the relevant industry

CO207.3	APPLYING	DEMONSTRATE an understanding of the regulatory forces acting on a real-world business organization and the relevant industry
CO207.4	ANALYSING	COMPARE and CONTRAST, using tables and charts, the market and financial performance of a real-world business organization and the players in an industry
CO207.5	EVALUATING	COMPOSE a succinct summary of future plans of a real-world business organization and the relevant industry the company website, shareholders reports and other information available in the public domain.
CO207.6	CREATING	IMAGINE the key challenges and opportunities for a real-world business organization and the relevant 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 working in groups of 3 to 5 each shall select of any TWO industries of their choice, under the guidance of a faculty.
2. The indepth analysis of the industry shall be carried out jointly by the students
3. Everystudent shall study one company within this industry independently.
4. Industries selected should be distinct from each other.
5. 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 / CMIE / ACE Equity Money Control / ET / BS database, etc.

Semester II	**208**	**RM 03 - Field Project (FP)**
4 Credits	**LTP: 0:0:4**	**Subject Core Course – Research (Specialization Specific)**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 208.1	REMEMBERING	Recall and list key management concepts and frameworks relevant to their specialization specific field project.
CO 208.2	UNDERSTANDING	Demonstrate an understanding of the specific management theories and frameworks to real-world business issues.
CO 208.3	APPLYING	Apply theoretical knowledge to practical situations in their chosen field of specialization and demonstrate data driven decision making approach.
CO 208.4	ANALYSING	Analyze quantitative and qualitative data collected from the field to identify patterns, trends, and insights relevant to their specialization.
CO 208.5	EVALUATING	Evaluate the effectiveness of different management strategies and approaches by comparing their field project findings with existing literature and industry practices from the respective specialization / domain.
CO 208.6	CREATING	Create a comprehensive field project report and presentation that integrates their findings, analysis, and recommendations, demonstrating a professional and result-oriented approach.

A] Preamble:

1. To integrate theory and practice by providing students with the opportunity to work on real-world issues.
2. To provide experiential learning opportunities that go beyond traditional textbooks and classroom learning.
3. To provide a platform to explore the functional aspects of each specialization.
4. To deepen students' understanding of management concepts and frameworks.
5. To develop application-oriented approach by bridging the gap between theory and practice.
6. To foster the development of critical skills, a professional mindset, and a result-oriented approach.
7. To highlight the insights from the business environment of the geographical region.

B] Guidelines for the Field Projects

B - 1] Nature of the Field Project:

1. **<u>Field project must be related to the intended specialization of the student.</u>**
2. Field projects must be done individually. Group projects are not permitted.
3. The project should involve fieldwork; **<u>online projects are not permitted</u>**.
4. Primary data collection is mandatory.
5. Field projects can be quantitative / qualitative in nature or even use mixed approaches.
6. Field projects can involve surveys, interviews, case studies, visits or observation studies.
7. For surveys, the sample size should be between more than or equal to100 participants.
8. For in-depth interviews (lasting at least 45-60 minutes), the sample size should be a minimum of 25 participants.
9. **Total Hours of Effort Expected**: 160 Hours, (This can be completed during the Semster, Saturdays, Sundays, Public holidyas, Winter vacation in between Sem-I and Sem-II)

B - 2] Permissible Partner Organizations:

Students have the flexibility to conduct their field projects with any of the following organizations:

a) Companies listed on either NSE or BSE in India /abroad
b) Unlisted subsidiaries of Listed Companies.
c) Government / Semi-Government Undertaking / PSU
d) Government Offices
e) Consultancy Firms
f) Start Ups with an existence of 3 years or more and manpower more than 25.
g) Family managed businesses with an existence of 5 years or more and manpower more than 25.

NOTE: **Students can also carry out the Field Work without being associated to a specific organization**. Such projects may involve **quantitative / qualitative fieldwork** related to

a) Contemporary issues of businesses
b) Specialization specific concepts
c) Local or regional concerns
d) Matters of national importance.

B - 3] Linkage with specialization: The field project topic must be aligned with the specialization chosen and specialization electives offered in Semester II.
It can address local, national, or global issues relevant to the specialization, as guided by the faculty guide / mentor.

B – 4] Selecting a Relevant Topic: Consider current trends, issues, or challenges within the domain / specialization across various business (industry) sectors when conducting their project.

B – 5] Identifying the Scope: Define the project's scope to ensure it is manageable within the given timeframe and resources. Set realistic expectations regarding the project's depth and breadth.

B – 6] Project Objectives - Clearly outline the objectives of your field project.

B – 7] Project Planning and Proposal: Students shall define the scope and objectives of the specialization-specific field project, develop a project proposal, and gain approval from the institute.

B –8] Reporting and Presentation: Prepare a professional report & presentation that outlines your project, methodology, findings, and recommendations as per the outline given below. Your report should be clear, well-structured, visually appealing & the presentation must be delivered professionally.

Presentation could be through any of the enlisted formats: (this is an indicative list and innovative formats if any beyond this list may be adopted) -

1. Traditional Slide Deck Presentation
2. Infographics
3. Video presentation
4. Paper presentation
5. Poster presentation
6. Webinar or online presentation
7. TED-style presentation
8. Storytelling Presentation etc.

B – 10] Indicative break up of hours (160 hours)

1. 120 hours - On fieldwork (The field project shall be spread throughout the second semester, can be start immediatly after Sem-I exam Winter vacation)
2. 40 hours – Pre and post-field work including proposal making, analysis, report writing, etc.

C] Field Project Proposal Outline

The Field Project proposal, ranging from three to five pages, outlines the development plan for the project. It includes one or two paragraphs for each of the following components:

1. **Field Project Introduction**: Provide an overview of the project, including its context and scope.
2. **Statement of the Problem**: Clearly define the problem the project aims to address.
3. **Purpose of the Project**: Explain the main objectives and goals of the project.
4. **Significance of the Project**: Discuss the importance and potential impact of the project.
5. **Plan for Developing / Executing the Project**: Describe the approach and steps to be taken in developing / executing the project.
6. **Review of the Literature**: Include an initial literature review of one or two pages.

D] Field Project Report Outline

The field project report includes the components mentioned below.

1. Title Page
2. Declaration by student
3. Acknowledgement by student
4. Certificate by the Guide on Institutional Letter Head
5. Certificate by the Partner Organization on Letter Head (if applicable)
6. Table of Contents
7. List of Tables (if needed)
8. List of Figures (if needed)
9. Abstract

D – 1] Chapter I - Introduction:

1. Statement of the Problem
2. Purpose /Objectives of the Project
3. Theoretical Framework
4. Significance of the Project
5. Definition of Terms (optional)

D-2] Chapter II - Review of the Literature:

1. Review the existing body of knowledge available on the problem or topic.

D -3] Chapter III Method:

1. Describes how the study was completed / conducted, including a specific description of subjects, procedures, equipment, materials, and other information pertinent to the study,

D-4] Chapter IV – Data Collection and Analysis:

1. Collecting relevant data from primary and secondarysources.
2. Analyzing data using appropriate analytical tools and techniques.

D – 5] Chapter V – Results / Findings & Suggestions:

1. Identifying key issues, opportunities, trends etc. based on data analysis.
2. Develop / propose feasible solutions or recommendations.
3. Reflect on the experience, lessons learned, and scope for further work / improvement.

D - 6] Annexures

1. Questionnaires
2. Observation Sheets
3. Field Maps
4. Exhibits
5. Geo Tagged Photos with Sample respondents
6. Any other relevant documents

E] Evaluation Pattern:

Total Marks: 160
Formative Assessment: 40 Marks
Summative Assessment: 120 Marks

E – 1] Formative Assessment Weightage (40 marks):

1. Project Proposal - 5 marks
2. Interim Progress review I / Report I - 5 marks
3. Final Project Report - 10 marks
4. Final Presentation (30 marks with break up as indicated below)
   a) Project Objectives - 2 marks
   b) Quality of Analysis and Research - 2 marks
   c) Problem Solving and Decision Making - 2 marks

d) Innovation and Impact - 4 marks
e) Documentation and Reporting - 5 marks
f) Reflection - 5 marks

E – 2] Summative Assessment Weightage (100 marks):

1. There shall be a panel of 2 examiners for the Final Viva-Voce
2. University shall nominate External Examiners
3. Director shall nominate Internal Examiner
4. Presentation by each student along with a spiral bound report is mandatory
5. Students will deliver a 20 minutes presentation about their field project.
6. The panel will evaluate the presentation for 60 marks and the viva-voce shall have a weightage of 60 marks.
7. The presentation & the External viva voce shall evaluate the Field Project on:
   a) Project Objectives
   b) Quality of Analysis and Research
   c) Problem Solving and Decision Making
   d) Innovation and Impact
   e) Documentation and Reporting
   f) Reflection

Semester II	209	GE 08 - Business Communication
2 Credits	LTP: 0:2:2	Generic Elective

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 209.1	REMEMBERING	DESCRIBE stages in a typical communication cycle and the barriers to effective communication.
CO 209.2	UNDERSTANDING	SUMMARIZE long essays and reports into précis and executive summaries.
CO 209.3	APPLYING	USE Dictionary and Thesaurus to draft and edit a variety of business written communication.
CO 209.4	ANALYSING	EXAMINE sample internal communications in a business environment for potential refinements.
CO 209.5	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	**210**	**GE 09 – Technology Tools in Business Management-II**
2 Credits	**LTP: 0:0:4**	**Generic Elective**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 210.1	REMEMBERING	Recall advanced functions and features of Excel, Power BI, Tableau, Chat GPT, and other emerging tools.
CO 210.2	UNDERSTANDING	Explain the advanced functionalities and applications of these tools in business contexts.
CO 210.3	APPLYING	Utilize advanced features to perform complex data analysis, create interactive dashboards, and develop AI-driven solutions.
CO 210.4	ANALYSING	Examine the integration and application of advanced tools in real-world business scenarios
CO 210.5	EVALUATING	Assess the effectiveness and efficiency of using advanced tools for business intelligence and decision-making.
CO 210.6	CREATING	Develop sophisticated business intelligence projects, interactive dashboards, and AI-driven solutions using advanced tools.

1. **Advanced Excel (Part 1):** 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, math and trig functions, text functions in Excel, lookup functions (Vlookups, HLookups, Match), 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 finalizing workbooks. (12)
2. **Advanced Excel (Part 2):** Custom number formats in Excel, using custom lists, working with templates, tracking changes in Excel, merging and comparing Excel workbooks, using pivot tables and 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. (12)

3. **Power BI and Tableau: Power BI:** Interface and navigation, connecting to data sources, basic data modeling, creating interactive dashboards, using DAX for calculations, sharing and publishing reports, advanced data transformations, custom visuals, integration with other Microsoft tools. **Tableau:** Interface and navigation, connecting to data sources, basic data visualization, creating interactive dashboards, using calculations and parameters, sharing and publishing dashboards, advanced data manipulation, custom geocoding, integration with other tools. (12)
4. **Google Analytics & Financial Tools:** Google Analytics: Setting up Google Analytics accounts, tracking website traffic, understanding key metrics and reports, audience, acquisition, and behavior analysis, conversion tracking, using Google Analytics Academy for hands-on learning, QuickBooks: Introduction to QuickBooks, managing financial transactions, creating and sending invoices, tracking expenses and income, generating financial reports, understanding QuickBooks Online vs Desktop, QuickBooks support resources. (12)
5. **SAP and Cloud Computing Tools:** SAP: Overview of SAP ERP, modules and functionalities, managing business operations, integrating SAP with other business systems, hands-on practice with SAP training modules, using SAP Learning Hub for skill enhancement., Amazon Web Services (AWS): Cloud computing fundamentals, key AWS services (EC2, S3, RDS), setting up AWS accounts, managing cloud resources, understanding AWS pricing models, AWS security best practices, AWS Training and Certification resources., Google Cloud Platform (GCP): Introduction to GCP, key services and tools (Compute Engine, Cloud Storage, Big Query), managing GCP resources, setting up projects and billing, GCP security features, learning resources for GCP, Microsoft Azure: Overview of Microsoft Azure, key services (Virtual Machines, Azure Storage, Azure SQL Database), creating and managing Azure resources, understanding Azure pricing, Azure security best practices, Azure Training and Certification resources. (12)

Suggested Books

1. "Excel 2019 Power Programming with VBA" by Michael Alexander and Dick Kusleika
2. "Advanced Excel Essentials" by Jordan Goldmeier
3. "Microsoft Excel Data Analysis and Business Modeling" by Wayne Winston
4. "Excel 2019 for Business Statistics: A Guide to Solving Practical Business Problems" by Thomas J. Quirk
5. "Introducing Microsoft Power BI" by Alberto Ferrari and Marco Russo
6. "Microsoft Power BI Cookbook" by Greg Deckler and Brett Powell
7. "Mastering Microsoft Power BI: Expert techniques for effective data analytics and business intelligence" by Brett Powell
8. "Learning Tableau 2020: Create effective data visualizations, build interactive visual analytics, and transform your organization" by Joshua N. Milligan
9. "Tableau Your Data!": Fast and Easy Visual Analysis with Tableau Online Free Courses

Online Resources

MS Word, MS PowerPoint, and Basic Excel:

1. Microsoft Office Training Center: Free training resources for Microsoft Word, PowerPoint, and Excel. https://support.microsoft.com/en-us/training
2. GCF Global - Microsoft Office Tutorials: Free tutorials for Word, PowerPoint, and Excel. https://edu.gcfglobal.org/en/subjects/office/

Advanced Excel:

1. Coursera - Excel Skills for Business Specialization: Offers a free trial and financial aid options. https://www.coursera.org/specializations/excel
2. edX - Analyzing and Visualizing Data with Excel: Free access with optional paid certificate. https://www.edx.org/course/analyzing-and-visualizing-data-with-excel

Power BI:

1. Microsoft Learn - Get Started with Power BI: Free, self-paced learning path. https://docs.microsoft.com/en-us/learn/paths/get-started-power-bi/
2. Coursera - Getting Started with Power BI: Free trial available. https://www.coursera.org/learn/getting-started-with-power-bi

Tableau:

1. Tableau Public - Free Training Videos: Free training videos provided by Tableau. https://www.tableau.com/learn/training/20201
2. Coursera - Data Visualization with Tableau: Free trial and financial aid options available. https://www.coursera.org/learn/visualization-with-tableau

Semester -II	211	GE 10 - Sustainable Development Goals (SDG)
2 Credits	LTP: 2:0:0	Generic Elective

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 211.1	REMEMBERING	Recall the 17 Sustainable Development Goals (SDGs) set by the United Nations.
CO 211.2	UNDERSTANDING	Explain the significance and objectives of each SDG.
CO 211.3	APPLYING	Apply the concepts of sustainable development to real-world scenarios.
CO 211.4	ANALYSING	Analyse the interconnections and interdependencies among different SDGs.
CO 211.5	EVALUATING	Evaluate the progress and challenges in achieving the SDGs at local, national, and global levels.
CO 211.6	CREATING	Develop strategies and action plans to contribute to the achievement of the SDGs.

Unit 1: Introduction to Sustainable Development Goals: Overview of the 17 Sustainable Development Goals (SDGs) established by the United Nations in 2015, purpose and significance of the SDGs, global commitment to achieving the SDGs by 2030, historical background leading to the SDGs including the Millennium Development Goals (MDGs), fundamental principles of sustainable development, importance of integrating economic growth, social inclusion, and environmental protection. (6)

Unit 2: Detailed Study of Selected SDGs: Focus on specific goals such as No Poverty (SDG 1), Zero Hunger (SDG 2), Good Health and Well-being (SDG 3), and Quality Education (SDG 4), targets and indicators associated with each goal, initiatives and strategies implemented globally and locally, success stories and best practices, challenges and barriers faced, role of governments, NGOs, and other stakeholders. (6)

Unit 3: Interlinkages and Synergies among SDGs: Analysis of the interconnections between different SDGs, concept of policycoherence for sustainable development, benefits of integrated approaches, case studies and examples of successful synergies, benefits of coordinated efforts and collaborative actions among various sectors and stakeholders. (6)

Unit 4: Monitoring and Evaluation of SDGs: Frameworks and methodologies for monitoring and evaluating progress towards the SDGs, role of data, indicators, and statistical tools, challenges of data collection and reporting, importance of accountability and transparency, role of national and international institutions in monitoring and evaluation. (6)

Unit 5: Strategies and Action Plans for Achieving SDGs: Development of practical strategies and action plans, approaches and tools for planning, implementing, and scaling up sustainable development initiatives, focus on innovation, partnership, and community engagement, designing projects and action plans to address specific SDG-related challenges in communities or professional fields. (6)

Suggested Book References:

1. "Transforming Our World: The 2030 Agenda for Sustainable Development" by United Nations.
2. "The Age of Sustainable Development" by Jeffrey D. Sachs.
3. "Sustainable Development Goals: Harnessing Business to Achieve the SDGs through Finance, Technology and Law Reform" by Julia Walker, Alma Pekmezovic, and Gordon Walker.
4. "Sustainable Development Goals: Understanding the United Nations' 2030 Agenda for Sustainable Development" by Wendy Steele.

Online Free Courses and Resources:

1. Coursera - "The Sustainable Development Goals – A global, transdisciplinary vision for the future"

https://www.coursera.org/learn/sustainable-development
2. edX - "Transforming Our World: Achieving the Sustainable Development Goals" https://www.edx.org/course/transforming-our-world-achieving-the-sustainable-development-goals
3. United Nations - Sustainable Development Goals Knowledge Platform https://sustainabledevelopment.un.org/sdgs

Semester -II	212	GE 11 - Selling & Negotiations Skills Lab
2 Credits	LTP: 1:1:1	Generic Elective

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 212.1	REMEMBERING	DESCRIBE the various selling situations and selling types.
CO 212.2	UNDERSTANDING	OUTLINE the pre-sales work to be carried out bya professional salesperson.
CO 212.3	APPLYING	IDENTIFY the key individuals involved in a real-world sales process for a real-world product/ service / e-product / e-service.
CO 212.4	ANALYSING	FORMULATE a sales script for a real-world sales call for a product/ service / e-product / e-service.
CO 212.5	EVALUATING	DECONSTRUCT the pros and cons of sample real world sales calls for a product/ service / e-product / e-service.
CO 212.6	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 II	**213**	**GE 12 – Indian Economy**
2 Credits	**LTP: 2:0:0**	**Generic Elective**

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

CO#	**COGNITIVE ABILITIES**	**COURSE OUTCOMES**
CO 213.1	REMEMBERING	DESCRIBE the present state of Indian Economy and LIST major economic policy issues in the current context.
CO 213.2	UNDERSTANDING	EXPLAIN the economic development strategy since Independence and DISCUSS the priorities in the current context.
CO 213.3	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.
CO 213.4	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.
CO 213.5	EVALUATING	DETERMINE the key priority areas, across various dimensions, for the Indian Economy in the context of current economic environment.
CO 213.6	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 Theoryof 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 II	**214**	**GE 13 – International Business Environment**
2 Credits	**LTP: 2:0:0**	**Generic Elective**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 214 .1	Remembering	Recall and Describe the key concepts of international Business Environment
CO 214.2	Understanding	Understand the relevance of Multinational Corporations (MNCs) in global trade
CO 214.3	Applying	Demonstrate the significance of FDI and FPI in respect of developing economy
CO 214.4	Analysing	Analyze the issues related to Labor, Environmental and Global Value chain
CO 214.5	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 II	215	GE 14 – Business Ethics
2 Credits	LTP: 2:0:0	Generic Elective

On successful completion of the course the learner will be able to

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 215.1	REMEMBERING	Recall the fundamental concepts and principles of business ethics.
CO 215.2	UNDERSTANDING	Explain the importance of ethical behavior in business and its impact on stakeholders.
CO 215.3	APPLYING	Apply ethical theories and frameworks to real-world business situations.
CO 215.4	ANALYSING	Analyse ethical dilemmas and conflicts of interest in business practices.
CO 215.5	EVALUATING	Evaluate the role of corporate governance and corporate social responsibility in promoting ethical business practices.
CO 215.6	CREATING	Develop strategies to foster an ethical culture within an organization.

1. **Introduction to Business Ethics:** Definition and scope of business ethics, importance of ethics in business, historical development of business ethics, key ethical theories and philosophies (utilitarianism, deontology, virtue ethics), distinction between ethics, morals, and values, relevance of ethics in contemporary business environments.
2. **Ethical Decision Making in Business:** Frameworks for ethical decision making, stages of moral development (Kohlberg's theory), factors influencing ethical decision making (individual, organizational, societal), tools and techniques for ethical analysis, role of ethical leadership, ethical issues in various business functions (marketing, finance, HR, operations).
3. **Corporate Governance and Corporate Social Responsibility (CSR):** Concepts and principles of corporate governance, role of boards of directors and executives, importance of transparency and accountability, codes of conduct and ethical guidelines, definition and significance of CSR, approaches to CSR (philanthropy, sustainability, shared value), impact of CSR on business performance and society.
4. **Ethical Issues in Global Business:** Cross-cultural ethical issues and challenges, ethical implications of globalization, international business ethics standards (e.g., UN Global Compact, OECD Guidelines), ethical

practices in international trade and investment, role of multinational corporations in promoting ethical practices, case studies of global business ethics issues.

5. **Promoting Ethical Culture in Organizations:** Strategies for fostering an ethical culture, role of ethical training and development, importance of ethical codes and policies, whistleblowing and protection for whistleblowers, methods for monitoring and enforcing ethical standards, case studies of organizations with strong ethical cultures, benefits of maintaining high ethical standards.

Suggested Book References:

1. "Business Ethics: Concepts and Cases" by Manuel G. Velasquez.
2. "Business Ethics: A Textbook with Cases" by William H. Shaw.
3. "The Essentials of Business Ethics" by Denis Collins.
4. "Corporate Governance and Business Ethics" by Alexander Brink.

Online Free Courses and Resources:

1. Coursera - "Business Ethics for the Real World"
   https://www.coursera.org/learn/business-ethics
2. edX - "Corporate Social Responsibility (CSR): A Strategic Approach"
   https://www.edx.org/course/corporate-social-responsibility-csr-a-strategic-approach
3. MIT OpenCourseWare - "Business Ethics"
   https://ocw.mit.edu/courses/sloan-school-of-management/15-270-ethical-practice-professionalism-social-responsibility-in-business-spring-2010/index.htm

Semester III	301	301– Strategic Management
3 Credits	LTP: 2:1:1	Compulsory Generic Core Course

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 301.1	REMEMBERING	DESCRIBE the basic terms and concepts in Strategic Management.
CO 301.2	UNDERSTANDING	EXPLAIN the various facets of Strategic Management in a real-world context.
CO 301.3	UNDERSTANDING	DESCRIBE the trade-offs within and across strategy formulation, implementation, appraisal.
CO 301.4	APPLYING	INTEGRATE the aspects of various functional areas of management to develop a strategic perspective.
CO 301.5	ANALYSING	EXPLAIN the nature of the problems and challenges confronted by the top management team and the approaches required to function effectively as strategists.
CO 301.6	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: Startups - 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 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	SC 01-Advanced Financial Management
3 Credits	**LTP: 2:1:0**	**Subject Core Course – Fintech Management**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 302.1	REMEMBERING	Understand the need and aspects of personal financial planning
CO 302.2	UNDERSTANDING	Describe the investment options available to an individual
CO 302.3	APPLYING	Identify types of risk and means of managing it
CO 302.4	ANALYSING	Determine the ways of personal tax planning
CO 302.5	EVALUATING	Explain retirement and estate planning and design financial plan.
CO 302.6	CREATING	Create a financial plan for a variety of individuals.

1. Corporate Restructuring and Valuation (6+2)

- **Understanding Corporate Restructuring:** Forms of restructuring (mergers, spin-offs, divestitures, LBOs, etc.), key drivers, and regulatory landscape.
- **Financial Distress and Turnarounds:** Causes of distress, restructuring strategies, and case studies on successful turnarounds.
- **Valuation Fundamentals:** Importance of financial statement analysis, funds flow & cash flow statements, and their role in valuation.
- **Economic Value Added (EVA):** Definition, components, advantages, limitations, and practical applications.

2. Capital Structure and Firm Value (7+2)

- **Capital Structure Theories:** Net Income Approach, Net Operating Income Approach, Traditional Position, and Modigliani-Miller Theorem with taxes.
- **Optimizing Capital Structure:** Trade-off theory, signaling theory, impact on WACC, and leverage decisions.
- **Performance Metrics:** PBIT-EPS analysis, ROI-ROE analysis, and leverage ratios.
- **Strategic Capital Planning:** Key considerations in designing an effective capital structure.

3. Mergers, Acquisitions, and Corporate Transactions (6+1)

- **Types of M&A Transactions:** Horizontal, vertical, conglomerate, and strategic M&As.
- **Valuation in M&As:** Deal structuring, methods of payment (cash, stock, hybrid), synergies, and post-merger integration.
- **Regulatory and Legal Framework:** SEBI guidelines, Competition Act, FEMA regulations, and global best practices.
- **Defensive Strategies:** Anti-takeover measures, poison pills, and white knight strategies.
- **Leveraged Buyouts (LBOs) and Portfolio Restructuring:** Understanding private equity deals and their financial implications.

4. Working Capital and Dividend Policy (10+1)

- **Working Capital Management:** Importance, assessment of current asset levels, financing options from banks, and optimizing cash cycles.
- **Cash and Liquidity Management:** Cash flow forecasting, cash management models (Baumol & Miller-Orr), and surplus fund deployment.
- **Credit and Receivables Management:** Credit policies, factoring, and collection strategies.
- **Dividend Policy & Market Perception:** Relevance of dividend payments, key influencing factors, legal aspects, and impact on firm value.
- **Dividend Models:** Walter's Model, Gordon's Growth Model, and Modigliani-Miller Dividend Irrelevance Theory.

5. **Accounting Standards and Financial Analysis** (8+2)

- **Key Financial Reporting Standards:** IFRS, IND AS, and their impact on financial decision-making.
- **Financial Analysis Techniques:** Ratio analysis, trend analysis, and horizontal & vertical analysis.
- **Decision-Making Insights:** How financial analysis aids in investment, financing, and strategic decisions.

Suggested Textbooks:

1. Financial Management: Text and Problems by M Y Khan & P K Jain, Publisher: TMH, New Delhi.
2. Financial Management Theory & Practice by Prasanna Chandra, Publisher: TMH, New Delhi.
3. Financial Management by I M Pandey, Publisher: Vikas Publishing House, New Delhi.
4. Advanced Financial Management by Dr. Mahesh Abale & Dr. Shripraka sh Soni, Himalaya Publication House
5. Financial Management by Ravi Kishore, Publisher: Taxman's Publishing House, New Delhi.

Suggested Reference Books:
1. Financial Management: Theory & Practice by Eugene F. Brigham, Michael C. Ehrhardt
2. Fundamentals of Financial Management by Van Horne, Publisher: Prentice Hall of India.

Semester III	303	On The Job Training (OJT)
8 Credits	LTP: 0:2:14	Subject Core Course – Specialization Specific

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 303.1	REMEMBERING	IDENTIFY and DESCRIBE the fundamental aspects of the organization and industry where the OJT is conducted, including the company's profile, core business activities, and organizational structure.
CO 303.2	UNDERSTANDING	EXPLAIN the relevance and application of theoretical concepts learned in the classroom to real-world business practices observed during the OJT
CO 303.3	APPLYING	UTILIZE relevant theoretical knowledge and technical skills in real-world tasks and projects during the OJT in a professional setting
CO 303.4	ANALYSING	EXAMINE and break down the problems or tasks undertaken during the OJT, identifying the key issues, underlying causes, and possible solutions.
CO 303.5	EVALUATING	ASSESS the effectiveness of the strategies and solutions implemented during the OJT, from the standpoint of utility to the host organization, the feedback from the industry mentor.
CO 303.6	CREATING	DEVELOP a comprehensive OJT report and presentation that integrates the learning experiences, data collected, analysis, and outcomes of the project, demonstrating a clear connection between academic knowledge and practical application.

A] *Preamble:*

On Job Training (OJT) is an integral component of the MBA program that provides students with a unique opportunity to bridge the gap between theoretical knowledge gained in the classroom and practical application in a real-world environment. This training aims to equip students with both technical and non-technical skills that are essential for success in the industry.

Each student shall undertake an On-the-Job Training (OJT) at the end of Second Semester and complete the same before the commencement of the Third Semester.

B] Guidelines for the On-Job Training (OJT)

B - 1] Nature of the OJT:

1. The On-the-Job Training (OJT) program shall be of 12 weeks (3 months).
2. 8 weeks of training in the organization (industry / bank etc.) with 30 hours of work per week.
3. 4 Weeks of pre and post training work including proposal making, analysis, report preparation and etc.
4. OJT must be conducted outside the academic institution to expose students to real-world work environments.
5. **<u>OJT must be related to the intended specialization of the student.</u>**
6. OJT must be done individually. Group projects are not permitted.
7. OJT may involve actual tasks relevant to the area of specialization of the student and as per the demands of the industry / organization where the student is carrying out the OJT.
8. OJT should involve fieldwork / desk work in the organisation; **<u>online OJT is not permitted</u>**.
9. Primary data collection is mandatory for Research based OJT.
10. Research based OJT can be quantitative / qualitative in nature or even use mixed approaches.
11. Research based OJT can involve surveys, interviews, case studies or observation studies.
12. It is mandatory for the student to seek advance written approval from the faculty mentor and the Director of the Institute about the type of work and organization before commencing the OJT.

B-2] Permissible Partner Organizations:

Students have the flexibility to conduct the OJT with any of the following organizations:

1. Companies listed on either NSE or BSE in India /abroad
2. Unlisted subsidiaries of Listed Companies.
3. Government / Semi-Government Undertaking / PSU
4. Government Offices
5. Start Ups with an existence of 3 years or more and/or manpower more than 10.
6. Family managed businesses with an existence of 10 years or more and manpower more than 100.
7. Large Cooperative Societies / NGOs with an existence of 5 years or more operating in areas such as agriculture, food processing, health care, retail, banking, etc.

B-3] OJT mentors:

a) Each student shall be assigned two mentors

i. a faculty mentor from the institution

ii. an industry mentor from the host organization where the student undertakes the OJT.

b) **Industry Mentor Role:** The industry mentor plays a crucial role in guiding the student during the internship. They ensure that the internee fulfils the requirements of the organization and successfully meets the demands of the assigned project. Through their expertise and experience, industry mentors provide valuable insights into real-world practices and industry expectations.

c) **Faculty Mentor Role:** The faculty mentor serves as the overall coordinator of the OJT program of the assigned / allotted students. They oversee the entire internship process and evaluate the quality of the OJT in a consistent manner across all the assigned students. The faculty mentor ensures that the OJT aligns with the MBA program's objectives and provides valuable learning opportunities. They also facilitate communication between the institution, industry mentor, and student to ensure a fruitful OJT experience.

B-4] Submission of documentation for OJT:

a) **OJT Progress diary**: Each student shall maintain an OJT Progress Diary detailing the work carried out and the progress achieved on a daily basis. Daily entry can be of 3- 4 sentences giving a very brief account of the learning/activities/ tasks / interaction taken place. The faculty mentor will be monitoring the entries in the diary regularly. The student shall submit the duly signed and stamped OJT Progress Diary along with the OJT Report. Soft copy diaries (with time stamp) are also permitted.

b) **Formal Evaluation from the industry mentor**: The students shall also seek a formal evaluation cum feedback of their OJT from the industry mentor. The formal evaluation cum feedback by the industry mentor shall comment on the nature and quantum of work undertaken by the student, the effectiveness and overall professionalism. The learning outcomes of the OJT and utility of the OJT to the host organization must be specifically highlighted in the formal evaluation cum feedback by the industry mentor. The OJT evaluation sheet duly signed and stamped by the industry mentor shall be included in the final OJT report.

c) **OJT report**: A student is expected to make a report based on the OJT he or she has done in an organization. The student shall submit TWO hard copies & soft copy of the OJT report to the institute. One hard copy of the OJT 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 OJT reports on both faces of the paper. Spiral bound copies may be accepted.

B-5] OJT report should contain the following:

The OJT 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, pictures, screenshots, AV material, etc.
9. Learning of the student through the OJT
10. Consideration to factors such as environment, safety, ethics, cost, professional (national & international) standards
11. Contribution to the host organization
12. References in appropriate referencing styles. (APA, MLA, Harvard, Chicago Style etc.)

B-6] Interaction between mentors:

It is suggested that a meet-up involving the intern, industry mentor, and the faculty mentor should be done as a mid- term review to ensure the smooth conduct of the OJT. The meeting can preferably be online to save time and resources. The meeting ensures the synergy between all stakeholders of the OJT. A typical meeting can be of around 15 minutes where at the initial stage the intern briefs about the work and interaction goes for about 10 minutes. This can be followed by the interaction of the mentors in the absence of the intern. This ensures that issues between the intern and the organization, if any, are resolved amicably.

B-7] OJT workload for the faculty: Every student is provided with a faculty member as a mentor. So, a faculty mentor will have a few students under him/her. A faculty mentor is the overall in-charge of the OJT of the allocated students. He/she constantly monitors the progress of the OJT by regularly overseeing the diary, interacting with the industry mentor, and guiding on the report writing etc.

B-8] Evaluation Pattern:

Total Marks: 200
Formative Assessment:80 Marks
Summative Assessment:120
Marks

1] Formative Assessment Weightage (80 marks):

1. Executive Summary - 05 marks
2. Organization profile - 05 marks
3. Outline of the problem/task undertaken - 10 marks
4. Research methodology & data analysis (in case of research projects only) - 10 marks

   OR

   Relevant activity charts, tables, graphs, diagrams, pictures, screenshots, AV material, etc. - 10 marks
5. Learning of the student through the OJT - 10 marks
6. Consideration to factors such as environment, safety, ethics, cost, professional (national & international) standards - 10 marks
7. Contribution to the host organization - 10 marks
8. References in appropriate referencing styles. (APA, MLA, Harvard, Chicago Style etc.) - 5 marks
9. Internal Viva-Voce - 15 marks

2] Summative Assessment Weightage (120 marks):

1. There shall be a panel of 2 examiners for the Final Viva-Voce
2. University shall nominate External Examiners
3. Director shall nominate Internal Examiners
4. Presentation by each student along with a spiral bound report is mandatory
5. Students will deliver a presentation of 15 minutes about their OJT project.
6. Weightages for summative assessment shall be as follows
   a) Presentation – 30 marks
   b) Viva-Voce – 30 marks
   c) Report – 30 marks
   d) Ability to connect with the theoretical & conceptual frame work – 30 marks

The Internal & the External viva-voce shall evaluate the candidate 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

Presentation could be through any of the enlisted formats (this is an indicative list and innovative formats if any beyond this list may be adopted) -

1. Traditional Slide Deck Presentation
2. Infographics
3. Video presentation
4. Paper presentation
5. Poster presentation
6. Webinar or online presentation
7. TED-style presentation

Storytelling Presentation etc

Semester III	**304**	**SE 01: Introduction to Fintech**
3 Credits	**LTP: 2:1:1**	**Subject Elective Course – Fintech Management**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 304.1	REMEMBERING	Remember concepts such as Crowdfunding,Cryptocurrency, blockchain, and machine learning.
CO 304.2	UNDERSTANDING	Understand the concept of Cryptocurrency and blockchain and itsapplication in the finance sector
CO 304.3	DESCRIBE	Describe alternative finances Cryptocurrencies, blockchain andthe technologies supporting these
CO 304.4	APPLY	Apply technology to various components & processes of financialservices
CO 304.5	EVALUATING	Evaluate the impact of Fintech solutions on business sectors and customers.

1. **Introduction to FinTech** *(5+1)*

- **Understanding FinTech:** Definition, scope, and significance in modern financial systems.
- **Core Goals of FinTech:** Financial inclusion, cost reduction, innovation, and enhanced customer experience.
- **Key Areas in FinTech:** Digital payments, lending, wealth management, insurance (InsurTech), and regulatory technology (RegTech).
- **Economic Impact of FinTech:** How FinTech contributes to financial stability, market expansion, and innovation.
- **Evolution Across Sectors:** FinTech in traditional banking, startups, and emerging markets.
- **Recent Developments & Future Trends:** AI-driven solutions, DeFi (Decentralized Finance), embedded finance, and digital banking.

2. **Technology, Payments, and Legal Aspects** *(6+1)*

- **Cryptocurrencies & Blockchain:** Introduction to Bitcoin, Ethereum, blockchain fundamentals, smart contracts, and tokenization.
- **AI & Machine Learning in Payments:** Fraud detection, risk assessment, and automated processing.
- **Modern Payment Systems:** UPI, IMPS, RTGS, digital wallets, BNPL (Buy Now, Pay Later), and cross-border transactions.
- **Legal & Regulatory Frameworks:** Cryptocurrency regulations, KYC/AML compliance, data protection laws, and RBI guidelines.
- **Regulation of Payment Systems:** Overview of NPCI (India), and global payment system policies.

3. Digital Finance and Alternative Finance *(5+1)*

- **Historical Evolution:** From traditional banking to digital-first finance.
- **Crowdfunding & P2P Lending:** Marketplace lending, equity crowdfunding, donation-based crowdfunding, and regulatory challenges.
- **Initial Coin Offerings (ICOs) & Tokenization:** Mechanisms, risks, and future alternatives (STOs, IEOs, DeFi).
- **AI in FinTech:** How AI is driving personalized financial services, robo-advisory platforms, and automated investing.
- **Alternative Finance Models:** Revenue-based financing, impact investing, and decentralized finance (DeFi).

4. **AI, Machine Learning, and Data Analytics in FinTech** *(7+1)*

- **AI & ML in FinTech:** Applications in fraud detection, robo-advisors, personalized banking, and credit risk assessment.
- **Big Data & Predictive Analytics:** How financial institutions use big data to enhance decision-making.
- **Algorithmic Trading & Quantitative Finance:** AI-powered trading strategies and risk mitigation.
- **Regulatory & Ethical Considerations:** Bias in AI models, data privacy, and accountability in financial algorithms.
- **Real-World Applications:** AI adoption in Indian financial services, including case studies from Paytm, Zerodha, and Razorpay.

5. **FinTech Regulation and RegTech** *(7+1)*

- **Understanding FinTech Regulations:** Key global and domestic financial regulations (RBI, SEBI, GDPR, PSD2, Dodd-Frank Act).
- **RegTech Evolution:** Automating compliance, fraud detection, and KYC/AML verification using technology.
- **Challenges in RegTech Adoption:** Cost, implementation barriers, and data security issues.
- **AI & Blockchain in Compliance:** How AI and blockchain are used for fraud detection and automated regulatory reporting.
- **Future of RegTech:** Trends like real-time compliance, AI-driven regulatory monitoring, and risk-based supervision.

Suggested Text Books :

1. Blockchain Applications: A Hands-on Approach by Arshdeep Bahga and Vijay Madisetti, Vpt, ISBN-13: 978-0996025560.
2. Bitcoin and Cryptocurrency Technologies: A Comprehensive Introduction by Arvind Narayanan, Joseph Bonneau, Edward Felten, Andrew Miller, Steven Goldfeder, PrincetonUniversity Press, ISBN-13: 978-0691171692.
3. An Introduction to Statistical Learning: with Applications in R (Springer Texts in Statistics)by Gareth James, Daniela Witten, Trevor Hastie, Robert Tibshirani, Springer, ISBN-13: 978-1461471370.

Semester III	305	SE 02: Financial Modelling with Excel
3 Credits	LTP: 2:1:1	Subject Elective Course – Fintech Management

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 305.1	REMEMBERING	Remember the concepts, terminologies, frameworks, tools, and techniques ofFinancial Modelling
CO 305.2	UNDERSTANDING	Understand the applications and use of MS Excel in Financial Modelling and itsdifferent techniques
CO 305.3	APPLYING	Develop, Apply, and use the core functionality of MS Excel in decision framework to solve managerial problems
CO 305.4	ANALYSING	Analyse different financial models to eliminate the substantial risk of poorspreadsheet coding
CO 305.5	EVALUATING	Formulate an idea and acceptable solutions to solve different problems in thearea of financial management
CO 305.6	CREATING	Build financial models by making appropriate assumptions on relevant financial factors.

1. Foundations and Essentials of Financial Modeling *(8+1)*

- **Core Excel Skills:** Essential formulas (SUMIF, INDEX-MATCH, LOOKUP), formatting, and data validation.
- **Best Practices in Model Design:** Structuring financial models for accuracy, transparency, and scalability.
- **Building a Basic Income Statement Model:** Linking revenue, expenses, and profit calculations.
- **Financial Statement Integration:** Understanding the relationship between income statements, balance sheets, and cash flow statements.
- **Revenue Forecasting Techniques:** Trend analysis, seasonality adjustments, and market-driven projections.
- **Pro Forma Statement Building:** Constructing forward-looking financial statements based on assumptions.
- **Advanced Excel Techniques:** Data tables, named ranges, goal seek, and error checking.
- **Troubleshooting & Debugging:** Fixing circular references, model audits, and sensitivity testing.

2. Financial Ratios, Key Metrics, and Valuation Basics *(3+1)*

- **Financial Ratios & KPIs:** Liquidity, profitability, efficiency, leverage, and valuation ratios.
- **Ratio Analysis for Business Decisions:** Evaluating company health and investment attractiveness.
- **DCF Valuation Fundamentals:** Concept of time value of money, discount rates, and forecasting.

- **Free Cash Flow (FCF) Calculations:** Adjusting for capital expenditures, working capital, and debt.
- **Weighted Average Cost of Capital (WACC):** Understanding the cost of equity and debt in valuation.
- **Building a Simple DCF Model:** Practical application with case studies.

3. Valuation Models and Advanced Analysis *(8+1)*

- **Comparable Company Analysis (CCA):** Industry benchmarking, selecting comparables, and EV/EBITDA multiples.
- **Precedent Transactions Method:** Historical deal analysis, premium paid, and transaction structures.
- **Scenario & Sensitivity Analysis:** Creating best/worst-case scenarios, analyzing key drivers.
- **DCF Model in Practice:** Fine-tuning assumptions, linking forecasts, and risk assessment.
- **Using Advanced Excel Functions:** OFFSET, INDIRECT, CHOOSE, and dynamic range applications.
- **Case Study:** Valuing a real-world company using a combination of methods.

4. Specialized Financial Models *(8+2)*

- **Leveraged Buyout (LBO) Modeling:** Debt structuring, IRR calculation, and returns analysis.
- **Debt Schedule & Cash Flow Projections:** Principal repayment, interest expense, and debt refinancing.
- **Project Finance Modeling:** Infrastructure and real estate financial models, debt service coverage ratio (DSCR), net present value (NPV), and internal rate of return (IRR).
- **Risk Assessment in Project Finance:** Stress testing assumptions, inflation impact, and contract structuring.
- **Case Study:** Real-life LBO or infrastructure finance project analysis.

5. Automation, Case Studies, and Final Project ***(8+1)***

- **VBA for Financial Modeling:** Automating workflows, building custom functions, and improving efficiency.
- **Dynamic Model Building:** Creating flexible, scenario-based models with user inputs.
- **Industry Case Studies:** Analysis of actual financial models from investment banking, startups, and fintech firms.

Suggested Text Books:

1. Business Data Analysis using Excel – David Whigham – Oxford University Press
2. Mastering Financial Modelling in Microsoft Excel – Alastair L. Day
3. Practical Financial Modelling – Jonathan Swan

Suggested Reference Books:

1. Financial Modelling Using Excel and VBA by Chandan Sengupta, John Wiley & Sons
2. Building Financial Models with Microsoft Excel: A Guide for Business Professionals, K. Scott

Proctor, 2nd Edition,John Wiley & Sons

3. Advanced Modelling in Finance using Excel and VBA By Mary Jackson, Mike Staunton, John Wiley & Sons
4. Next Generation Excel: Modelling in Excel for Analysts and MBAs By Isaac Gottlieb, John Wiley & Sons

Semester III	**306**	**SE 03 : Financial Risk Analysis**
3 Credit	**LTP: 2:2:1**	**Subject Elective Course – Fintech Management**

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

CO#	COGNITIVE ABILITY	COURSE OUTCOMES
CO 306.1	REMEMBERING	Describe various concepts associated with risk management and financial risk management.
CO 306.2	UNDERSTANDING	Exemplify the financial risk management processes and frameworks.
CO 306.3	APPLYING	Determine the various building blocks of risk management systems andstrategies.
CO 306.4	ANALYZING	Classify various risks associated with enterprises, banks, insurance, etc.
CO 306.5	EVALUATING	Formulate the strategies to overcome currency risk, credit risk,interest rate risk, legal risk, asset liability risk, liquidity risk, etc.

1. Basics of Risk Management & Financial Risk Management *(6+3)*

- **Understanding Risk:** Definition, types (credit, market, operational, etc.), and impact on organizations.
- **Risk vs. Uncertainty:** Key differences and real-world implications.
- **Principles & Importance of Risk Management:** Why risk management is crucial for businesses and financial institutions.
- **Risk Management Process & Framework:** Identification, assessment, mitigation, and monitoring.
- **Financial Risk Management:** Concept, importance, scope, and key processes.
- **Case Studies:** Real-world risk failures and lessons learned.

2. Risk & Volatility Measurement *(6+3)*

- **Need for Risk Management:** How financial rates and prices influence risk.
- **Key Market Factors:** Interest rates, foreign exchange rates, commodity prices, and operational risk.
- **Market Data Analysis:** Understanding asset price distributions, return calculations, and risk modeling.
- **Value-at-Risk (VaR):** Concept, computation (variance-covariance approach), and portfolio risk analysis.

- **Volatility Measurement:** EWMA, ARCH & GARCH models, volatility clustering, and time-varying volatility.
- **Advanced Risk Metrics:** Expected shortfalls, treasury applications, and stress testing.
- **Practical Applications:** Portfolio risk analysis and backtesting risk models.

3. Risk Management in Banking *(5+3)*

- **Banking Risk Overview:** Credit risk, liquidity risk, interest rate risk, market risk, and counterparty risk.
- **Regulatory Risks & Compliance:** Legal risks, environmental risks, rating risks, and capital allocation risks.
- **Loan Review & NPA Management:** Identifying and managing non-performing assets.
- **Investment Banking Risks:** Capital risk, structured products, and securitization risks.
- **Basel Norms for Banking:** Basel I, II, and III, capital adequacy requirements, and stress testing.
- **Risk Mitigation Strategies:** Use of derivatives, insurance, and regulatory compliance tools.
- **Case Studies:** Notable banking failures and successful risk management strategies.

4. Enterprise Risk Management (ERM) & Corporate Risk *(7+1)*

- **Understanding ERM:** Scope, concept, and approaches to corporate risk management.
- **Types of Enterprise Risks:** Technology risk, business strategy risk, legal and regulatory risk, product liability risk.
- **Actuarial & Asset Liability Risks:** Underwriting risks, capital management, and investment risks.
- **Investment Risk Management for Insurers:** Frameworks, policies, and strategies.
- **ERM Frameworks:** COSO ERM, ISO 31000(frameworks for risk management), and real-world ERM applications.
- **Practical Applications:** Industry examples of ERM success and failures.

5. Advanced Risk Analysis & Emerging Trends in Risk Management *(9+2)*

- **Credit Risk & Probability of Default:** Credit ratings, transition matrices, and the KMV Model.
- **Currency & Interest Rate Risk:** Covered and uncovered interest rate parity, yen-carry trade, and forex market risk.
- **Cross-Currency Risk Analysis:** Forwards, non-deliverable forwards (NDFs), and hedging strategies.
- **Cybersecurity Risks:** FinTech risks, fraud detection, and digital risk management.
- **Emerging Risks:** ESG (Environmental, Social, and Governance) risks, climate change risks, and sustainable finance.
- **AI & Machine Learning in Risk Management:** AI-driven risk models, fraud detection, and automated compliance.
- **Future Trends & Skillsets:** The evolving landscape of risk management in FinTech.

Suggested Text Books:

1. Corporate Financial and Risk Management - Nersesian, Roy L. - Jaico Publishing House
2. Financial Risk Management: A Practitioner's Guide to Managing Market and Credit Risk - Steve

3. Modern Corporate Risk Management: A Blueprint for Positive Change and Effectiveness by Koller

Suggested Reference Book:

1. Investment Science. Luenberger, Oxford University Press, 1998
2. Options, Futures and other Derivatives, John Hull, 7th Edition, Prentice Hall, 2008
3. An Introduction to Market Risk Measurement by Dowd, Kevin, John Wiley & Sons.
4. Risk Management and Financial Institutions by Hull, John C., Pearson, Prentice Hall, 2007 Measuring MarketRisk by Dowd, Kevin, John Wiley & Sons, 2005. Value at Risk by Jorion, Philippe, McGraw Hill.
5. Beyond Value at Risk, by Dowd, Kevin, John Wiley & Sons Mastering Value at Risk ,Butler, Cormac,

Semester III	**307**	**SE 04 - Fundamental and Technical Analysis**
3 Credits	**LTP: 2:1:1**	**Subject Elective Course – Fintech Management**

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

CO#	**COGNITIVE ABILITIES**	**COURSE OUTCOMES**
CO 307.1	REMEMBERING	Remember the key concepts in Fundamental & Technical Analysis.
CO 307.2	UNDERSTANDING	Explain various parameters, charts, and theories of Fundamental &Technical Analysis and Investment psychology
CO 307.3	APPLYING	Make Practical Use of Financial Statement Analysis, Various Ratios, Theories, and Charts of Fundamental & Technical Analysis.
CO 307.4	ANALYSING	Analyse And Forecast expected Market Price of securities in order to take and execute Investment Decisions.
CO 307.5	EVALUATING	Formulate an Ideal Portfolio of Investment using Fundamental& Technical Analysis.
CO 307.6	CREATING	Creating filters for identifying prospective scrips using ICTs.

1. Introduction to Fundamental Analysis *(6+1)*

- **Fundamental Analysis Overview:** Meaning, definition, and types.
- **Role of Fundamental Analysis in Investing:** How it helps in decision-making.
- **Basic Financial Concepts:**
    - **Time Value of Money** – Present vs. future value.
    - **Inflation & Interest Rates** – Impact on investments.
    - **Opportunity Cost** – Evaluating alternatives.
    - **Risk & Return** – Understanding risk-adjusted returns.
    - **Equity Risk Premium & Beta** – Measuring market risk.
- **Different Types of Analysis:**
    - **Economic Analysis:** GDP, inflation, fiscal and monetary policy.

    - **Industry Analysis:** Market size, competition, business cycles.
    - **Company Analysis:** Financial health, competitive edge, management quality.
    - **Qualitative vs. Quantitative Analysis:** Combining numbers with strategy.
- **Practical Case Studies:** Understanding stock movements with real data.

2. Understanding Financial Statements *(7+2)*

- **Key Reports:** Director's Report, Auditor's Report – What investors should look for.
- **Financial Statements Analysis:**
    - **Income Statement:** Revenues, expenses, and profitability.
    - **Balance Sheet:** Assets, liabilities, and equity.
    - **Cash Flow Statement:** Operating, investing, and financing activities.
    - **Schedules and Notes to Balance Sheet:** Hidden risks and insights.
- **Comparative and Common Size Statements:** Analyzing trends over time.
- **Financial Ratios & Du-Pont Analysis:**
    - Profitability ratios, liquidity ratios, solvency ratios.
    - Understanding ROE (Return on Equity) breakdown.
- **Peer Comparison & Industry Benchmarking:** Finding undervalued stocks.
- **Corporate Governance & Management Analysis:** Impact on investment decisions.
- **Hands-on Financial Statement Analysis Exercise.**

3. Valuation Methodologies *(7+1)*

- **Value vs. Price:** Understanding market behavior.
- **Why Valuation Matters:** Investment decisions and business assessments.
- **Top-Down Approach:**
    - **Economy-Level Analysis:** Macroeconomic indicators.
    - **Industry-Level Analysis:** Trends, growth potential.
    - **Company-Level Analysis:** Financial performance and projections.
- **Valuation Models:**
    - **Asset-Based Valuation:** Book value vs. intrinsic value.
    - **Earnings-Based Valuation:** Price-to-earnings, PEG ratio.
    - **Discounted Cash Flow (DCF) Model:** Free Cash Flow to Firm (FCFF).
    - **Dividend Discount Model (DDM):** Evaluating dividend-paying stocks.
    - **Relative Valuation:** Price/Sales, Price/Book, Enterprise Value.
    - **Capital Asset Pricing Model (CAPM):** Cost of capital and risk-return tradeoff.
- **Real-world Valuation Exercises & Case Studies.**

4. Introduction to Technical Analysis *(5+1)*

- **Definition & Concept:** How technical analysis differs from fundamental analysis.
- **Price Movements & Market Psychology:** Understanding trends and patterns.
- **Key Assumptions in Technical Analysis:** Strengths and limitations.
- **Trading Strategies & Risk Management:**
    - **Dow Theory:** Market cycles and trends.
    - **Trading Psychology:** Managing emotions and biases.
    - **Risk Management Techniques:** Stop-loss, position sizing.
- **Hands-on Trading Simulations.**

5. Chart Patterns, Trends, and Technical Indicators *(12+3)*

- **Understanding Different Charts:**
    - **Bullish & Bearish Trends.**
    - **Price Chart Types:** Line chart, bar chart, candle chart, point & figure chart.
    - **Candlestick Patterns:** One-candle, two-candle, and three-candle formations.
- **Pattern Recognition in Trading:**
    - **Support & Resistance Levels.**
    - **Chart Patterns:** Head & Shoulders, Double Top & Bottom, Gap Theory.

Suggested Text Books:

1. Securities Analysis (Benjamin Graham, David L Dodd, McGraw Hill Education, 6th edition)
2. Investment Analysis And Portfolio Management (Prasanna Chandra, McGraw Hill Education, Fifth Edition)
3. Fundamental Analysis For Dummies (Matt Krantz, For Dummies, 2nd Edition)
4. Investment Management (V.K.Bhalla, S.Chand, 19th Revised Edition)
5. NSE Work Book- (NSE Academy)
6. Technical Analysis of Financial Market: A comprehensive guide to trading methods & applications (John J. Murphy, New York Institute of Finance, Penguin Group, First Edition)

Suggested Reference Books:

1. The Intelligent Investor (Benjamin Graham, Harper Business 2011th Edition)
2. Investments (ZVI Bodie, Alex Kane, Alan J Marcus, Pitab Mohanty, Tata McGraw Hill , 6th Edition)
3. Technical Analysis of Stock Trend (Robert D, Edwards, John Magee, W.H.C. Bassetti, Snowball Publishing, 8th edition)

Suggested Journals:

1. BSE NSE
2. Dalal Street Capital Market

Semester III	**308**	**SE 05- Global Financial Markets**
3 Credits	**LTP: 2:1:1**	**Subject Elective Course – Fintech Management**

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

CO#	**COGNITIVE ABILITIES**	**COURSE OUTCOMES**
CO 308.1	REMEMBERING	Enumerate the key terms associated with International Finance.
CO 308.2	UNDERSTANDING	Summarize the various the concepts related to regulators, financial markets,Financial Instruments, tax structures at international level.
CO 308.3	APPLYING	Illustrate the role of international monitory systems & intermediaries in Globalfinancial market.

CO 308.4	ANALYSING	Inspect the various parameters of global financial market and interpret bestpossible international investment opportunities.
CO 308.5	EVALUATING	Determine the various strategies to start investment or business at theinternational level by considering various factors of international finance.
CO 308.6	CREATING	Formulate the investment plan or business plan by adapting international financeenvironment.

1. Fundamentals of International Finance and Monetary Systems (8+1)

- **Introduction to International Finance**: Meaning, scope, globalization, goals, and structure of the global financial system.
- **Global Financial System & Challenges**: The globalization process, emerging challenges, and evolution of the international monetary system (Gold Standard, Bretton Woods, and current exchange rate arrangements).
- **Key International Financial Institutions**: Role of IMF, World Bank, international credit rating agencies.
- **Balance of Payments (BoP)**: Components, surplus, deficits, and their implications on global trade and finance.

2. Foreign Exchange Markets & Exchange Rate Theories (8+2)

- **Foreign Exchange Markets**: Structure, transaction types, exchange rate quotations, and arbitrage opportunities.
- **Exchange Rate Theories**: Interest rate parity, purchasing power parity (PPP), Fisher's parity, and methods for forecasting exchange rates (efficient market, fundamental, and technical approaches).
- **Currency Transactions & Risk Management**: Spot transactions, forward contracts, currency swaps, futures, and options.
- **Practical Exposure Management**: Tools and strategies for managing transaction exposure.

3. International Lending & Securities Markets (7+2)

- **International Credit Markets**: Types of international lending, financial conditions, key intermediaries, and market trends.
- **Global Securities & Bond Markets**: Foreign equities, euro equities, depositary receipts (ADR & GDR), international bond markets (foreign bonds, Eurobonds, floating rate notes, zero-coupon bonds, dual currency bonds).
- **Issuance & Compliance**: Bond issuance procedures, international taxation, and regulatory challenges.
- **Money Laundering & Compliance**: International double taxation, money laundering risks, FATF role, and global regulations.

4. International Risk, Cash & Receivables Management (8+1)

- **Foreign Exchange & Currency Risks**: Types of risks (transactional, translational, economic), FDI risks, and political risk assessment.

- **International Financial Standards**: IFRS, Indian Accounting Standards, and foreign transaction reporting.
- **Trade Settlement & Cash Management**: Foreign exchange trade settlement (SWIFT, CHIPS, CHAPS), effective receivables management, and cash flow strategies for international businesses.

5. Emerging Markets, Financial Integration & Global Market Trends (7+1)

- **Emerging Markets & Global Integration**: Characteristics, growth opportunities, risks, and investment avenues (FDI, FPI).
- **Current & Future Market Trends**: Sustainable finance, green bonds, fintech innovations (algorithmic trading, blockchain, digital currencies).
- **Geopolitical & Economic Impact**: Trade wars, geopolitical risks, COVID-19’s influence on global finance, and India's evolving role in global markets.

Suggested Textbooks:

1. International Finance by Rajiv Srivastav, Oxford University Press
2. International Financial Management by P.G. Apte 2010 Ed.
3. International Financial Management by Vyuptakesh Sharan
4. International Financial Management by S.P. Sriniwasan
5. International Finance by Mauric Levi, Keith P. (2013 Edition)
6. Foreign Exchange, International Finance, Risk Management by A.V. Rajwade
7. Currency Exposures and Derivatives by A.V Rajwade

Suggested Reference Books:

1. International Finance, by Maurice Levi, 5th edition, Mc Graw Hill
2. International Financial Management by Jeff Madura; 2008, Cengage Learning
3. International Financial Management by Eun and Resnick, 4th edition Tata McGraw Hill
4. International Economics by Carbaugh 11th Edition, Cengage Learning.
5. Paul R Krugman and Maurice Obstfeld, ‘International Economics’, 8th edition
6. Multinational Financial Management by Alan Shapiro, 9th Ed, Wiley

Semester III	**309**	**SE 06 - Personal Finance and Wealth Management**
3 Credits	**LTP: 2:1:0**	**Subject Elective Course – Fintech Management**

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

CO#	**COGNITIVE ABILITIES**	**COURSE OUTCOMES**
CO 309.1	REMEMBERING	Understand the need and aspects of personal financial planning
CO 309.2	UNDERSTANDING	Describe the investment options available to an individual
CO 309.3	APPLYING	Identify types of risk and means of managing it
CO 309.4	ANALYSING	Determine the ways of personal tax planning
CO 309.5	EVALUATING	Explain retirement and estate planning and design financial plan.
CO 309.6	CREATING	Create a financial plan for a variety of individuals.

1. Fundamentals of Personal Finance

- **Introduction to Personal Financial Planning**: Importance, setting financial goals, and steps to create a financial plan.
- **Assessing Financial Health**: Understanding net worth, cash flow, and savings rate.
- **Financial Planning Tools & Resources**: Budgeting apps, financial tracking tools, and basic financial calculators.
- **Practical Exercise**: Conducting a personal financial health check and setting short-term & long-term financial goals.

2. Financial Mathematics & Time Value of Money

- **Understanding Time Value of Money**: Concept, significance, and real-life applications.
- **Key Financial Calculations**: Present value, future value, annuities, perpetuities, and compounding interest.
- **Impact of Inflation on Financial Goals**: How inflation affects savings, investments, and long-term planning.
- **Case Study**: Estimating the future cost of education and retirement planning using inflation-adjusted calculations.

3. Investment Basics & Portfolio Management

- **Overview of Investment Types**: Stocks, bonds, mutual funds, ETFs, real estate, gold, and alternative assets.
- **Understanding Risk & Return**: Risk assessment, expected returns, and their relationship in investment decision-making.
- **Diversification & Asset Allocation Strategies**: How to create a well-balanced investment portfolio.
- **Practical Activity**: Designing a personal investment portfolio based on different risk appetites and financial goals.

4. Stock Market, Fixed-Income Investments & Tax Planning

- **Stock Market Fundamentals**: Market participants, stock exchanges, and investment methods.
- **Stock Analysis Approaches**: Fundamental analysis (P/E ratio, earnings, dividends) vs. technical analysis (charts, trends).
- **Introduction to Bonds & Fixed-Income Securities**: Bond pricing, yield, risks, and role in a portfolio.
- **Tax Planning for Individuals**: Basics of income tax, deductions, exemptions, and tax-efficient investment strategies (ELSS, PPF, NPS).
- **Practical Exercise**: Evaluating stocks and bonds for investment based on market trends and tax implications.

Unit 5: Retirement Planning, Wealth Accumulation, Insurance & Estate Planning

- **Retirement Planning Strategies**: How to set retirement goals and create a financial roadmap.

- **Retirement Income Sources**: Pensions, provident funds, annuities, and systematic withdrawal plans.
- **Wealth Accumulation Tools**: SIPs, real estate, passive income strategies, and financial security planning.
- **Case Study**: Developing a step-by-step personal retirement plan.
- **Insurance & Risk Management**: Life, health, and general insurance—how to determine coverage needs.
- **Estate Planning Essentials**: Wills, trusts, inheritance tax, and wealth transfer strategies.
- **Practical Exercise**: Creating a personal estate and insurance plan.

Suggested Text Books:

1. Basics of Personal Financial Planning Insurance Education Series by NIA, K C Mishra, Steward Doss,Cengage Delmar Learning India Pvt. Ltd.

Suggested Reference Books:

1. Introduction to Financial Planning, Indian Institute of Banking & Finance
2. Personal Financial Planning Theory and Practice, Kaplan Schweser
3. Personal Finance, E. Thomas Gorman and Raymond E. Forgue, Southwest-Western Cengage Learning.
4. Fundamentals of Financial Planning, Michael Dalton, Joesph Gillice, James Dalton and Thomas Langdon, MoneyEducation
5. Personal Financial Planning, Benedict Koh Wai Mun Fong, Pearson
6. Personal Financial Planning, Lawrence J. Gitman , Michael D.Joehnk, Cengage NOW.

Semester III	**310**	**SE 07 - Fintech Regulation & Ethics**
3 Credits	**LTP: 2:1:0**	**Subject Elective Course – Fintech Management**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 310.1	REMEMBERING	Describe the basic concepts in fintech regulation
CO 310.2	UNDERSTANDING	Identify the participants in the fintech domain
CO 310.3	APPLYING	Explain the legal framework in fintech regulation
CO 310.4	ANALYSING	Analyse the role of regulatory mechanisms in fintech
CO 310.5	EVALUATING	Summarize the ethical issues that can arise in fintech

1. Introduction to Fintech and Its Regulatory Landscape *(8+2)*

- **Understanding Fintech**: Definitions, scope, history, evolution, and major trends in financial technology.
- **Key Stakeholders**: Role of startups, financial institutions, regulators, and tech companies in the fintech ecosystem.
- **Impact on Traditional Financial Services**: How fintech disrupts banking, payments, lending, and investment services.

- **Global Regulatory Overview**: Major regulatory authorities (RBI, SEBI, FCA, SEC) and key regulations (PSD2, MiFID II, Dodd-Frank).

2. Regulatory Framework and Compliance in Fintech *(7+2)*

- **Regulatory Landscape in India**: Role of RBI and SEBI in fintech oversight, policy changes, and compliance mandates. **k**ey **Compliance Requirements**:
- **Know Your Customer (KYC) & Anti-Money Laundering (AML)** regulations.
- **Data Protection Laws**: GDPR (EU), CCPA (USA), and India's Data Protection Bill.
- **Risk Management in Fintech**: Identifying, assessing, and mitigating regulatory risks.
- **Building a Fintech Compliance Framework**: Steps to create a strong compliance system.

3. Ethical Dimensions and Consumer Protection in Fintech *(8+2)*

- **Ethics in Fintech**: Core ethical principles, decision-making frameworks, and ethical challenges.
- **Data Privacy & Security**: Consumer trust, data handling responsibilities, and cybersecurity in fintech.
- **Consumer Protection Laws**:
- Fair lending practices and transparency in financial products.
- Financial inclusion and responsible fintech innovation.
- Addressing fintech's impact on vulnerable groups.

4. Trends, Innovations, and Challenges in Fintech Regulation *(8+2)*

- Blockchain & Cryptocurrencies: Decentralized finance (DeFi) and regulatory concerns.
- Artificial Intelligence (AI) in Fintech: Ethical use, bias, and regulatory challenges.
- Digital Lending & BNPL (Buy Now, Pay Later): Compliance and risk assessment
- **Regulatory Sandboxes & Innovation Hubs**: How regulators support fintech innovation while ensuring compliance.
- **Future Perspectives**: The evolving role of fintech regulations in global markets.

5. Practical Applications and Case Studies in Fintech *(5+1)*

- **Analyzing Real-World Fintech Compliance Strategies**: Case studies on major fintech firms and their regulatory approaches.
- **Ethical & Compliance Challenges in Fintech**: Addressing ethical dilemmas in AI, data privacy, and digital lending.
- **Group Discussion**: Debating real-world fintech regulation scenarios and policy decisions.

Suggested Text Books:

1. The Journey of REGTECH by Vivek Dubey; Michael Terence Publishing
2. Fintech Law in a Nutshell (Nutshells) 1st Edition by Chris Brummer; West Academic Publishing
3. A Guide to Financial Regulation for Fintech Entrepreneurs 1st Edition by Stefan Loesch; Wiley
4. FinTech: Law and Regulation (Elgar Financial Law and Practice) by Jelena Madir
5. Routledge Handbook of Financial Technology and Law- Fintech and the limits of financial

regulation by SauleT Omarova; https://www.routledgehandbooks.com/doi/10.4324/9780429325670-3

6. FinTech Regulation: Exploring New Challenges of the Capital Markets Union by Valerio Lemma, Springer;1st ed. 2020 edition

Suggested Reference Books:

1. Fintech: The New DNA of Financial Services by Pranay Gupta
2. FINTECH: Beginner Guide to Fintech Innovation, Regulation and Startup, by Scorpio Digital Press
3. Scott, B. (2017). Hard Coding Ethics into Fintech. Finance & The Common Good (http://www.ethicsinfinance.org/wp-content/uploads/2018/01/Brett-Scott-Hard-coding-ethics-into- fintech.pdf)

Semester III	**311**	SE 08 - Budgetary Control and Variance Analysis Using Spreadsheets
3 Credits	**LTP: 2:0:1**	Subject Elective Course – Fintech Management

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

CO#	**COGNITIVE ABILITIES**	**COURSE OUTCOMES**
CO 311.1	REMEMBERING	Remember the key concepts in Budgeting and Variance Analysis
CO 311.2	UNDERSTANDING	Understand the applications and use of MS Excel and Google Sheets.
CO 311.3	APPLYING	Develop, Apply, and actually use the core functionality of MS Excel in decision framework to solve managerial problems
CO 311.4	ANALYSING	Analyse different situations by identifying the problem areas
CO 311.5	EVALUATING	Formulate an idea and acceptable solutions to solve different problems in the area of financial management

1. Foundations of Budgeting and Budgetary Control *(8+1)*

- **Understanding Budgeting**: Definitions, types (operating, financial, capital, and flexible budgets), and their roles.
- **Budgeting Process**: Steps in budget preparation, approval, implementation, and review.
- **Budgetary Control & Performance Monitoring**: Importance of budgetary control in financial planning. Methods for monitoring performance against budgets. Key performance indicators (KPIs) for budget tracking.

2. Fundamentals of Variance Analysis *(7+1)*

- **Introduction to Variance Analysis**: Why variances matter in budget control.
- **Types of Variances**: Material, labor, overhead, and sales variances. Fixed vs. variable cost variances.

3. Spreadsheet Tools for Budgeting and Data Visualization *(8+2)*

- **Using Spreadsheets for Budgeting**: Data entry, structuring financial data, and automation.
- **Advanced Functions for Budget Tracking**: **IF, VLOOKUP, SUMIF, INDEX-MATCH** for financial analysis.
- **Conditional Formatting & Pivot Tables** for trend identification.
- **Charts & Dashboards** for visualizing budget performance.

4. Advanced Analysis and Variance Reporting *(7+2)*

- **Scenario & What-If Analysis**: Predicting budget outcomes using different scenarios.Sensitivity analysis for decision-making.
- **Variance Reporting & Insights Development**: Formatting and presenting variance reports. Identifying financial trends and areas for improvement.

5. Practical Applications and Case Studies *(8+1)*

- **Industry Case Studies**:Reviewing real-world examples of budgetary control in organizations. Success and failure stories in budget management.
- **Hands-on Project**: Developing a budget for a department or startup. Conducting variance analysis and presenting results.
- **Final Presentation**: Delivering a budget performance report with recommendations.

Suggested Text Books:

1. Management Accounting - Khan & Jain, Tata McGraw Hill
2. Cost Management – Kishor Ravi M., Taxmann
3. Business Data Analysis using Excel – David Whigham – Oxford University Press
4. Building Financial Models with Microsoft Excel - K. Scot Proctor, Wiley Finance
5. https://www.benlcollins.com/spreadsheets/how-to-use-google-sheets/
6. https://edu.gcfglobal.org/en/googlespreadsheets/

Suggested Reference Books:

1. Accounting for Management, S. N. Maheshwari
2. Building Financial Models with Microsoft Excel: A Guide for Business Professionals, K. Scott Proctor, 2ndEdition, John Wiley & Sons
3. Advanced Modeling in Finance using Excel and VBA By Mary Jackson, Mike Staunton, John Wiley & Sons 4)Next Generation Excel: Modeling in Excel for Analysts and MBAs By Isaac Gottlieb, John Wiley & Sons.

Semester IV	401	GC 15 – Entrepreneurship, Innovation and Design Thinking
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
CO 401.1	REMEMBERING	DESCRIBE the fundamentals of entrepreneurship, innovation and design thinking.
CO 401.2	UNDERSTANDING	UNDERSTAND the prerequisites of entrepreneurship and innovation.
CO 401.3	APPLYING	APPLY the Design Thinking process to real-world challenges.
CO 401.4	ANALYSING	IDENTIFY business opportunities and create viable business models.
CO 401.5	EVALUATING	EVALUATE entrepreneurial ideas and innovation strategies using design thinking principles and business model frameworks to determine their feasibility, viability, and desirability in real-world contexts.
CO 401.6	CREATING	Develop entrepreneurial mindsets and skills and Pitch ideas effectively to stakeholders or investors.

1 **Entrepreneurship & Innovation –** Definition, Objective and Features: Entrepreneurship; Difference between Entrepreneurship and Traditional Businesses; Entrepreneurs and Intrapreneurs; Corporate Entrepreneurship, Technological Entrepreneurship, Life Cycle of Startu p, Focus on Valley of Death, Why Startups Fail?
Innovation: Culture of innovation - process and Types of innovation – Continuous and Disruptive, Radical Innovation, Challenges in innovation, Agile/Lean Innovation, Steps of Innovation Management, Idea Management System, Divergent V/s Convergent Thinking, Design Thinking and Entrepreneurship Creating Value through Innovation. Management of Innovation, Types of IPR (7 + 2)

2. **Entrepreneurial Theories and Entrepreneurial Environment, Entrepreneurial Development-** Theories of Entrepreneurship; Successful Entrepreneurs and Their Traits; Types of Entrepreneurs; Entrepreneurial Environment- PESTEL and Their Effects; Business Environment Analysis, Business Planning; Mid-career Dilemmas; Entrepreneurial Growth and Competitive Advantage; Changing Role of Entrepreneurs. Women Entrepreneurs, Entrepreneurship Development Institute; Entrepreneurship Development Programs (7 + 2)

3. **Design Thinking –** Introduction, Definitions and Meaning; Design Thinking –as an Art and Science; Stages of Design Thinking –Empathise, Define, Ideate, Prototype and Test; Entrepreneurship Design Thinking, Need of Design and Design Thinking Writing the Problem Statement; Understanding Stakeholders and Users; Personas, Empathy Maps; Current Scenarios to identify pain points; Ideation and Storyboarding; Deriving Goals from Ideas; Future Scenarios and Moments of Max Impact; Prototyping (7 + 2)

4. **Design Thinking in Start-Up –** 5 stages integration Empathise–Listening to People involved and the End User Problems Realisation, Understanding User Needs: User Research Techniques, Observation, Interviewing, Surveys, Persona Mapping; Define– Identifying User Problems, Problem Statement Formulation, Reframing Problems; Ideate – Generating Ideas, Brainstorming Techniques, Mind Mapping, Scenarios - Finding the solutions most effectively; Prototype – Making the samples to Launch, Different Types of Prototypes, Testing and Iterating; Test – Evaluating offerings, Usability Testing, User Feedback. Design thinking with AI (7 + 2)

5. **Opportunity Recognition & Business Models-** Model of opportunity recognition (Corbett, 2005), Identifying opportunities through Design Thinking, Market research basics, Value Proposition Canvas, Business Model Canvas (BMC), Minimum Viable Product (MVP): Lean Startup & Validation- Lean Startup methodology (Eric Ries), Build-Measure-Learn cycle, Customer validation, Metrics and KPIs, Agile iteration. Teamwork and Collaboration. Business Model Failure: Reasons and Remedies. Sustainability Innovation and Entrepreneurship. Emerging technologies such as artificial intelligence, augmented reality, virtual reality . (7 + 2)

Suggested Books:

1. 8 Steps to Innovation: Going from Jugaad to Excellence – Rishikesha T. Krishnan and Vinay Dabholkar
2. Innovation and Entrepreneurship - Peter Drucker
3. Entrepreneurship: Business and Management – Dr. R.C. Bhatia, Sultan Chand & Sons, 2020
4. Entrepreneurship - Robert D. Hisrich, Michael P. Peters, Dean A. Shepherd, Sabyasachi Sinha. 11th Edition
5. The Lean Startup – Eric Ries
6. Creative Confidence – Tom Kelley & David Kelley

Suggested Reference Books:

1. Ten Types of Innovation – Larry Keeley, Helen Walters, Ryan Pikkel & Brian Quinn
2. Design Thinking for Strategic Innovation – Idris Mootee
3. Start with Why – Simon Sinek
4. Business Model Generation – Alexander Osterwalder & Yves Pigneur
5. The Startup Owner's Manual – Steve Blank & Bob Dorf
6. Design a Better Business – Patrick Van Der Pijl, Justin Lokitz & Lisa Kay Solomon

Semester IV	402	GC 16 – Enterprise Performance Management
3 Credits	LTP: 2:1:1	Compulsory Generic Core Course

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	403	SC 02 - Financial Markets and Banking Operations
3 Credits	LTP: 2:1:1	Subject Core Course – Fintech Management

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 403.1	REMEMBERING	Recall the structure and components of Indian financial system throughbanking operations & Financial Markets.
CO 403.2	UNDERSTANDING	Understand the concepts of financial markets, their working and importance.
CO 403.3	APPLYING	Illustrate the working and contribution of Banks and NBFCs to theIndian Economy.
CO 403.4	ANALYSING	Analyze the linkages in the Financial Markets.
CO 403.5	EVALUATING	Explain the various banking and accounting transactions.
CO 403.6	CREATING	Develop necessary competencies expected of a finance professional.

1: Overview of the Indian Financial System: Basic Concepts of Indian Financial System: Structure and Components, Indian financial system in India, Role of financial system in economic development, Introduction to Financial Institutions, Banking and Non-Banking Institutions, Role and Functions of Banks and their Contribution to the Indian Economy, Introduction to Financial Markets, Functions and Classification, Money Market, Capital Markets, Bond Markets, Commodity Markets, Derivatives Markets, Futures Markets, Foreign Exchange Markets, Crypto Currency Market. **(5+2)**

2: Financial Market Infrastructures (FMI): Clearing Houses, Depositories, and Settlement Systems, Overview and functions, Risk Management in FMI, Importance and strategies, Regulatory and Compliance Requirements for FMI **(6+2)**

3: Money Market in India: Structure and Components of Money Market, Participants in the Indian Money Market, Money Market Instruments, Role of the Central Bank in the Money Market, Central bank functions and impact, Players in the Indian Money Market, Key participants and their roles, Reforms in the Indian Money Market**. (6+2)**

4: Capital Market Fundamentals: Components & Functions of Capital Markets, Overview of market operations. Primary & Secondary Market Operations, Distinctions and functions, Capital Market Instruments, Preference Shares, Equity Shares, Non-Voting Shares, Convertible Cumulative Debentures (CCD), Fixed Deposits, Debentures and Bonds, Global Depository Receipts, American Depository Receipts, Global Debt Instruments, Role of SEBI in Capital Market. **(9+2)**

5: Banking Operations and Management: Types of Banks & NBFCs, Central Bank, Nationalized & Co-Operative Banks, Regional Rural Banks, Scheduled Banks, Private Banks, Foreign Banks, Mudra Bank, Small Finance Banks, Specialized Banks, Types of Banking Wholesale and Retail Banking, Investment Banking, Corporate Banking, Private Banking, Development Banking, Banking Operations and Management, Structure and types of banks: commercial banks, investment banks, central banks, Bank functions: deposits, loans, payments, wealth management, digital banking, and transformation trends, Concepts in Banking and Accounting of Transactions, Accounting in banks, Electronic Banking, RTGS, ATM, MICR, OCR, OMR, and DATANET, Petty Cash, Electronic Clearing Service (ECS), National Electronic Funds Transfer (NEFT) System, Real Time Gross Settlement (RTGS) System, IMPS **(9+2)**

Suggested Text Books:

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

Semester IV	**404**	**Research Project**
6 Credits	**LTP: 0:2:10**	**Subject Core Course – Specialization Specific**

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

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
CO 404.1	REMEMBERING	Carry out a substantial research-based project
CO 404.2	UNDERSTANDING	Demonstrate capacity to improve student achievement, engagement and retention
CO 404.3	UNDERSTANDING	An understanding of the ethical issues associated with practitioner research
CO 404.4	APPLYING	Applying domain knowledge and foundational research skills to address a research problem.
CO 404.5	ANALYSING	Analyse data and synthesize research findings.
CO 404.6	CREATING	Report research findings in written and verbal forms and use research findings to advance education theory and practice.

A] *Preamble:*

A research project is a systematic and organized endeavour undertaken to investigate a specific topic, question, or problem in order to gain new insights, knowledge, or understanding. The objective of the research project is to further develop the student's ability to carry out and contribute to business research. The student should demonstrate, through his/her thesis and orally, an ability to plan, conduct, and present a scientific investigation of relevance to the subject of Business Administration and the student's chosen Master's program. A further aim is to develop skills for the critical examination of investigations and research reports and to provide the student with the opportunity for a deeper level of theoretical study within a chosen area. These projects involve a structured process of inquiry, data collection, analysis, and interpretation to arrive at meaningful conclusions.

Learning Objectives

1. Understand the purpose and significance of research in business management.
2. Develop skills in research methodology, data analysis, and interpretation.
3. Learn to conduct a thorough literature review and critically evaluate existing research.
4. Learn to formulate a clear research question and develop a compelling research proposal.
5. Master the art of writing a well-structured and coherent dissertation.
6. Gain confidence in presenting research findings to an academic audience.

B - 1] Conducting research projects can offer benefit and advantages to the students:

1. **Intellectual Growth:** Engaging in research projects allows students to explore and develop their intellectual curiosity. It encourages critical thinking, problem-solving skills, and the ability to analyse complex issues.
2. **Skill Development:** Research projects help students develop a variety of skills such as information gathering, data analysis, literature review, writing, presentation, and time management. These skills are valuable both academically and in future careers. 3.

3. **Deepened Understanding:** Research enables students to delve deeply into a specific topic, gaining a more comprehensive understanding of it beyond what's covered in regular coursework.
4. **Independent Learning:** Research projects encourage self-directed learning. Students learn how to set their own goals, manage their time, and work independently, fostering a sense of responsibility and initiative.
5. **Problem Solving:** Through research, students confront real-world problems and work towards finding innovative solutions. This experience prepares them to tackle challenges in various aspects of their lives.
6. **Personal Growth:** Research projects can boost students' confidence as they overcome obstacles, contribute to knowledge, and present their findings to peers and professors. This can positively impact their self-esteem and personal growth.
7. **Networking:** Engaging in research projects often involves collaboration with professors, peers, and sometimes professionals in the field. This can lead to valuable networking opportunities and connections that might be beneficial for future academic or career pursuits.
8. **Enhanced Resume/CV:** Having research experience on a resume can make students stand out to potential employers or graduate programs. It demonstrates their commitment to learning and their ability to handle complex tasks.
9. **Contribution to Knowledge:** Even in the early stages of their academic careers, students can contribute to the existing body of knowledge. Their research findings might lead to new insights or perspectives in their chosen field.
10. Preparation for undertaking Research: For students considering post graduate, engaging in research during their postgraduate years can provide a taste of the kind of work they might encounter at the next academic level PhD.
11. **Career Exploration**: Research projects can help students explore potential career paths within their field of study. They might discover specific areas they are particularly passionate about.
12. **Personal Interest Pursuit**: Research projects often allow students to delve into topics that deeply interest them, providing a fulfilling and enjoyable learning experience.
13. **Exposure to Research Methods:** Students gain exposure to various research methodologies, which can be beneficial not only in academia but also in fields where data analysis and evidence-based decision-making are crucial.
14. **Critical Evaluation:** Research requires students to evaluate existing literature, sources, and information critically. This skill helps them become more discerning consumers of information. **Long-Term Impact:** Some research projects can have lasting impacts beyond the academic realm, contributing to policy changes, technological advancements, or improvements in various industries.

B-2] About Research Project

In Semester IV the student shall work under the supervision of the faculty and carry out a Research Project and submit a structured report in **TWO hard bound copies (Blackbook) & one soft copy (PDF).** In the interest of environmental considerations, students are encouraged to print their Research Project reports on both faces of the paper. The student is required to conduct advanced research on a topic related to one (or more) of contemporary issues in management. The topic is chosen in consultation with the student's supervisor. The student will prepare and present a detailed research proposal prior to starting the work.

It is mandatory for the student to seek advanced written approval for Research Report Proposal from the faculty Supervisor and the Director of the Institute about the topic before commencing the Research Project work. A Research Project outlining the entire problem, including a survey of literature and the various results obtained along with their solutions, is expected to be produced. The student must submit the completed Research Project and make an oral presentation of the same. Through the Research Project, the student is expected to furnish evidence of competence in understanding varied aspects of the theme/topic selected and a deep understanding of the specialty area. The completion of the Research Project / project shall be certified by the Faculty Superv isor, HOD & approved by the Director of the Institute.

1) All sheets are to be A4 size.
2) The Text in all the chapters shall be in Times New Roman 12 Font, Regular, justified with line spacing of 1.15.
3) The margins shall be as follows: Top & Bottom: 0.8 inches; Left: 1 inch, Right: 0.5 inches
4) One extra line spacing should be left in between paragraphs.
5) All Chapter headings are to be centred in the Font Times New Roman 14 size Bold.
6) All headings of section shall be in Times New Roman 12 Bold
7) All sub-section headings shall be in Times New Roman , size, 12, Bold, Italic.
8) All minor sub-section headings shall be in Times New Roman , size, 12, Regular.
9) It is advised that the sections and sub- sections are to be limited to 3rd level
    a. Zero Level - Chapter Headings
    b. First Level - Main sections in each chapter : to be numbered as 1.1, 1.2, 2.1, 3.1 etc.

c. Second level - Sub- sections in each section : to be numbered as 1.1.1, 1.2.2, 2.1.3, 3.2.1 etc.

d. Third level - Minor sub-sections ie., sections in sub-sections. : to be numbered as 1.1.1.1, 1.2.2.1, 2.1.3.2, 3.2.1.4 etc. - to be avoided to the extent possible.

10) All the references / Bibliography are to be listed at the end, arranged in the chronological order and are to be numbered 1, 2, 3..............................etc.

11) The reference No. should be given as superscript in the report where ever they appear.

12) All the figures are to be numbered as Fig. 1.1, Fig. 2.3 etc indicating the chapter No and the sl. No. of the figure in that chapter. The title of the figure should at the bottom of the figure and should be numbered as shown below. Fig. 1.1 Study Area Fig. 2.1 Definition Sketch Fig. 3.2 Experimental Setup etc…

13) All the figures are to be preferably placed at the end of each chapter. Alternatively, they can be placed after the page where they are first referred. Uniformity should be maintained and under no circumstances these two alternatives indicated should be mixed.

Research projects may include:

- Developing a research question or statement
- Finding and evaluating sources
- Conducting research
- Writing a report etc

Students can do-

- Survey based research.
- Secondary data analysis such as decision analysis, cost effectiveness analysis or Meta-analysis.
- Observation based/Interview based research.

Each student must work under the supervision of a faculty mentor. Depending on the area of research interest or the research topic,

B-3] Research Project Process

I. SELECTION OF THE RESEARCH TOPIC:

The first major challenge in conducting research

1. The easiest way is working with a faculty mentor who is active in research and may have defined one or more researchable questions.
2. Consulting with leading faculty in your area of interest and asking for advice on researchable topics is another avenue for research ideas.
3. Developing research ideas from loose ends discovered during:
   a) desk research/FP/SIP/OJT, b) literature review c) reviewing journal article(s), and d) discussions, critique of research articles in journal club, could be an interesting, and a rewarding experience.

II. *DEVELOPING THE RESEARCH PROPOSAL*

A research proposal helps to develop research idea into a valid, scientific research project. A general outline of the elements of a Research Proposal is presented. Although the Research Project Outline provides a description of all the elements of a research project, students are required to complete the writing up of the Methodology section before beginning the project implementation. Writing of the research proposal has a twofold purpose:

1. it provides the researcher, with the blueprint for implementing the project, and
2. it has to be submitted to the research supervisor, HOD and Director of the Institute) for securing approval.

III. *PROJECT IMPLMENTATION*

In order to conduct a valid, scientific study, it is important that student rigorously follow the study design outlined in your research proposal and approved by the research supervisor. To ensure timely completion of the project, it is important to stay within the framework discussed in the Timeline.

IV. *WRITE-UP OF PROJECT RESULTS AND DISCUSSION*

This should follow directly from your research proposal. The research project outline provides a ‘how to’ write-up of the results and discussion sections.

V. *RESEARCH PRESENTATION*

Once the research project is complete, student have to make a public oral presentation to present the work.

B-4] OUTLINE OF A RESEARCH PROJECT

I. TITLE PAGE (Page 1, DO NOT NUMBER)

- Study Title
- Names of the Supervisor (faculty mentor)
- Discipline
- Name of the Institute
- Date: month and year proposal prepared/submitted

II. *SUMMARY (Page2, 1-2 pages; DO NOT NUMBER)*

The summary should be brief and include: 1) a few sentences introducing the topic of current study (could include a couple of references); 2) statement of the problem; 3) a brief description of the methodology to be used including duration of study, subject selection criteria, tests to be performed, and/or data to be collected; 4) significance and implications of the study (why is it important to do the study, and what are the benefits: fill in gap in knowledge; develop further understanding of a clinical situation; modify current approach to treatment; cost-benefit analysis etc., etc.).

III. INTRODUCTION (Page 3; up to 2 – 3 pages)

This section consists of an overview of the research question and some indication of the study's worth and the contribution it is apt to make to the field of study. It should include the rationale for the research project.

IV. REVIEW OF THE LITERATURE (Page 4; up to 4 –6 pages; a minimum of 10 references required).

Use references to establish the link between the proposed study and previous work done o n the topic, lay the groundwork for the proposed study, and demonstrate why it is important and timely. The literature review is not just a compilation of facts, but a coherent argument that leads to the description of the proposed study.

V. PROBLEM STATEMENT & RESEARCH HYPOTHESES (up to 1/2-1 page)

The problem statement describes the problem posed by the proposed study and specifies it in the form of Research Hypotheses. The research hypotheses should flow logically from the discussion presented in the Review of Literature and the Statement of the Problem. The hypotheses should be very specific in presenting what aspects of the research topic will be studied, and how. The hypotheses (If any) should be optimally clear, concise, meaningful, and typically written in the present tense. One recommended statement of the criteria for a good hypothesis is that is: a) be free of ambiguity, b) express the relationship between two variables or concepts, and c) imply an empirical test. AVOID having more than one hypothesis embedded in a single, complex statement. A conceptual model represents a visual depiction of the relationship between all the variables in your study. It is a good place to start when planning your research project, and also helps in developing your hypotheses.

VI. RESEARCH METHODOLOGY (up to 2-3 pages)

1. <u>Study Duration:</u> Describe the time frame during for which data will be collected (retrospective study; chart reviews), or intervention administered (prospective study; etc). If any

2. <u>Subject Selection: Of</u> particular importance in this section are:

a) the sampling procedure to be used – random, stratified, convenience, b) the source of the subjects, c) the criteria for selection – clearly state inclusion/exclusion d) the rationale for determining sample size – use power test to determine sample size for significance; realistic estimates of crossovers, dropouts must be used in calculating sample size

3. <u>Instrumentation or Measures: This</u> section <u>lists all the variables (intervention as well as outcome variables)</u> you would be examining in your study, and describes what particular measures, or forms, or data collection sheets you will be using to measure the variables.

4. <u>Procedures: This</u> section provides a detailed description of the exact steps to be taken to conduct your research. This includes the procedure used to contact subjects, obtaining Informed Consent, and collecting the data.

5. <u>Data Analysis:</u> In this section describe the statistical tests that will be used to address the research hypotheses.

Although intimidating, this section forces you to think how you will analyze (or have it analyzed) at the time the proposal is generated rather than after the data are collected. This way, you can avoid wasting time collecting data that are not analysable because they are not in the collected in the correct format.

6. Study Limitations: Describe the shortcomings and weakness of your study most likely to impact the internal validity of your study.

VII. *RESULTS*

In this section, you present your findings as clearly as possible. The Results section contains JUST THE FACTS: tables, figures, transcript summaries, and your description of what is noteworthy and important about these. Begin with a description of the sample. Simple demographics can be presented in tabular form. Follow with presenting your findings in terms of the research questions/hypotheses tested.

VIII. *DISCUSSION*

This section typically contains:

- An overview of significant findings
- A consideration of the finding in light of previous research
- A careful examination of findings that fail to support your hypotheses
- Limitations of the study that may affect the generalizability of the results
- Recommendations for further research
- Implications of study for professional practice

IX. *REFERENCES*

Students must cite all studies referred to in the proposal, using the APA citation method

B-5] Evaluation Pattern:

Total Marks: 140

Formative Assessment: 80 Marks

Summative Assessment: 60 Marks

1] *Formative Assessment Weightage 80 marks*

1. Project Proposal
2. Three Progress Reports
3. Final Research Project Report
4. Pre- submission Presentation
   a) Research Project Objectives, Research Question and Hypotheses
   b) Introduction and literature Review
   c) Methodology
   d) Quality of Analysis and Research, discussion and findings
   e) Documentation and Reporting
   f) References
   g) Reflection

2] *Summative Assessment Weightage 60 marks*

1. There shall be a panel of 2 examiners for the Final Viva-Voce
2. University shall nominate External Examiners
3. Director shall nominate Internal Examiners
4. Presentation by each student along with a spiral bound report is mandatory
5. Students will deliver a presentation of 15 minutes about their OJT project.
6. Weightages for summative assessment shall be as follows
   a) Presentation – 10 marks
   b) Viva-Voce – 20 marks
   c) Report – 20 marks
   d) Ability to connect with the theoretical & conceptual frame work – 10 marks

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

1. Adequacy of work undertaken by the student
2. Application of concepts learned in Sem I, II and III

3. Analytical capabilities
4. Technical Writing & Documentation Skills
5. Outcome of the project – sense of purpose
6. Utility of the project to the organization
7. Variety and relevance of learning experience

Presentation could be through any of the enlisted formats (this is an indicative list and innovative formats if any beyond this list may be adopted) -

1. Traditional Slide Deck Presentation
2. Infographics
3. Video presentation
4. Paper presentation
5. Poster presentation
6. Webinar or online presentation
7. TED-style presentation
8. Storytelling Presentation etc.

Semester IV	**405**	**SE 09 – Current Trends in Fintech**
3 Credits	**LTP: 2:1:1**	**Subject Elective Course - Fintech Management**

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

CO#	Cognitive Abilities	Course Outcome Description
CO 405.1	REMEMBERING	Identify key digital assets, blockchain technologies, and major global trends in cryptocurrencies and CBDCs.
CO 405.2	UNDERSTANDING	Explain the applications of AI, ML, and Open APIs in financial services and their impact on customer experience and financial innovation.
CO 405.3	APPLYING	Demonstrate the use of FinTech tools such as cryptocurrency wallets, payment APIs, and ML algorithms in real-world simulations and financial applications.
CO 405.4	ANALYSING	Analyse DeFi protocols, blockchain innovations, and open banking systems for their role in disrupting traditional financial systems.
CO 405.5	EVALUATING	Evaluate the regulatory, ethical, and cybersecurity challenges facing FinTech firms and propose strategies for risk mitigation and compliance.
CO 405.6	CREATING	Design innovative FinTech solutions incorporating blockchain, AI/ML, and APIs to solve real-world financial problems in a secure and compliant manner.

1. Digital Assets and Blockchain Fundamentals: Understanding digital assets: Cryptocurrencies, stablecoins, and NFTs, Blockchain technology: How it underpins digital assets and enables decentralized systems, Real-world use cases: Cryptocurrency adoption, tokenization of assets, and decentralized finance (DeFi). **Central Bank Digital Currencies (CBDCs):** Global perspective: Key trends in CBDC developments (China's Digital Yuan, European Union's Digital Euro), The role of CBDCs in monetary policy, financial inclusion, and digital economies. (6+2)

2. Artificial Intelligence (AI) & Machine Learning (ML) in Financial Services Key Applications: Credit scoring using AI algorithms (e.g., machine learning in risk assessment), Fraud detection and prevention: Using AI to monitor transactions and detect anomalies, Robo-advisors: Automating wealth management and investment strategies using AI. **Predictive Analytics for Financial Forecasting:** Forecasting financial trends with ML: Understanding historical patterns and predicting future market movements. (6+2)

3. Open Banking Revolution: Introduction to Open Banking: Empowering consumers with control over their financial data, exploring regulatory frameworks: PSD2, Open Banking regulations in Europe, and their global impact, How Open APIs are enabling innovation in payments, lending, and insurance. **Fintech APIs: Key Integrations for New Financial Products:** Building blocks of API-driven services: Payment gateways (Stripe, PayPal), and investment platforms (Plaid), Collaborative ecosystems: How Fintech and banks are working together to create new financial products. (8+2)

4. DeFi: Transforming Financial Services: Key concepts: Decentralized exchanges (DEX), liquidity pools, lending protocols, and smart contracts, Major DeFi platforms: Ethereum, Uniswap, Aave, and Compound, Advantages and challenges: Security, scalability, and regulation in DeFi. **Blockchain Applications Beyond Cryptocurrencies:** Real-world use cases: Supply chain management, identity verification, and insurance, Blockchain's role in revolutionizing traditional banking and the unbanked population. (7+2)

5: Fintech Regulation: Ensuring Compliance in a Rapidly Evolving Industry: Regulatory landscape for Fintech: Anti-money laundering (AML), Know Your Customer (KYC), and PSD2 regulations, The role of RegTech: How technology is helping with compliance automation in Fintech.
Cybersecurity in the Age of Digital Finance: Key cybersecurity threats facing Fintech companies: Data breaches, phishing, and hacking, best practices for securing financial transactions and protecting customer data in a digital-first world. (8+2)

Suggested Textbooks:

1. FinTech: The Technology Driving Disruption in the Financial Services Industry – Parag Y. Arjunwadkar – *Wiley India*
2. Fintech: Understanding Financial Technology – Pranay Gupta, T. Mandy Tham – *World Scientific Publishing India*
3. The FINTECH Book – Susanne Chishti & Janos Barberis – *Wiley India*
4. Bank 4.0: Banking Everywhere, Never at a Bank – Brett King – *Wiley India*
5. The Future of Finance: The Impact of FinTech, AI, and Crypto on Financial Services – Henri Arslanian – *Palgrave Macmillan (India Available)*
6. FinTech Revolution: Universal Inclusion in the New Financial Ecosystem – Sofie Blakstad & Robert Allen – *Palgrave Macmillan*
7. Digital Bank – Chris Skinner – *Marshall Cavendish International Asia (Available in India via Amazon)*

Suggested Reference Books:

1. The AI Book: The Artificial Intelligence Handbook for Investors, Entrepreneurs and FinTech Visionaries – Ivana Bartoletti, Anne Leslie, Shân M. Millie – *Wiley India*
2. Blockchain Basics: A Non-Technical Introduction in 25 Steps – Daniel Drescher – *Apress (Springer Nature, Available in India)*
3. Cryptoassets: The Innovative Investor's Guide to Bitcoin and Beyond – Chris Burniske & Jack Tatar – *McGraw Hill India*
4. Machine Learning for Asset Managers – Marcos López de Prado – *Cambridge University Press (India Availability)*
5. The RegTech Book – Janos Barberis, Douglas Arner, Ross Buckley – *Wiley India*
6. Augmented: Life in the Smart Lane – Brett King – *Marshall Cavendish (Available in India)*
7. FinTech, Artificial Intelligence and the Law – Alison Lui – *Routledge India*
8. Open Banking – Chris Skinner – *Marshall Cavendish (Available in India via Amazon)*

Semester IV	**406**	**SE 10 – Basic R Programming in Fintech Management**
3 Credits	**LTP: 2:1:1**	**Subject Elective Course - Fintech Management**

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

CO#	Cognitive Abilities	Course Outcome Description
CO 406.1	REMEMBERING	Recall the foundational concepts of R programming, data structures, and libraries used in financial data analysis.
CO 406.2	UNDERSTANDING	Explain data handling, preprocessing techniques, and visualization methods for analysing stock and cryptocurrency markets in R.
CO 406.3	APPLYING	Use R programming tools to clean, visualize, and explore financial datasets and time series data for investment decision-making.

CO 406.4	ANALYSING	Analyse portfolio risk, optimize asset allocation, and evaluate algorithmic trading strategies using statistical and machine learning models in R.
CO 406.5	EVALUATING	Assess predictive models, risk indicators, and automated reports to support financial planning, fraud detection, and regulatory compliance.
CO 406.6	CREATING	Build end-to-end FinTech solutions such as automated trading systems, crypto dashboards, and smart contract analytics using R and real-time financial data.

1. Introduction to R Programming for FinTech: Getting Started with R: Introduction to R & RStudio, Basic syntax, data types, and data structures (vectors, lists, data frames), Importing financial data from Excel, CSV, APIs, and databases. **Financial Data Handling & Preprocessing:** Web scraping stock market & cryptocurrency data, Cleaning and transforming financial datasets using dplyr and tidy verse, working with time series data using xts and zoo. (7+2)

2.Visualizing Financial Data: Plotting stock price trends, moving averages, and volatility, Advanced visualization with ggplot2, plotly, and dygraphs, Building interactive financial dashboards. E**xploratory Data Analysis (EDA) for Financial Insights:** Summary statistics & correlation analysis for asset returns, Identifying outliers & anomalies in financial datasets, Trend analysis and pattern recognition in stock market data. (7+2)

3. Financial Risk Modelling: Value at Risk (VaR) and Conditional VaR (CVaR) calculations, Monte Carlo simulation for financial risk assessment, Credit risk modelling using logistic regression. **Portfolio Optimization & Asset Allocation:** Modern Portfolio Theory (MPT) & Efficient Frontier in R, Risk-return tradeoff and Sharpe Ratio calculation, Back testing investment strategies with quantmod and Performance Analytics. (7+2)

4. Basics of Algorithmic Trading: Building automated trading strategies using quantmod, Technical indicators: Moving Averages, RSI, MACD, Bollinger Bands, Back testing trading strategies with historical data. **Machine Learning for Financial Prediction:** Predicting stock prices using Linear Regression & Random Forest, Sentiment analysis of financial news & tweets using tm and tidytext, Fraud detection with anomaly detection models. (7+2)

5. Automating Financial Reports with R: Generating automated investment reports in PDF & HTML, Real-time market data tracking using APIs (Yahoo Finance, Quandl), Automating compliance reporting for FinTech startups. **Blockchain & Cryptocurrency Data Analytics:** Analysing Bitcoin and Ethereum price trends using crypto2R, Building a cryptocurrency portfolio tracker, Smart contract auditing & fraud detection using R. (7+2)

Suggested Textbooks:

1. Hands-On Programming with R – Garrett Grolemund – *O'Reilly Media*
2. R for Data Science – Hadley Wickham & Garrett Grolemund – *O'Reilly Media*
3. The Art of R Programming – Norman Matloff – *No Starch Press / SPD Distributors (India)*
4. Statistics for Business and Economics Using R – Christian Heumann, Michael Schomaker, Shalabh – *Springer India*
5. Data Science for Business with R – Jeffrey S. Saltz & Jeffrey M. Stanton – *Wiley India*
6. R Programming for Data Analytics – Roger D. Peng – *Leanpub (Available in India via Amazon)*
7. Financial Risk Modelling and Portfolio Optimization with R – Bernhard Pfaff – *Wiley India*

Suggested Reference Books:

1. Applied Econometrics with R – Christian Kleiber & Achim Zeileis – Springer India
2. Quantitative Financial Analytics: The Path to Investment Profits – Kenneth L. Grant – Wiley India
3. Introduction to Data Science – Rafael A. Irizarry – CRC Press (Taylor & Francis India)

4. Advanced R – Hadley Wickham – Chapman & Hall/CRC (Taylor & Francis India)
5. Machine Learning with R – Brett Lantz – Packt Publishing India
6. R Cookbook – Paul Teetor – O'Reilly Media
7. Data Mining and Business Analytics with R – Johannes Ledolter – Wiley India
8. Time Series Analysis and Its Applications: With R Examples – Robert H. Shumway & David S. Stoffer – Springer India

Semester IV	**407**	**SE 11 – Digital Payment Systems**
3 Credits	**LTP: 2:1:1**	**Subject Elective Course - Fintech Management**

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

CO#	Cognitive Abilities	Course Outcome Description
CO 407.1	REMEMBERING	Define key concepts, terminologies, and types of digital payment systems and understand their historical evolution.
CO 407.2	UNDERSTANDING	Describe the infrastructure, technologies, and stakeholders involved in digital and electronic fund transfer systems.
CO 407.3	APPLYING	Demonstrate the use of various digital payment platforms, mobile wallets, and EFT systems through practical exercises and simulated transactions.
CO 407.4	ANALYSING	Analyse the security frameworks, compliance requirements, and comparative efficiency of different payment systems and technologies.
CO 407.5	EVALUATING	Evaluate the impact of blockchain and cryptocurrency on traditional payment ecosystems, including use cases in cross-border payments and financial inclusion.
CO 407.6	CREATING	Design and prototype secure and efficient payment system components such as mobile wallets or blockchain-based applications with fraud prevention features.

1: Introduction to Digital Payment Systems: Definition, importance, and evolution of digital payments, Types of digital payment systems: E-wallets, online banking, UPI, cards, and cryptocurrencies, Key stakeholders: Consumers, merchants, financial institutions, payment processors, and regulators. **Digital Payment Infrastructure:** Payment gateways and processors: Role of intermediaries in transaction processing, Security & compliance frameworks: PCI-DSS, KYC/AML regulations, & GDPR. (6+2)

2. Electronic Fund Transfer Systems (EFT): National Payments Corporation of India (NPCI) Systems: UPI, IMPS, and RuPay. Real-time gross settlement (RTGS) and National Electronic Funds Transfer (NEFT), Cross-border payments: SWIFT and Ripple. **Payment Methods and Technologies:** Mobile payment systems: NFC, QR codes, and proximity payments, Contactless payments: Technology, adoption, and security implications. (6+2)

3. Mobile Wallets: Types and Features: E-wallets (Paytm, Google Pay, Apple Pay) vs. crypto wallets (Bitcoin wallet, Ethereum wallet), Benefits, adoption barriers, and security of mobile wallets. **Peer-to-Peer (P2P) Payment Systems:** Platforms: Venmo, Cash App, Zelle, and PayPal, Integration of P2P payments in everyday transactions, Blockchain-based P2P payments: Decentralized payment systems and their future. (7+2)

4. Cryptocurrency Overview: Introduction to Bitcoin, Ethereum, and other altcoins, Blockchain technology's role in facilitating secure and transparent payments, Cryptocurrency wallets, exchanges, and mining. **Blockchain-based Payment Systems:** Introduction to decentralized payment systems: Bitcoin, Litecoin, Ripple, and stablecoins (USDT), Central Bank Digital Currencies (CBDCs) and their impact on digital payment ecosystems. (9+2)

5. Security Challenges in Digital Payments: Threats to digital payment systems: Phishing, hacking, and fraud, Secure payment technologies: Tokenization, multi-factor authentication (MFA), and biometrics. **Regulation and Fraud Prevention:** Legal and regulatory frameworks: GDPR, PSD2, and anti-money laundering (AML), Fraud detection technologies: Machine learning, AI, and blockchain for fraud prevention. **Future Trends in Digital Payments:** Digital identity and biometric payments, Integration of AI, machine learning, and the Internet of Things (IoT) in future payments, Contactless payments, wearables, and the future of smart payments. (7+2)

Suggested Textbooks:

1. Digital Payment Systems: Principles and Practices – R. K. Mittal & Ruchi Nayyar – *Taxmann Publications*
2. Electronic Payment Systems: A User-Centered Perspective and Interaction Design – Donald Hedeker – *CRC Press / Taylor & Francis India*
3. Cashless: India's Digital Revolution – R. Gandhi – *Rupa Publications India*
4. Banking Technology: Financial Services to Digital Payments – Debasish S. Sathya Swaroop – *Oxford University Press India*
5. Digital Banking: A Strategic Perspective – Vittorio D'Amato & Andrea Bonaccorsi – *Springer India*
6. The PAYTECH Book – Susanne Chishti & Tony Craddock – *Wiley India*
7. FinTech and Digital Banking – Abhijit Bandyopadhyay – *Taxmann Publications*

Suggested Reference Books:

1. Digital Payments in India: Theory and Practice – R.K. Uppal – *New Century Publications*
2. FinTech and RegTech in a Nutshell – Lara G. Hoffmann – *Amazon KDP (Available in India)*
3. Modern Banking Technology – Firdos Temurasp – *Himalaya Publishing House*
4. Understanding Digital Payments – Rahul Chari & Harshil Mathur – *Amazon KDP / Self-published*
5. The FinTech Book – Susanne Chishti & Janos Barberis – *Wiley India*
6. Digital Finance: Security and Payment Systems – Akash Bhatia – *BPB Publications*
7. Financial Services Information Systems – Jessica Keyes – *Auerbach Publications (CRC Press India)*

Semester IV	408	SE 12 – Blockchain & Its Applications
3 Credits	**LTP: 2:1:1**	**Subject Elective Course - Fintech Management**

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

CO#	Cognitive Abilities	Course Outcome Description
CO 408.1	REMEMBERING	Explain the fundamental components, structure, and types of blockchain and distinguish them from traditional databases.
CO 408.2	UNDERSTANDING	Describe the functioning of smart contracts, decentralized applications (DApps), and their architecture within the blockchain ecosystem.
CO 408.3	APPLYING	Demonstrate the deployment of smart contracts, creation of tokens, and interaction with blockchain platforms such as Ethereum and Hyperledger.
CO 408.4	ANALYSING	Analyse the use of blockchain in financial applications such as DeFi, tokenization, enterprise solutions, and CBDCs.
CO 408.5	EVALUATING	Evaluate the security, privacy, and regulatory challenges in implementing blockchain-based solutions in FinTech.
CO 408.6	CREATING	Design and prototype a real-world FinTech blockchain application or DApp, and present a startup idea addressing financial inclusion or efficiency.

1. Introduction to Blockchain: Evolution & need for blockchain in financial services, Structure & components: Blocks, chains, hashing, consensus mechanisms, Types of blockchain: Public, Private, Consortium & Hybrid. **Blockchain vs. Traditional Databases:** Distributed ledger technology (DLT) & its advantages, Transparency, immutability, and cryptographic security. (6+2)

2. Smart Contracts: How They Work: What are smart contracts? Their role in automation, Writing & deploying Ethereum smart contracts using Solidity, Use cases: Digital agreements, lending, and escrow systems. **Building Decentralized Applications (DApps):** Architecture of a DApp, Web3.js & Metamask integration, Hands-on demo: Creating a basic DApp for financial transactions. (6+2)

3. Decentralized Finance (DeFi): Introduction to DeFi: Lending, staking, yield farming, DeFi platforms: Aave, Compound, Uniswap, Curve Finance, Risks & regulatory challenges in DeFi.

Tokenization & NFTs in Financial Markets: Creating Security Tokens, Utility Tokens & Stablecoins, How NFTs (Non-Fungible Tokens) work in financial assets, Cross-border payments using Central Bank Digital Currencies (CBDCs). (7+2)

4. Enterprise Adoption of Blockchain: Private blockchain platforms: Hyperledger, Quorum, Corda. Supply chain finance, banking settlements, KYC verification. **Security Risks & Challenges in Blockchain:** Smart contract vulnerabilities (reentrancy attack, flash loan attack), Consensus attacks: 51% attack, Sybil attack, front-running in DeFi, Privacy solutions: Zero-Knowledge Proofs (ZKP), zk-SNARKs. (9+2)

5. Emerging Trends in Blockchain: AI + Blockchain in FinTech, Green blockchain & energy-efficient consensus mechanisms, Metaverse & Web 3.0 innovations. **Regulatory & Ethical Considerations:** Global regulations on cryptocurrencies & ICOs, Data privacy and GDPR compliance in blockchain, Ethical concerns in DeFi and tokenization. (7+2)

Suggested Textbooks:

1. Blockchain Technology: A Guide to the Future of Finance – Don Tapscott & Alex Tapscott – *Penguin Random House India*
2. Mastering Blockchain: Unlocking the Power of Cryptocurrencies, Smart Contracts, and Decentralized Applications – Imran Bashir – *Packt Publishing*

3. Blockchain Revolution: How the Technology Behind Bitcoin and Other Cryptocurrencies is Changing the World – Don Tapscott & Alex Tapscott – *Penguin*
4. Blockchain Applications: A Hands-On Approach – Arshdeep Bahga & Vijay Madisetti – *Vikas Publishing House*
5. Blockchain Basics: A Non-Technical Introduction in 25 Steps – Daniel Drescher – *Apress*
6. Blockchain for Dummies – Tiana Laurence – *Wiley India*
7. Blockchain and Cryptocurrencies: What You Need to Know – Amit Dey – *BPB Publications*

Suggested Reference Books:

1. Blockchain: Blueprint for a New Economy – Melanie Swan – *O'Reilly Media*
2. Blockchain: The Complete Guide to Understanding the Blockchain, Bitcoin, and Cryptocurrency – I. T. Technical Publications – *Independently Published*
3. Blockchain for Business: How Blockchain Can Transform Your Business – Melanie Swan – *O'Reilly India*
4. Blockchain and the Law: The Rule of Code – Primavera De Filippi & Aaron Wright – *Harvard University Press*
5. Blockchain and Cryptocurrency: A Guide for Business Leaders – Mark van Rijmenam – *Springer*
6. Blockchain for Developers: Build decentralized applications with smart contracts – Nader Dabit – *Packt Publishing*
7. Blockchain Applications: A Hands-On Approach – Arshdeep Bahga & Vijay Madisetti – *Vikas Publishing House*
8. Blockchain Technology: Principles and Applications – Jyoti Prakash – *S. Chand Publishing*

Semester IV	**409**	**SE 13 - Algorithmic Trading**
3 Credits	**LTP: 2:1:1**	**Subject Elective Course - Fintech Management**

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

CO#	**Cognitive Abilities**	**Course Outcome Description**
CO 409.1	REMEMBERING	Describe the fundamentals of algorithmic trading, market microstructure, and order types in electronic financial markets.
CO 409.2	UNDERSTANDING	Explain the mechanics of various algorithmic trading strategies and the importance of back-testing and performance metrics.
CO 409.3	APPLYING	Apply trading strategies using back-testing frameworks and automate strategy execution through APIs and trading bots.
CO 409.4	ANALYSING	Analyse trading strategy performance using historical data and machine learning models, and interpret market microstructure dynamics.
CO 409.5	EVALUATING	Evaluate the impact of AI and ML in financial markets, including risk, returns, and predictive accuracy in live environments.
CO 409.6	CREATING	Design, implement, and present an end-to-end automated algorithmic trading strategy, considering regulatory compliance and ethical implications.

1. Introduction to Algo Trading: Basics of algorithmic trading and market efficiency, History and evolution of algo trading in financial markets, High-Frequency Trading (HFT) vs. Low-Frequency Trading (LFT). **Market Microstructure & Order Types:** Understanding order books, bid-ask spread, liquidity, and slippage, Market orders, limit orders, stop-loss, and iceberg orders, Role of market makers and arbitrage opportunities. (7+2)

2. Types of Algorithmic Trading Strategies: Trend-following strategies (Moving Averages, MACD, Bollinger Bands), Mean-reversion strategies (Statistical Arbitrage, Pairs Trading), Market-making and arbitrage strategies, Machine learning-based predictive models. **Backtesting Trading Strategies:** Importance of backtesting and forward-testing, Performance metrics: Sharpe Ratio, Sortino Ratio, Max Drawdown, Introduction to Backtrader, Zipline, and QuantConnect for strategy testing. (7+2)

3. Algorithm Implementation in Live Markets: Connecting to broker APIs (Interactive Brokers, Zerodha Kite, Alpaca), Automating order execution & monitoring trades in real-time, Risk management techniques: Stop-loss, position sizing, and portfolio hedging. **Trading Bots & Execution Algorithms:** Market impact and slippage reduction techniques, TWAP (Time-Weighted Average Price) & VWAP (Volume-Weighted Average Price), AI-driven execution using Reinforcement Learning. (7+2)

4. Applying Machine Learning to Trading: Feature engineering for financial time series, predicting stock price movements using ML algorithms (XGBoost, LSTMs), Sentiment analysis of news & social media for trading signals. **Quantitative Finance & AI in Trading:** Reinforcement learning for optimal trading decisions, Deep learning-based pattern recognition (Neural Networks, CNNs), Risk-adjusted strategy optimization using AI. (7+2)

5. Regulatory Framework for Algo Trading: SEBI, SEC, and global regulations on automated trading, Market abuse, spoofing, and wash trading – Compliance challenges, Ethical concerns & transparency in algorithmic trading. **Future Trends in Algo Trading:** Quantum computing for trading models, Decentralized finance (DeFi) and smart contract-based trading, AI-powered hedge funds and robo-advisory systems. (7+2)

Suggested Textbooks:

1. Algorithmic Trading: Winning Strategies and Their Rationale – Ernie Chan – *Wiley India*
2. Algorithmic Trading: The Play-at-Home Version – Kevin Davey – *CreateSpace Independent Publishing Platform*
3. Algorithmic Trading: A Practitioner's Guide – Jeffrey Bacidore – *Wiley India*
4. Quantitative Trading: How to Build Your Own Algorithmic Trading Business – Ernie Chan – *Wiley India*
5. Introduction to Algorithmic Trading: Basics, Systems, and Trading Strategies – Nuno R. C. T. S. S. Santos – *Springer*

Suggested Reference Books:

1. The Art of Algorithmic Trading – Jeffrey B. Jeffries – *Springer*
2. Advances in Financial Machine Learning – Marcos López de Prado – *Wiley*
3. Machine Learning for Algorithmic Trading – Stefan Jansen – *Packt Publishing*
4. Algorithmic and High-Frequency Trading – Albert J. Menkveld – *Springer*
5. The Handbook of Algorithmic Trading: A Practical Guide for Traders, Fund Managers, and Analysts – Rajib Ranjan Borah – *Springer*
6. Python for Finance: Mastering Data-Driven Finance – Yves Hilpisch – *O'Reilly Media*

Semester IV	410	SE 14 - Budgetary Control and Variance Analysis Using Spreadsheets
3 Credits	LTP: 2:1:1	Subject Elective Course - Fintech Management

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

CO#	Cognitive Abilities	Course Outcome Description
CO 410.1	REMEMBERING	Define and differentiate between flexible budgeting and static budgeting techniques, and explain the role of activity-based budgeting (ABB).
CO 410.2	UNDERSTANDING	Explain advanced variance analysis methods, including material, labour, and overhead variances, and interpret break-even points and contribution margins in budgeting.
CO 410.3	APPLYING	Apply flexible budgeting and ABB techniques to real-world financial data to create and adjust budgets based on changing activity levels and cost drivers.
CO 410.4	ANALYSING	Analyse variances and assess budget performance by calculating and interpreting volume and price variances, and conduct break-even analysis for business decisions.
CO 410.5	EVALUATING	Evaluate and interpret real-time budget performance using advanced reporting tools (Excel, Power BI, Tableau) and develop corrective actions for budget variances.
CO 410.6	CREATING	Design and present a collaborative master budget and interactive dashboards to communicate financial data for strategic decision-making and performance evaluation.

1. Flexible Budgeting: What is a flexible budget? Adjusting for changes in activity levels, Differences between static and flexible budgets, Use of dynamic data in budget creation and adjustments. **Activity-Based Budgeting (ABB):** Introduction to Activity-Based Budgeting (ABB) and its use in cost management, identifying cost drivers and assigning costs using ABB. (7+2)

2. Advanced Variance Analysis: Detailed analysis of material, labour, and overhead variances, Volume vs. price variances: How to calculate and interpret. **Break-Even Analysis and Contribution Margin:** How to calculate break-even points and contribution margin in the context of budgeting, Using these metrics to assess budget performance and make strategic decisions. (7+2)

3. Collaborative Budgeting: Using Google Sheets for collaborative budgeting across departments, Real-time updates and version control for collaborative budgeting in organizations. **Master Budget Consolidation:** Consolidating departmental budgets into a master budget, Integration of financial data from various sources into a single budget model. (7+2)

4. Advanced Reporting Tools in Excel: Power Pivot and Power Query for advanced reporting, Use of dashboards for real-time financial data visualization. **Interactive Reporting with Power BI and Tableau:** Introduction to Power BI and Tableau for dynamic financial reporting and budgeting analysis, creating visual dashboards to present financial data in an interactive format. (7+2)

5. Performance Evaluation: Using budget data to assess business performance, Key Performance Indicators (KPIs) for budget analysis and decision-making. **Corrective Actions and Strategic Planning:** Developing corrective strategies based on variance analysis, Decision-making based on actual performance vs. budget forecasts. (7+2)

Suggested Textbooks:

1. Management Accounting: Principles and Applications – M. Y. Khan, P. K. Jain – *McGraw Hill Education*
2. Cost Accounting: A Managerial Emphasis – Charles T. Horngren, Srikant M. Datar, Madhav V. Rajan – *Pearson India*
3. Budgeting and Financial Management for Nonprofit Organizations – Joshua B. D. H. Green – *Wiley*
4. Budgetary Control: A Guide to Practice and Analysis – S. N. Maheshwari – *Sultan Chand & Sons*
5. Financial Management and Analysis – Prasanna Chandra – *McGraw Hill Education*
6. Advanced Management Accounting – Robert S. Kaplan, Anthony A. Atkinson – *Pearson India*
7. Financial Analysis with Microsoft Excel – Timothy R. Mayes, Todd M. Shank – *Cengage Learning*

Suggested Reference Books:

1. Cost and Management Accounting – M. N. Arora – *Vikas Publishing House*
2. Principles of Management Accounting – William H. Chason, Charles T. Horngren – *Prentice Hall*
3. Financial Management: Theory & Practice – Eugene F. Brigham, Joel F. Houston – *Cengage Learning*
4. Management Accounting for Decision Making – Paul M. Collier – *Cengage Learning*
5. Cost Accounting: A Managerial Emphasis – S. N. Maheshwari – *S. Chand & Sons*
6. Budgeting: Profit Planning and Control – J. W. Toft, P. D. Williams – *Prentice Hall*

Semester IV	**411**	**SE 15 - Data Security for Fintech**
3 Credits	**LTP: 2:1:1**	**Subject Elective Course - Fintech Management**

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

CO#	Cognitive Abilities	Course Outcome Description
CO 411.1	REMEMBERING	Define key concepts in cybersecurity, data security, and common cyber threats in the FinTech industry.
CO 411.2	UNDERSTANDING	Explain the role of cryptography, encryption techniques, and secure transactions in ensuring data privacy and integrity in financial transactions.
CO 411.3	APPLYING	Apply basic cybersecurity practices to identify and mitigate risks and vulnerabilities in digital financial systems, including penetration testing and vulnerability scanning.
CO 411.4	ANALYSING	Analyse cyber-attack case studies (e.g., SWIFT Network attack) and evaluate the effectiveness of AI-driven security and fraud detection in FinTech platforms.
CO 411.5	EVALUATING	Evaluate global data protection laws, regulatory frameworks, and ethical hacking practices for ensuring compliance and security in FinTech organizations.
CO 411.6	CREATING	Design secure digital payment systems using advanced encryption methods, AI-based fraud detection, and adhere to regulatory compliance guidelines in FinTech security.

1. Understanding Cybersecurity in FinTech: Importance of data security in financial institutions, Types of cyber threats: Phishing, ransomware, DDoS attacks, insider threats, Recent cyber-attacks in FinTech and lessons learned. **Threat Landscape & Risk Identification:** Identifying vulnerabilities in digital payment systems, Introduction to SOC (Security Operations Center) in FinTech, Role of AI and machine learning in fraud detection. (7+2)

2. Introduction to Cryptography in Finance: Symmetric vs. Asymmetric encryption (AES, RSA), Role of Public Key Infrastructure (PKI) in securing transactions, Blockchain-based encryption in digital payments.**Securing Transactions & Payment Gateways:** End-to-end encryption in UPI, RTGS, NEFT, SWIFT transactions, Digital signatures & multi-factor authentication in banking apps, Tokenization & HSM (Hardware Security Modules) in card transactions. (7+2)

3. Financial Fraud & Cybercrime Prevention: Types of fraud: Identity theft, card skimming, account takeovers, AI-based fraud detection models in FinTech, Behaviour analytics & anomaly detection for fraud prevention. **Anti-Money Laundering (AML) & KYC Compliance:** Role of AI in real-time AML monitoring, Biometric authentication & facial recognition in KYC, Case studies on FinTech companies fined for AML violations. (7+2)

4. Global & Indian Data Protection Laws: GDPR, CCPA, India's DPDP Act and their impact on FinTech, RBI & SEBI cybersecurity guidelines for financial institutions, PCI-DSS standards for card payment security. **Ethical Hacking & Penetration Testing in FinTech:** Role of ethical hackers in financial security, OWASP Top 10 vulnerabilities in banking apps, Red Team vs. Blue Team security testing in financial organizations. (7+2)

5. Emerging Technologies in Financial Security: AI-powered cybersecurity solutions, Zero Trust Architecture (ZTA) for FinTech organizations, The role of quantum cryptography in securing banking systems. **Cybersecurity in Decentralized Finance (DeFi) & Web3:** Smart contract security vulnerabilities, Threats in DeFi lending & decentralized exchanges (DEX), The rise of self-sovereign identities & biometric security. (7+2)

Suggested Textbooks:

1. Cybersecurity and Cyberwar: What Everyone Needs to Know – P.W. Singer, Allan Friedman – *Oxford University Press*
2. Security Engineering: A Guide to Building Dependable Distributed Systems – Ross J. Anderson – *Wiley India*
3. Principles of Information Security – Michael E. Whitman, Herbert J. Mattord – *Cengage Learning*
4. Data Privacy and GDPR Handbook – Sanjay Sharma – *Wiley India*
5. Introduction to Cyber Security: A Hands-on Approach – Dr. S. K. Khanduja – *Cengage Learning*
6. The Basics of Cyber Security – Jason R. Smith – *Pearson India*
7. Applied Cryptography: Protocols, Algorithms, and Source Code in C – Bruce Schneier – *Wiley India*

Suggested Reference Books:

1. Cryptography and Network Security: Principles and Practice – William Stallings – *Pearson India*
2. Information Security: Principles and Practice – Mark Stamp – *Wiley India*
3. Data Security and Privacy: A Guide for Practitioners – Lee N. S. – *Wiley India*
4. Cyber Security and Privacy – Dr. Sanjay Goel – *CRC Press*
5. Network Security Essentials: Applications and Standards – William Stallings – *Pearson India*
6. Security in Computing – Charles P. Pfleeger, Shari Lawrence Pfleeger – *Pearson Education*
7. Handbook of Information Security, Threats, Vulnerabilities, Prevention, Detection, and Management – Hossein Bidgoli – *Wiley India.*

Semester IV	412	SE 16 – Financial Analytics
3 Credits	**LTP: 2:1:1**	**Subject Elective Course - Fintech Management**

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

CO#	Cognitive Abilities	Course Outcome Description
CO 412.1	REMEMBERING	Identify and define key financial concepts, including financial statements, ratios, and risk assessment techniques in the context of financial analytics.
CO 412.2	UNDERSTANDING	Explain the role of financial analytics in decision-making and differentiate between traditional financial analysis and data-driven financial analysis.
CO 412.3	APPLYING	Apply data cleaning, preprocessing techniques, and financial data visualization tools to analyse and interpret financial data for decision-making.
CO 412.4	ANALYSING	Analyse financial data using predictive models and time series forecasting techniques to assess a company's performance and predict future outcomes.
CO 412.5	EVALUATING	Evaluate various risk management strategies, including portfolio optimization, value-at-risk (VaR), and scenario analysis, to assess their impact on financial portfolios.
CO 412.6	CREATING	Design advanced financial analytics models using machine learning, AI tools, and big data techniques to develop predictive models for stock market trends, fraud detection, or financial forecasting.

1. Overview of Financial Analytics: Importance and role of financial analytics in decision-making, Key concepts: Financial statements, cash flow analysis, profitability ratios, and risk assessment, Traditional financial analysis vs. data-driven financial analysis. **Financial Data Sources and Collection:** Types of financial data: Historical data, market data, and alternative data, Introduction to financial data sources: Bloomberg, Reuters, Yahoo Finance, financial statements, etc, Data cleaning and preprocessing techniques: Handling missing data, outliers, and normalization. (7+2)

2. The Role of Data Visualization in Financial Decision-Making: Importance of data visualization in interpreting financial data, Introduction to key financial charts: Trend lines, bar charts, pie charts, and scatter plots, best practices for presenting financial data: Clarity, accuracy, and storytelling with data.

Advanced Visualization Tools: Using Power BI and Tableau for creating financial dashboards, designing interactive dashboards for financial performance monitoring, Real-time financial data visualization: How to visualize live stock market data, FX rates, and cryptocurrency prices. (7+2)

3. Introduction to Predictive Analytics: Predictive models: Regression, classification, and time series forecasting, Overview of machine learning models used in finance: Linear regression, decision trees, and neural networks. **Financial Time Series Analysis:** Time series data in finance: Stock prices, interest rates, and economic indicators, Introduction to ARIMA (Auto-Regressive Integrated Moving Average) for time series forecasting, Analysing trends and patterns in stock price movements and economic cycles. (7+2)

4. Introduction to Financial Risk Analytics: Types of financial risks: Market risk, credit risk, operational risk, and liquidity risk, Measuring risk: Value at Risk (VaR), stress testing, and scenario analysis, Portfolio theory: Modern Portfolio Theory (MPT), Capital Asset Pricing Model (CAPM), and Sharpe ratio. **Risk Analytics in Practice:** Using financial models for portfolio optimization: Minimizing risk for given returns, Diversification strategies and their impact on risk management, Analysing the risk-return trade-off in investment portfolios. (7+2)

5. Big Data Analytics in Finance: The role of big data in financial analysis: Big data sources, tools, and techniques, Introduction to financial analytics tools: Python (pandas, NumPy), R, and SQL for financial data manipulation and analysis. **Artificial Intelligence and Machine Learning in Finance:** AI and ML applications in financial markets: Predictive analytics, fraud detection, algorithmic trading, Natural Language Processing (NLP) for sentiment analysis: Analysing news, financial reports, and social media for investment insights. (7+2)

Suggested Textbooks:

1. Financial Analytics with R: Building a Laptop Lab for Data Science – Mark J. Bennett, Dirk L. Hugen – *Wiley India*
2. Financial Modeling – Simon Benninga – *MIT Press*
3. Statistics and Data Analysis for Financial Engineering – David Ruppert – *Springer*
4. Financial Analysis with Microsoft Excel – Timothy R. Mayes, Todd M. Shank – *Cengage Learning*
5. Financial Analytics and Data Science – Chris Neill – *Wiley India*
6. Practical Financial Modelling: A Guide to Current Practice – Michael Rees – *Wiley India*

Suggested Reference Books:

1. Quantitative Financial Analytics: The Path to Investment Profits – Kenneth L. Grant – *Wiley India*
2. Financial Analytics: Modeling and Data Analysis for Financial Markets – Yong H. Kim – *Cambridge University Press*
3. Financial Analytics with Python – M. S. Sharma – *Wiley India*
4. Financial Analytics and Decision Making – Stephen S. Watt – *Wiley India*
5. Investment Science – David G. Luenberger – *Oxford University Press*
6. Advanced Financial Analytics – Dr. Reena Mehta – *Wiley India*