COEP Technological University (COEP TECH)

A Unitary Public University of Government of Maharashtra

w.e.f. 21st June 2022

(Formerly College of Engineering Pune)

DEPARTMENT OF MANAGEMENT STUDIES

School of Multidisciplinary Sciences, Humanities and Management Studies

Curriculum Structure & Detailed Syllabus (MBA-BA)

(Effective from: A.Y. 2024-26)

Master of Business Administration (MBA) - Curriculum 2024 Pattern
2-year, 4 Semester Full time Program

1. **Preamble**: The MBA (BA) Curriculum 2024 elaborates a Credit System (CS), Grading System and Outcomes Based Education (OBE) program.
2. **Credit:** For a 15-week semester, credits are assigned as follows:
    a. **Lectures (L):** One-hour session per week equates to 1 credit per semester.
    b. **Tutorials (T):** A minimum of two hours per week equates to 1 credit per semester.
    c. **Practice (P):** A minimum of two hours per week equates to 1 credit per semester.

    Each credit comprises three components—Lecture (L), Tutorials (T), and Practice (Practical/Project Work/Self-Study) (P)—following the LTP pattern. The indicative LTP structure for each course is outlined in the syllabus

    The course instructor, with approval from the Head of the Department, or designated academic authority, may adjust the LTP structure based on course requirements, the nature of the subject, learner proficiency, and the proposed pedagogy and assessment methods.

3. **Program Educational Objectives:**
    a. **PEO 1:** To produce individuals who will demonstrate strong leadership skills by possessing good ethical and humane values and capability of managing and working in a team with synergy in the business environment.
    b. **PEO 2:** To create Managers with critical and analytical thinking ability to demonstrate creativity and innovation in the process of decision making.
    c. **PEO 3:** To build leaders with powerful written and spoken communication skills to effectively influence stakeholders across different businesses.
    d. **PEO 4:** To create Managers who are aware of their Social Responsibility and have a sustainable attitude.
    e. **PEO 5:** To develop Professionals who will remain competent and consistent by upgrading skills and knowledge to catalyze change in a technology-driven business environment.
    f. **PEO 6:** To churn out entrepreneurs who have the ability to identify ideas and use entrepreneurial skills to build sustainable solutions.

4. **Program Outcomes:** At the end of the program, the graduates will be able to

    1. **PO 1:** Apply the knowledge and theories of management to real life business scenarios.
    2. **PO 2:** Find and analyze a business issue comprehensively.
    3. **PO 3:** Exhibit improved entrepreneurial skills to solve business and social problems by applying the principles of creativity & innovation.

4. **PO 4:** Develop cohesive work culture and lead the team towards accomplishment of organizational goals.
5. **PO 5:** Develop the ability to adapt and progress in the dynamic business environment by unlearning and re-learning the newest skills.
6. **PO 6:** Apply the advanced information systems and analytical tools and techniques along with different frameworks and theories related to management and decision making.
7. **PO 7:** Analyze & implement the environmental, global, social, political, technological, environmental, health, safety, sustainability, ethical and legal context of business.
8. **PO 8:** Design reporting documents and present and propagate information effectively.

Correlation between the PEOs and the POs

	PEO 1	PEO 2	PEO 3	PEO 4	PEO 5	PEO 6
PO1						
PO2		√				
PO3		√				√
PO4	√					
PO5					√	
PO6		√			√	
PO7				√		
PO8			√			

1. **<u>Course Types</u>:**
   a. **Program Core Course (PCC)** - Program Core Courses form the foundation of the MBA program, covering fundamental subjects essential for all students, irrespective of their specialization. These courses provide conceptual knowledge and skill development. They are mandatory and contribute to building a strong academic base.
   b. **Program Generic Course (PGC) -** Program Generic Courses are designed to offer broad-based knowledge applicable across multiple specializations. These courses focus on interdisciplinary learning, fostering managerial competencies, critical thinking, and problem-solving skills that enhance employability.
   c. **Program Specialization Course (PSC) -** Program Specialization Courses cater to students who wish to develop expertise in a specific domain within management. These courses provide in-depth knowledge and practical skills in specialized areas such as Finance, Marketing, Human Resource Management, Operations, or Entrepreneurship. PSCs

allow students to tailor their learning experience based on their career aspirations.

d. **Massive Open Online Courses (MOOCs) -** Massive Open Online Courses (MOOCs) are online learning programs offered by reputed institutions and platforms such as Coursera, edX, NPTEL, or SWAYAM. These courses provide flexibility and accessibility to students, allowing them to enhance their knowledge beyond the standard curriculum. MOOCs can be taken for credit or enrichment, enabling students to learn from global experts and stay updated with emerging trends in business and management.

Abbreviation	Title	Sem I	Sem II	Sem III	Sem IV	Total
		Credits				
PCC	Program Core Course	16	14	15	15	60
PGC	Program Generic Course	4	4			8
PSC	Program Specialization Course		8	8	8	24
MOOCs	Massive Open Online Courses					
	Total Credits	20	26	23	23	**92**

Abbreviation	Title	Sem I	Sem II	Sem III	Sem IV	Total
		Subjects				
PCC	Program Core Course	8	7	7	7	29
PGC	Program Generic Course	4	4			8
PSC	Program Specialization Course		4	4	4	12
MOOCs	Massive Open Online Courses					
	Total Credits	12	15	11	11	**49**

2. **<u>Specializations Offered</u>:** The following specializations shall be offered
   a. Financial Management (FIN)
   b. Marketing Management (MKT)
   c. Human Resources Management (HRM)
   d. Operations Management (OM)

   Note –

   i. Major and Minor specialization combinations are not permitted.
   ii. Specialization selection must be made at the beginning of Semester II.
   iii. Desk Research, Field Projects, On-the-Job Training, and Research Projects must align with the chosen specialization, as these are considered Core Subject Courses.
   iv. Institutes may offer only selected specializations based on industry requirements, faculty expertise, student demand, and

employability prospects.

v. A specialization will not be offered if fewer than 20% of students enroll in it.

3. <u>Assessment</u>:

a. **Formative Assessment (FA) / Comprehensive Concurrent Evaluation (CCE) – 20 Marks:** Formative Assessment (FA) is an ongoing evaluation process used to monitor student learning and provide continuous feedback. It helps both instructors and students identify strengths, weaknesses, and areas for improvement during the learning process, rather than at the end of a course.

i. Quizzes & Polls (quick knowledge checks)
ii. Case Study Discussions (evaluating application of concepts)
iii. Group Activities & Role Plays (peer learning & collaboration)
iv. Reflective Journals or Blogs (self-assessment of learning progress)
v. Classroom Presentations & Debates (verbal articulation of concepts)
vi. Interactive Simulations & Gamified Learning Modules

b. **Mid Semester Assessment – 30 Marks:** The Mid-Semester Examination (Mid-Sem Exam) is an interim assessment conducted halfway through the academic semester to evaluate students' understanding and progress in a course. It serves as a checkpoint to assess learning outcomes before the final semester-end examination.

i. **Summative in Nature:** It contributes to the overall course grading and evaluation.
ii. **Covers Half of the Syllabus:** Typically assesses concepts taught in the first half of the semester.
iii. **Structured & Time-Bound:** Conducted in a formal exam setting with specific time duration.
iv. **Performance Indicator:** Helps students and faculty gauge academic progress and preparedness for final exams.
v. **Feedback Mechanism:** Provides an opportunity for students to identify areas of improvement before the end-semester exam.

c. End Semester Examination – 50 Marks:

i. Summative in Nature: The End-Sem Exam is a high-stakes, final evaluation that contributes significantly to the final grade of a student in a course. It measures both conceptual clarity and practical application of subject knowledge.
ii. Comprehensive Coverage: Unlike Mid-Sem Exams, which typically assess half of the syllabus, the End-Sem Exam covers the entire syllabus taught over the semester, ensuring a holistic evaluation of student learning.
iii. Standardized and Time-Bound:The exam is conducted in a formal, invigilated setting according to the university/institute's academic regulations.
iv. Structured Question Paper Format: The End-Sem Exam usually includes a mix of question types to assess different levels of

understanding, including:

1. Objective Questions: Multiple-choice questions (MCQs), Fill-in-the-blanks, and True/False statements.
2. Short-Answer Questions: Definitions, key concepts, and explanations of theories.
3. Long-Answer/Analytical Questions: Application-based problems, case studies, essay-type responses, and scenario-based discussions.
4. Numerical/Problem-Solving Questions: If applicable (for finance, operations, and quantitative subjects).
5. Case Studies & Practical Applications: Industry-relevant case studies that test decision-making and critical thinking skills.

d. **Passing Standards -** The passing criteria for each course are determined based on a **relative grading system**, ensuring fairness and academic benchmarking across different student performances. The passing threshold is set at half of the median performance of the class for that particular course.

   i. Relative Benchmarking:
   1. The passing mark for each course is calculated as **Median Score / 2,** where the median is derived from the class performance distribution **subject to amin of 30 and max of 40 marks**.
   2. This ensures that passing standards adjust based on the overall difficulty of the exam and student performance trends.

   ii. Combined Passing:
   1. Students must meet the minimum passing marks combined for Formative Assessment, Mid-Sem, and the End-Semester Examination.
   2. Failing to score the passing marks will result in a repeat attempt of all the assessments.

e. Grading System

i. The Relative Grading System follows an Indirect and Absolute Grading approach, where students are initially assessed based on marks obtained in individual courses during examinations. These marks are then converted into grades using a predefined mechanism that takes into account the overall performance distribution of the class and the credit points assigned to each course.

ii. The final course evaluation is expressed in terms of grades, ensuring that a student's performance is measured in relation to their peers rather than through a fixed percentage cutoff. The system adheres to the 10-point standard grading scale as mandated by the University Grants Commission (UGC), providing a standardized and fair evaluation method that reflects both individual achievement and class-wide performance trends.

iii. The performance of a student will be evaluated in terms of two indices, viz.
   1. Semester Grade Point Average (SGPA) which is the Grade Point Average for a semester.
   2. Cumulative Grade Point Average (CGPA) which is the Grade Point Average for all the completed semesters at any point in time.

4. <u>Miscellaneous</u>:

a. **Degree Requirements:** The degree requirements for the MBA program are completion of minimum **94 credits**.
b. **Maximum Attempts per Course:** A student shall earn the credits for a given course in maximum **FOUR** attempts.
c. **Maximum Duration for completion of the Program:** The candidates shall complete the MBA Program within **4 years** from the date of admission.
d. **Attendance:** The student must meet the minimum requirement of **75% attendance** per semester per course for grant of the term.
e. **Medium of Instruction:** The medium of Instruction & Evaluation shall be **English**.

MBA in Business Analytics Specialization

SEMESTER I							
Program Core Courses-PCC							
Sr. No.	**Course Type**	**Course Code**	**Course Name**	**Teaching Scheme**			**Credits**
				L	T	P	
1	PCC-1		Marketing Management	3	2	0	2
2	PCC-2		Human Resource Management	3	2	0	2
3	PCC-3		Operations Management	3	2	0	2
4	PCC-4		Financial Management	3	2	0	2
5	PCC-5		Introduction to Business Analytics	3	2	0	2
6	PCC-6		Economics (Micro/Macro)	3	2	0	2
7	PCC-7		Financial Accounting	3	2	0	2
8	PCC-8		Statistics	3	2	0	2
Total Credits for PCC							**16**
Program Generic Courses							
Sr. No.	**Course Type**	**Course Code**	**Course Name**	**Teaching Scheme**			**Credits**
				L	T	P	
1	PGC-1		Doing Business in India	2	0	0	1
2	PGC-2		Effective Communication	2	0	0	1
3	PGC-3		Self Awareness and Personality Development	2	0	0	1

4	PGC-4		Introduction to Case studies in GM	2	0	0	1
			Total Credits for PGC				4
			Total Credits for Sem I				**20**

SEMESTER II

Program Core Courses-PCC

Sr. No.	Course Type	Course Code	Course Name	Teaching Scheme			Credits
				L	T	P	
1	PCC-1		Research Methodology	3	2	0	2
2	PCC-2		Business and Commercial Laws	3	2	0	2
3	PCC-3		Project Management	3	2	0	2
4	PCC-4		MIS	3	2	0	2
5	PCC-5		Applied Statistics for Business Decision Making	3	2	0	2
6	PCC-6		Introduction to R/ Python	3	2	0	2
6	PCC-7		Design & Strategic Thinking	3	2	0	2
			Total Credits for PCC				**14**

Program Generic Courses

Sr. No.	Course Type	Course Code	Course Name	Teaching Scheme			Credits
				L	T	P	1
1	PGC-1		Company and Sectorial Analysis	2	0	0	1
2	PGC-2		Current Business Environment	2	0	0	1
3	PGC-3		Presentation Skills	2	0	0	1
4	PGC-4		Case Studies	2	0	0	1
			Total Credits for PGC				**4**

Program Specialization Courses -Sem II

Sr. No.	Course Type	Course Code	Course Name	Teaching Scheme			Credits
				L	T	P	
1	PSC-1		Modern Data Management Systems	3	2	0	2
2	PSC-2		Data Mining	3	2	0	2
3	PSC-3		Quantitative Methods	3	2	0	2
4	PSC-4		Data Science and Machine Learning	3	2	0	2
			Total Credits for PSC				**8**
			Total Semester II Credits				**26**

Semester III							
Program Core Courses-PCC -SEM III							
Sr. No.	**Course Type**	**Course Code**	**Course Name**	**Teaching Scheme**			**Credits**
				L	T	P	
							2
1	PCC-1		Strategic Management	3	2	0	2
2	PCC-2		Introduction to Start up/MSME etc	3	2	0	2
3	PCC-3		Innovation Management	3	2	0	2
4	PCC-4		AI for Business Growth	3	2	0	2
5	PCC-5		Data Visualization with Python	3	2	0	2
6	PCC-6		BA for Industry 4.0	3	2	0	2
7	PCC-7		Internship Project	1	0	6	3
			Total Credits for PCC				**15**
Semester III-Specialization							
Program Spinalization Courses -Sem II							
Sr. No.	**Course Type**	**Course Code**	**Course Name**	**Teaching Scheme**			**Credits**
				L	T	P	
1	PSC-1		Data Engineering & Knowledge Management	3	2	0	2
2	PSC-2		Big Data Analytics	3	2	0	2
3	PSC-3		Digital Marketing & web Analysis	3	2	0	2
4	PSC-4		Predictive Analytics and ML Models	3	2	0	2
			Total Credits for PSC				**8**
			Total Credits for Sem III	**23**			

SEMESTER IV

Program Core Courses-PCC							
Sr. No.	**Course Type**	**Course Code**	**Course Name**	**Teaching Scheme**			**Credits**
				L	T	P	
1	PCC-1		Corporate Governance & Ethics	3	2	0	2
2	PCC-2		Data Security and Cyber Laws	3	2	0	2
3	PCC-3		Global Business Environment	3	2	0	2

4	PCC-4		Leadership and Strategic Thinking	3	2	0	2
5	PCC-5		Conflict and Negotiation	3	2	0	2
6	PCC-6		Business Simulations	3	2	0	2
7	PCC-7		Dissertation	1	0	6	3
			Total Credits for PCC				**15**

Semester IV							
Program Spinalization Courses -Sem IV							
Sr. No.	**Course Type**	**Course Code**	**Course Name**	**Teaching Scheme**			**Credits**
				L	T	P	
1	PSC-1		Time Series and Forecasting	3	2	0	2
2	PSC-2		AI & Applications	3	2	0	2
3	PSC-3		Cloud Technology & Security	3	2	0	2
4	PSC-4		Mathematical Optimizations for Business problems	3	2	0	2
Total Credits for PSC							8
Total Credits for Sem IV							**23**

Note :- MBA Business Analytics Total Credits For 2024-26 Batch -92 Credits

Semester I

Program Core Courses

PCC-1 MARKETINGMANAGEMENT	**Semester I**
Credits:2	LTP:3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO#	**COGNITIVE ABILITIES**	**Course Outcome** Student Will be able to
CO 1	REMEMBERING	To study the concept of Marketing and 4 Ps of marketing & its application in the real world.
CO 2	UNDERSTANDING	To demonstrate the relevance of marketing management concepts and frameworks and Assess the various marketing opportunities associated with emerging & developed markets, considering economic, political, and social-cultural factors.
CO 3	APPLYING	To assess the interrelationships existing between segmentation, targeting and positioning, marketing environment, consumer buying behavior, marketing mix and Product Life Cycle with real world examples.
CO 4	ANALYSING	To familiarize with the basic concepts, and techniques of marketing management such as Product Levels, Marketing Research, STP, Marketing Mix and their adaptation to the contemporary marketing practices and analyze their role in sustainable marketing practices and the overall impact on the environment, companies and consumers
CO 5	EVALUATING	To design a Marketing Mix and Marketing Plan for a real-world marketing offering (commodities, goods, services, e-products/ e-services

Unit **Hours**

Unit 1: Understanding Marketing Management 6

1.1 Marketing in the 21st Century

Evolution and Understanding the Core Concept

Objectives, Scope & Functions of Marketing

Core Evolving Concepts of Marketing – Customer Satisfaction,

Unit	Hours
Relationship, Delight, Customer Loyalty & Customer Centricity Concepts of Needs, Desires, Wants, Demand, Utility & Its Types Marketing vs. Market & Its Types **1.2 Marketing Management Philosophies** The Production, Product, Selling, Marketing, Societal, and Holistic Marketing Concept The Role of Creativity, Innovation & Use of Design Thinking to Solve Marketing Challenges **1.3 Segmentation, Target Marketing & Positioning (STM)** Segmentation - Concept, Need & Benefits Geographic, Demographic, Psychographic, Behavioural Bases of Segmentation for Consumer Goods and Services Bases and Levels of Segmentation, Criteria for Effective Segmentation Target Market - Concept & Criteria for Selection Positioning - Concept of Differentiation & Positioning, Value Proposition & Unique Selling Proposition Forrester's Social Technographics Segmentation	
Unit 2: Marketing Plan, Analysis & Consumer Behaviour	6
2.1 Analysis of Marketing Environment Concept, Components, and Characteristics of Marketing Environment Needs & Trends & Major Forces Impacting the Macro &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 **2.2 Concepts of Consumer Behaviour**	
Unit 3: Marketing Mix	8
Marketing Mix Origin & Concept of Marketing Mix and Extended Marketing Mix (7P's) Services Marketing: Product, Price, Place, Promotion, People, Process, Physical Evidence Integrated Marketing Communication **Product Life Cycle** Concept, Characteristics, Relevance, Types, and Strategies Across Product Life Cycle (PLC) **Digital Marketing Mix** Service-Dominant Logic, Connected Marketing Mix - Four C's (Co-creation, Currency, Communal Activation, and Conversation) Forrester's Social Technographics	
Unit 4: Digital Transformation in Marketing	8

Unit **Hours**

Digital Transformation in Marketing

Modern Marketing Concepts of Adoption of Digital Marketing, AI, Big Data, and Machine Learning

Transforming Marketing Strategies

Customer Experience (CX, UI & UX)

Sustainable Marketing

The Changing Role of the CMO in the Age of Customer Experience

Marketing Challenges into the Next Century

Socially Responsible Marketing and Marketing Ethics

Reference 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

Online Resources:

1. https://www.pbme.in/papers/77.pdf
2. https://gnindia.dronacharya.info/MBA/1stSem/Downloads/MarketingManagement/Books/Marketing-Management-text-book-1.pdf
3. Selling of High Technology Products https://ijebmr.com/uploads/pdf/archivepdf/2023/IJEBMR_1150.pdf
4. https://hbr.org/2018/05/marketing-in-the-age-of-alexa
5. https://hbr.org/2017/03/what-creativity-in-marketing-looks-like-today
6. https://www.skyword.com/contentstandard/how-design-thinking-can-help-marketers-find-creativesolutions-from-customer-insights/
7. https://gnindia.dronacharya.info/MBA/1stSem/Downloads/MarketingManagement/Books/Marketing-Management-text-book-1.pdf
8. https://www.togai.com/blog/generative-ai-pricing-strategies/
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

9. https://revenueml.com/insights/articles/potential-generative-artificial-intelligence-pricing
10. https://cmr.berkeley.edu/assets/documents/pdf/2021-09-what-is-customer-centricity-and-why-does-it-matter.pdf
11. https://online.hbs.edu/blog/post/what-is-design-thinking

12. https://vivaldigroup.com/wp-content/uploads/sites_2/2016/07/2014-The-Changing-Role-of-the-CMO.pdf
13. https://www.medallia.com/wp-content/uploads/pdf/resources/Medallia-Why-CX-for-the-CMO.pdf - The Changing Role of the CMO in the Age of Customer Experience
14. https://www.iraj.in/journal/journal_file/journal_pdf/14-314-1481954927194-196.pdf - Marketing Ethics
15. https://www.pearsoncanada.ca/media/highered-showcase/multi-product-showcase/kotler-ch04.pdf - Sustainible Marketing
17. https://www.linkedin.com/pulse/marketing-60-future-immersive-philip-kotler-qmqre/ Marketing 6.0 Podcast - Philip Kotler in Live Conversation on Technology's Impact of Marketing Class Discussion Tomorrow.
18. https://www.linkedin.com/pulse/marketing-60-future-immersive-philip-kotler-qmqre/

Web Resources:

1. AFAQS - https://www.afaqs.com/
2. Brand Equity (ET) - https://www.brandequity.com/

PCC-2 HUMAN RESOURCE MANAGEMENT	**Semester I**
Credits:2	LTP:3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO#	COGNITIVE ABILITIES	Course Outcome Student Will be able to
CO 1	REMEMBERING	Know the key terms, upcoming trends in the subject
CO 2	UNDERSTANDING	To understand of the basic concepts functions and processes of human resource management
CO 3	APPLYING	Application of the modelslearned, contemporary practices in real business world.
CO 4	ANALYSING	Analyzing & constructive strategies for existing and new challenges in HRM
CO 5	EVALUATING	Evaluate the processes & policies in HRM
CO 6	CREATING	Creating &implementing best practices in real business scenario

Unit **Hours**

Unit 1: Perspectives of HRM 6

Introduction & evolution of HRM
Modern HRM - nature, scope
The role, structure, policies, functions, challenges of HRM
Forces changing HRM
HRM in various sectors
HRM Models: Harvard Model
Case study: Hassles at 24x7
Summary

Unit 2: Strategic HRM 6

Factors influencing HR strategy
SHRM & functions of HRM
Strategic HRM models
Case study: Is it time to celebrate?
Summary

Unit 3: Human Resource Planning 6

Unit	Hours
Main drivers of HRP	
HRP process, factors affecting	
Forecasting methods	
HRP Planning models	
Global HRP	
Case study: A challenge	
Unit 4: Job Analysis and Job Design	6
Introduction	
Job Analysis	
Changing trends - Competency Modeling	
Job design, redesign	
Job satisfaction and evaluation	
Unit 5: Talent Acquisition	6
Recruitment - Introduction & sources	
Selection	
Recruitment and selection evaluation	
Establishment and Terms of service	
Resume building	
Use of AI in recruitment	
Unit 6: Performance Management	6
Performance Appraisal Methods	
Pros and cons of performance appraisal	
Designing Performance Management system	
Case study: Is the Performance Appraisal System Robust?	
Unit 7: Training and Development	6
Training Models	
Analysis of training needs	
Design	
Methods of training (contemporary practices), develop & implement	
Talent management - career and succession planning	
Unit 8: Employee Compensation and Benefits	6
Employee benefits - types of contracts	
Factors to consider for compensation planning	
Components of salary	
Incentives and benefits	
Trends in compensation & benefits	
Case study: Compensation and benefits	
Employee Separation - Types of employment separation	
Retirement Decisions, grievance procedure	

Textbooks

1. Human Resource Management, C.B.Mamoria , Himalaya Publishing House
2. Human Resource Management: Text and Cases, K Aswathappa , Tata McGraw Hill
Publishing Compnay.
3. Human Resource Management, Dr. S.S. Khanka, Sultan Chanda , Delhi
4. Human Resource Management, Deepak Bhattacharya, Sage Publishing Ltd.
5. Human Resource Management, Arun Monppa , Tata McGraw Hill Publishing Company

Reference Books:

1. Human Resource Management by Dessler &Varkkey (Twelfth Edition) Pearson
2. Human Resource Management by Decenzo and Robbins
3. Human Resource Planning by John Bramham

PCC-3: OPERATIONS MANAGEMENT	**Semester I**
Credits:2	LTP:3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO#	COGNITIVE ABILITIES	Course Outcome
CO 1	REMEMBERING	Know the key terms in Operations management
CO 2	UNDERSTANDING	To understand of the basic concepts functions and processes of operations management
CO 3	APPLYING	Application of the operations systems
CO 4	ANALYSING	Constructive strategies for new challenges in HRM
CO 5	EVALUATING	Evaluate the processes &policies in HRM
CO 6	CREATING	Creating constructive ways to implement best practices in real business scenario

Unit **Hours**

Unit 1: Fundamentals of Operations Management 8

Introduction to Business Process, Production & Distribution

Operations Management: System Concepts

Types of Operations: Manufacturing and Services

Linkages with other functions of management

Class Discussion & Case Studies on Operations from different industries: FMCG,

White Goods, Chemical & Pharma, IT & Consulting, Healthcare, Travel & Tourism.

Forecasting Practices: Importance and role in Operations

Qualitative Forecasting: Types & its applications

Quantitative Forecasting: Types, applications & Numerical Examples

Production Planning & Control

Planning, Routing, Loading, Dispatching

Production Targets and its Management

Unit 2: Resources Management 8

Material & Technology resources

Plant & Machinery

Value and Value Creation, Value Chain

Unit	Hours
Inventory Management: Basic Concepts, Types of Inventory Inventory Valuation & Depreciation Purchasing, Economic Order Quantity (EOQ) Model: Numerical Examples Inventory Control Techniques, Inventory Turnover Ratio, Stores Management Product Design, Process Management Different Types of Layouts: Product, Process, Cellular Scheduling Techniques: Johnson's Method, Critical Ratio, Numerical Examples	
Unit 3: Quality Management & Services Perspectives in Quality from producer's and customer's angles Concepts of Quality Gurus Deming's 14 Points in Quality Continuous & Disruptive Improvement Total Quality Management, Six Sigma **Class Discussion & Case Studies** on Quality Management in Indian Companies: ITC Ltd, Britannia, Taj Hotels, Infosys, Apollo Hospitals, etc. Services Management: Role of Human Resources, Front Office & Back Office Service Encounters, Experience & Expectation Management Queuing Theory Concepts: Numerical Examples Supply Chain Management: Inward & Outward Logistics Push-Pull Concept, Multi Modal Transportation (Road, Air & Sea) Warehousing, Cold Chain, Reverse Logistics SCOR Model	8
Unit 4: Strategic Operations & Project Management Introduction to Strategic Operations Benchmarking & World-class Operations Balanced Scorecard Investment Decision Making Technology Management International Operations: Offshoring & Outsourcing Lean Concept Fundamentals, Application in Indian Industries & its Challenges Production Environment, Safety, Training & Productivity Green Operations and Environmental Management	8

Textbooks:

1. Monks, J. G., Operations Management: Theory and Problems, McGraw Hill, New York (1987)

Reference Books:

1. Krajewski, L. J., Ritzman, L. P. and Malhotra, M. K., Operations Management, Prentice Hall, New Delhi (2009).
2. Ebert, J and Adams, D.J., Production/Operations Management, Prentice Hall of
3. India, New Delhi (2007)
4. Chase, R. B., Aquilano, N. J. and Jacob, F. R., Production and Operations
5. Management: manufacturing and services, Tata McGraw Hill, New Delhi (1999)

PCC4 : FINANCIAL MANAGEMENT	**Semester I**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO#	**COGNITIVE ABILITIES**	**Course Outcome (Student will be able to….)**
CO1	REMEMBERING	Describe the basic concepts related to financial management
CO2	UNDERSTANDING	Compare various sources of capital required for finance.
CO3	APPLYING	Apply concepts of financial management in profit and wealth maximization
CO4	ANALYSING	Analyze the sources of capital and workout the cost of capital
CO5	EVALUATING	Conclude the concepts of financial management in various decision making.
CO6	CREATING	Construct an optimum capital structure.

Unit	**Hours**
Unit 1: Introduction to Financial Functions	4
Scope of Financial Management	
Objectives of Financial Management	
Role of Finance Manager	
Decision Making – Through the Lens of Financial Management	
Financial Goal: Profit Maximization vs. Wealth Maximization	
Unit 2: Introduction to Financial Statements	8
Introduction to Financial Accounting and Reporting	
Purpose and Importance of Financial Statements	
Types of Financial Statements: Balance Sheet, Income Statement, and Cash Flow Statement	
	8
Preferred Stock and Common Stock, Long-Term Debt, Retained Earnings & Their Features	
Choice for Sources of Funds	
Capital Structure Planning	
Cost of Equity	

Unit	Hours
Cost of Debt	
Computation and Composite Cost of Capital	
Unit 4: Capital Budgeting	8
Concepts and Steps in Capital Budgeting	
Average Rate of Return, Payback Period	
Present Value Method, Internal Rate of Return	

Textbooks:

1. Prasanna Chandra, Financial Management: Theory and Practice, McGraw Hill Education.
2. M. Y. Khan, P. K. Jain, Financial Management: Text, Problems, and Cases, McGraw Hill Education.

Reference Books:

1. Eugene F. Brigham, Joel F. Houston, Essentials of Financial Management, Cengage Learning India

PCC5 : INTRODUCTION TO BUSINESS ANALYTICS	**Semester I**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO#	COGNITIVE ABILITIES	Course Outcome (Student will be able to….)
CO1	Remember	List the fundamental concepts and definitions of business analytics.
CO2	Understand	Explain the significance of business analytics in modern business decision-making.
CO3	Apply	Explore industry applications of business analytics in various domains.
CO4	Analyze	Examine the Process of Knowledge Discovery and Mining of Data
CO5	Evaluate	Determine ethical considerations and governance frameworks in business analytics.
CO6	Create	Compile challenges and opportunities associated with implementing business analytics in real-world scenarios.

Unit Hours

UNIT 1: Foundations of Business Analytics 7

- Definition and Scope of Business Analytics
- Evolution and Significance of Business Analytics
- Business Analytics Lifecycle
- Key Terminologies in Business Analytics

UNIT 2: Descriptive Analytics 7

- Data Types and Sources
- Data Exploration Techniques
- Data Visualization for Business Insights

UNIT 3: Data Modeling Techniques & Analytics 7

- Knowledge Discovery Process
- Data Mining Models & Techniques
- Data Analytics Techniques (Descriptive, Prescriptive & Predictive)
- Current and Emerging Trends

Unit	Hours
UNIT 4: Ethics & Governance in Business Analytics	7
Ethical Considerations in Data Analytics	
Data Governance Frameworks	
Compliance and Privacy Issues	
UNIT 5: Capstone Project [Industry Applications and Case Studies]	7
Application of Business Analytics to a Real-World Business Problem	
Project Planning and Execution	
Presentation and Documentation	
Peer Evaluation and Feedback	

Reference Books:

1. "Business Analytics: The Science of Data-Driven Decision Making" by Thomas H. Davenport
2. "Data Science for Business" by Foster Provost and Tom Fawcett
3. "Business Analytics: A Practitioner's Guide" by S. N. Balakrishnan

Textbooks:

1. "Business Analytics: A Data-Driven Decision Making Approach" by Albright, Winston, and Zappe
2. "Analytics in a Big Data World: The Essential Guide to Data Science and its Applications" by Bart Baesens
3. "Python for Data Analysis" by Wes McKinney

PCC6: ECONOMICS (MACROS/MICROS)	**Semester I**
Credits:2	LTP:3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO#	**COGNITIVE ABILITIES**	**Course Outcome (Student will be able to….)**
CO1	Remember	Understand and Define concepts of business economics
CO2	Understand	Explain the concepts of economics in business context.
CO3	Apply	Analyze the correlation between economic theory and business applications
CO4	Analyze	Apply business economics concepts in firm's decision-making process
CO5	Evaluate	Discuss the effect of business economics theory on the working of business economics
CO6	Create	Develop real business economic model to judge whether it fits into economic theory

Unit **Hours**

Unit 1: Introduction to Economics in Business 4

Process and its Significance

Definition, Nature, and Scope of Managerial Economics

Basic Concepts of Microeconomics and Macroeconomics

Managerial Economics and Decision-Making

Basic Concepts: Positive and Normative Approach, Optimization, Marginal Analysis, Opportunity Cost, Economic Model, Static and Dynamics

Concept of Value of Firm or Business

Unit 2: Demand Analysis 8

Theory of Consumer Behavior

Elasticity of Demand and its Applications

Demand Estimation and Forecasting

The Supply Analysis: Determinants of Supply, Elasticity of Supply

Theory of Firms and Different Objectives of the Firm

Firm's Cost Analysis

Analysis of Costs in Business Context

Significance of Opportunity Cost Concept

Unit	Hours
Different Market Structures and Equilibrium (Short Term & Long Term)	
Real Business Life Analysis of Different Markets	
Unit 3: Theory of Production	8
Production Functions and Its Managerial Uses	
Cobb Douglas Production Function and Other Forms of Production Function	
Laws of Production and Analysis	
Empirical Estimates of Production and Cost	
Short-Run and Long-Run Average Cost Curves and Their Analysis	
Economies and Diseconomies of Scale	
Economics of Information, Market Failures	
Need for Government Intervention in Markets	
Price Controls, Support Price System of Dual Pricing	
Unit 4: Pricing Policies and Strategies	4
Practical Pricing Policies and Strategies	
Collusive and Non-Collusive Oligopoly and Pricing in Its Context	
Game Theoretic Approach to Pricing Strategies	
Unit 5: Introduction to Macroeconomics	6
Concepts of National Income, Aggregate Supply, and Aggregate Demand	
Macro Equilibrium	
Macro Concepts: Inflation, Deflation, Growth and Inflation Trade-Off	
Macro Policies: Monetary Policy, Fiscal Policy	
Foreign Trade and Balance of Payments	
Foreign Exchange Market and Related Concepts	
Trades in Foreign Markets	

Text Books

1. Salvatore, Dominick and Srivastava, Ravikesh (2012) Managerial Economics: Principles and Worldwide Applications, Oxford University Press, ISBN 13: 978-0-19-807534-9
2. Petersen, C.H., Lewis, W.C. and Jain, K.Sudhir (2017) Managerial Economics. Pearson, ISBN 978- 81-7758-386-1

Reference Books

1. Varshney and Maheshwari(2018) Managerial Economics, Sultan Chand and Sons, New Delhi.
2. SoumyenSikdar(2020) Principles of Macroeconomics ,Oxford University Press
3. Gregory, N. Mankiw & Mark P.Taylor(2017) Principles of Macroeconomics. Cengage.

Supplementary Reading:

a. Weblinks:

1. https://www.youtube.com/watch?v=kgD48XXVT1c
2. https://www.youtube.com/watch?v=ADLoWIxKsyQ
3. https://open.lib.umn.edu/principleseconomics/back-matter/appendix-a-1-how-toconstruct-and-interpret-graphs/

PCC7: FINANCIAL ACCOUNTING	**Semester I**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO#	COGNITIVE ABILITIES	Course Outcome
CO1	REMEMBERING	Remember meaning of various accounting terminology
CO2	UNDERSTANDING	Understand theoretical concepts of Accounting
CO3	APPLYING	Preparation of journal, ledger, Trial balance and financial statements
CO4	ANALYSING	Analysis of financial statements, Analysis of Cost records
CO5	EVALUATING	Evaluation of Cost related parameters
CO6	CREATING	Creation of financial records

Unit & Topics	**Hours**
Unit 1: Basics of Accounting	4
Need for Accounting	
Branches of Accounting	
Capital vs Revenue	
Accounting Concepts & Conventions	
Terminology	
Accounting Standards, IFRS	
Unit 2: Accounting Process – I	10
Types of Accounts	
Golden Rules of Accounting	
Journal	
Ledger	
Trial Balance	
Unit 3: Accounting Process – II	8
Preparation and Analysis of Financial Statements	
Unit 4: Cost Accounting – I	10
Elements of Cost	
Types of Cost	
Classification and Analysis of Cost	

Unit & Topics	Hours
Preparation of Cost Sheet	
Unit 5: Marginal Costing	8
Meaning & Importance of Marginal Costing	
Break-Even Analysis	
Cost-Volume-Profit (CVP) Analysis	
PV Ratio	

Textbooks:

1. Accounting for Management, S. N. Maheshwari
2. Cost and Management Accounting, M. N. Arora
3. Accounting – T S Grewal
4. Management Accounting, Ravi Kishore

Reference Books:

1. Financial Cost and Management Accounting, P. Periasamy
2. Financial Accounting for Management, ShankarnarayananRamanath, CENGAGE Learning
3. Management Accounting, MadhuVij
4. Fundamentals of Management Accounting, H. V. Jhamb

PCC8 :STATISTICS	**Semester I**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO#	COGNITIVE ABILITIES	Course Outcome
CO1	REMEMBERING	UNDERSTAND the need and aspects of basic statistics tools
CO2	UNDERSTANDING	Describe the various statistics tools and techniques available to an individual and to corporate
CO3	APPLYING	IDENTIFY various real-life problems and measure to solve the same using statistical techniques
CO4	ANALYSING	DETERMINE the ways of statistical techniques to be established for various situations
CO5	EVALUATING	EXPLAIN various statistics-based methods available for various researches.
CO6	CREATING	CREATE a formula based for research and data interpretations.

Unit & Topics	**Hours**
Unit 1: Introduction to Statistics	6
Arranging Data to Convey Meaning - Tables	
Various Types of Graphs and Frequency Distribution	
Use of Spreadsheets/Excel	
Unit 2: Measures of Central Tendency	6
Arithmetic Mean, Median, Mode	
Measures of Dispersion – Range, Quartile, Variance, Standard Deviation, Coefficient of Variation	
Use of Spreadsheets/Excel	
Unit 3: Correlation and Regression	6
Karl Pearson Coefficient & Rank Correlation	
Simple Regression – Equation and Prediction	
Use of Spreadsheets/Excel	
Unit 4: Probability	6
Basic Concept, Bayes' Theorem	
Probability Distributions – Binomial, Poisson, and Normal	

Unit & Topics	Hours
Use of Spreadsheets/Excel	
Unit 5: Linear Programming	6
Formulation	
Graphical Solution for Basic Case Studies	

Textbooks:

1. Statistical and Quantitative Methods – By Ranjit Chitale

Reference Books:

1. Quantitative Techniques - N.D. Vohra
2. Quantitative Techniques Vol. 1 and 2 - L.C. Jhamb
3. Statistical Methods - S.P. Gupta

Program Generic Courses

PGC1: Doing Business in India	**Semester**
Credits:1	LTP:2:0:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 2 Hrs /week	Internal Assessment: 50 Marks

Course Outcomes:

CO#	COGNITIVE ABILITIES	Course Outcome
CO1	REMEMBERING	Know the key concepts
CO2	UNDERSTANDING	To understand the aspects of doing business in India
CO3	APPLYING	Application to do the business in India
CO4	ANALYSING	Analyzing the different establishments ,demographics of India
CO5	EVALUATING	Evaluate the various financing options
CO6	CREATING	Creating novel enterprises in India

Unit & Topics **Hours**

Unit 1: India as an Attractive Business Destination 3

India's Demographic Advantage
Benefits for Foreign Companies
Benefits for Domestic Entrepreneurs and SMEs
Govt. of India Initiatives: Make in India, PLI Scheme, Gati Shakti, Atmanirbhar Bharat

Unit 2: Types of Business Establishments 4

Sole Proprietorship
Partnership
LLC
Private Limited Company
Public Limited Company
One Person and Section 8 Company
Joint Venture
NGOs and Trusts

Unit 3: Facilities for New Businesses (Startups) 4

Incubators – Types
Startup India – Govt. of India Initiative
Financing Options for New Businesses - Bootstrapping
Equity Financing – Instruments (Equity / Preferred Shares)

Unit & Topics	Hours
Debt Financing – Instruments (Debentures / Loans / Deposits / CPs)	
International Financing – GDR / ADR / IDR	
Factors for Choosing Fund Route	
Unit 4: Intellectual Property Rights Framework	4
Intellectual Capital / Asset / Property – IPR Framework	
Patents	
Trademarks	
Copyrights	
Patent Infringement Case Studies	

Text books :

1. India as an Attractive Business Destination

- *"India Unbound"* – Gurcharan Das
- *"The Rise of India: Its Transformation from Poverty to Prosperity"* – Niranjan Rajadhyaksha
- *"Why India is a Good Investment?"* – P. Krishnamurthy

2. Types of Business Establishments

- *"Business Organization & Management"* – C.B. Gupta
- *"Forms of Business Organization"* – MC Shukla
- *"Company Law"* – Avtar Singh

3. Facilities for New Businesses (Startups)

- *"The Startup Owner's Manual: The Step-By-Step Guide for Building a Great Company"* – Steve Blank & Bob Dorf
- *"Zero to One: Notes on Startups, or How to Build the Future"* – Peter Thiel
- *"Startup India: The Inside Story"* – Nandini Vaidyanathan

PGC2:Effective Communication	**Semester I**
Credits:1	LTP:2:0:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 2 Hrs /week	Internal Assessment: 50 Marks

Course Outcomes:

CO#	Cognitive Abilities	Course Outcome (Student will be able to)
CO1	Remembering	Know and apply learning effectively in both spoken and written managerial communication skills.
CO2	Understanding	Distinguish various working styles, extend coordination, and collaborate among the departments in organizations.
CO3	Applying	Apply the models learned and contemporary practices in the real business world.
CO4	Analyzing	Analyze business communication well and perform managerial skills effectively.
CO5	Evaluating	Evaluate business communication well and perform managerial skills effectively.
CO6	Creating	Creatively apply knowledge in the workplace, keeping the organization active through managing effective communication and enhancing usage in personal life.

Unit & Topics **Hours**

Unit 1: Basics of Communication 6

Be Heard, Understood, and Remembered
Learning the Basics, Introduction to Communication
Managerial Functions & Styles of Communication
Principles of Effective Communication

Unit 2: Working Towards Better Communication 6

Understanding the Process of Communication
Forms of Communication
Choosing Methods of Communication, Using Virtual Platforms Effectively
Communication in a Global Environment
Recognizing Barriers to Effective Communication and Overcoming Them
Communication Dynamics in a Business Environment

Unit 3: Verbal & Nonverbal Communication 8

Nonverbal Communication - Your Body Speaks (Stance, Movement, Gestures, Facial Expressions, Eye Contact)
Understanding Gestures & Using Them Effectively
Assignment to Apply Learnings of Body Language
Verbal Communication

Unit & Topics **Hours**

Greetings and the Art of Conversation

Presentations

Oral Planning Presentation, Technical & Non-Technical Planning

Developing & Displaying Visual Aids, Use of Charts, Diagrams & Tables

Visual & Audio-Visual Aids for Communication

Telephonic Conversation, Teleconferencing

Learning to Listen and Overcoming Barriers to Effective Listening

Unit 4: Business Writing 6

Understanding Formal and Informal Environments

Etiquettes for Written Communication in Formal Business Correspondence

Email Writing Dos and Don'ts, Writing Effective Emails

Writing Business Reports and Proposals, Purpose of Business Reports

Correspondence: Letter Writing for Various Situations

Assignments Based on the Above Learnings

Unit 5: Organizational Communication 8

Organizational Communication (OC) and Its Importance in the Organization

Types of Organizational Communication

Group Discussions, Characteristics of Effective Communication

Group Decision Making and Cross-Cultural Dimensions

Resume Building

Writing Your Resume - Dos and Don'ts

Purpose of Interviewing, Types of Interviews, Style of Interviewing, Mock Interviews

Norms of Business Dressing, Panel Discussion, Debates, and Group Discussions

Conducting Meetings

Procedure - Preparing Agenda, Minutes, and Resolutions

Conducting Seminars & Conferences: Procedure of Regulating Speech

z Evaluating Oral Presentations – Drafting Speech

Text Book& References:

1. Lesikar, R.V.&Flatley ,M.E.(2005). Basic Business Communication Skills for empowering the Internet Generation. TataMcGraw Hill Publishing Company Ltd. New Delhi.
2. Ludlow, R. &Panton,F. (1998). The Essence of Effective Communications. Prentice Hall of India Pvt. Ltd.
3. Business communication, principles and methods and Techniques – Nirmal Singh, Deep and Deep publications Pvt Ltd.
4. Foundations of Business communication, India Edition – Dona. J. Young Tata McGraw – Hill
5. Business Communication Today, Bovee, Thill & Schatzman, Prentice Hall

6. Essentials of Business Communication, Mary Ellen Guffey, South-Western Educational
7. Business Communication Asha Kaul Prentice Hall of India
8. Professional Communication Aruna Koneru Tata McGraw-Hill

PGC3:Self–Awareness and Personality Development	**Semester I**
Credits:1	LTP:2:0:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 2 Hrs /week	Internal Assessment: 50 Marks

Course Outcomes:

CO#	COGNITIVE ABILITIES	Course Outcome
CO1	REMEMBERING	To understand the key concepts in Self-Awareness & Personality Development
CO2	UNDERSTANDING	To understand the individual development in terms of personality, Communication, Mind mapping, building the confidence & personal growth of the student in terms of the Organisation.
CO3	APPLYING	To help students develop critical thinking and problem-solving skills, and to connect them with real-world data.

Module & Sessions	Hours
Module 1: Introduction to Self-Awareness	4
Session 1.1: Understanding Self-Awareness	2
Definition and importance of self-awareness	
The role of self-awareness in leadership and management	
Tools for self-assessment (SWOT Analysis, Johari Window)	
Session 1.2: Exploring Personal Values and Beliefs	2
Identifying core values and beliefs	
How values influence decision-making and behaviour	
Aligning personal values with professional goals	
Module 2: Personality Development	4
Session 2.1: Personality Theories and Self-Discovery	2
Overview of major personality theories (Big Five, Myers-Briggs Type Indicator)	
Personality assessments and their applications	
Understanding your personality type and leveraging it in professional settings	
Session 2.2: Building Emotional Intelligence	2
Introduction to emotional intelligence (EI)	
Components of EI: Self-awareness, self-regulation, motivation, empathy, social skills	
Developing EI for personal and professional success	
Self-awareness and personality development	

Module & Sessions	Hours
Module 3: Communication and Mind Mapping	6
Session 3.1: Fundamentals of Effective Communication	2
Verbal, non-verbal, and written communication skills	
Active listening and empathy in communication	
Barriers to effective communication and overcoming them	
Session 3.2: Introduction to Mind Mapping	2
What is mind mapping? Understanding the concept	
Benefits of mind mapping for learning and personal development	
Tools and software for creating mind maps	
Session 3.3: Applying Mind Mapping Techniques	2
Practical exercises: Creating mind maps for problem-solving and decision-making	
Using mind mapping for goal setting and planning	
Module 4: Confidence Building and Personal Growth	6
Session 4.1: Strategies for Confidence Building	2
Identifying self-limiting beliefs and overcoming them	
The power of positive self-talk and visualization	
Building self-esteem through personal achievements	
Session 4.2: Goal Setting and Personal Development Planning	2
SMART goals for personal and professional growth	
Creating a personal development plan	
Tracking progress and staying motivated	
Self-awareness and personality development	
Session 4.3: Developing a Growth Mindset	2
Understanding the growth vs. fixed mindset	
Techniques to cultivate a growth mindset	
Applying growth mindset principles to overcome challenges	

Teaching Methodology

- Interactive Lectures: Engaging students with discussions, case studies, and examples.
- Group Activities: Role-playing, group discussions, and team-building exercises.
- Self-Assessment Tools: Administering personality tests and self-awareness quizzes.
- Practical Workshops: Public speaking sessions, mock presentations, and networkingsimulations.
- Reflective Journals: Encouraging students to maintain a journal to reflect on theirpersonal growth and learning.

Assessment

• **Class Participation** (10%): Active participation in discussions and activities.

• **Reflective Journal** (20%): Regular entries reflecting on personal development and course learnings.

• **Group Presentation** (30%): Presentation on a selected topic related to personality development or self-awareness.

• **Final Assignment** (40%): A personal development plan outlining goals, strategies, and
a reflection on the journey of self-awareness. [Evaluating the students on the day 1 and last day of the program

PGC4: Introduction to Case Studies in GM	**Semester I**
Credits:1	LTP:2:0:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 2 Hrs /week	Internal Assessment: 50 Marks

Course Outcomes:

CO#	COGNITIVE ABILITIES	Course Outcome
CO1	REMEMBERING	To understand the key concepts in case study
CO2	UNDERSTANDING	To understand the problem or situation so as to gather, organize and analyze data, and apply their knowledge in understanding corporate world.
CO3	APPLYING	To help students develop critical thinking and problem-solving skills, and to connect them with real-world data.

Case studies are important in business education because they can help students understand complex situations, capture the context of participants, and demonstrate expertise.
Live industry cases help students to apply the concepts learned in management
Case study as a mechanism to engage students in discussion of specific scenarios that resemble or typically are real-world examples.
This method is learner-centered with intense interaction between participants as they build their knowledge and work together as a group to examine the case.

Creation of Standard Components of a case:
The standard components of a case are straightforward:
· Opening section of the case -Introduction
· Industry and organization background
· Case story
· Closing
Procedure of Creating of Case:
The opening section is the most important part of a case. It usually consists of one to three paragraphs, serving as the stage setting and a “hook” at the same time. In this section When and Where Who does What, Why, and how (the six Ws) are introduced. You should tell who your protagonist is (name and position), what kind of decision he or she has to make, when and where this is happening (date and place), and why and how this would happen. It is customary to finish the opening with one or two key questions facing the protagonist. A good opening is brief, direct, and has a dramatic effect that can serve as a “hook” to motivate the reader to keep on reading. Do remember to avoid clichés, such as “Mr. Y leaned back in his chair pondering the challenges his company was facing.”
The sections that follow serve as the framework of the case. It usually has a funnel structure, moving from more general to more specific information. The section headings are not the same as the case components. For example, in the “background” and “case story” part, you can have sections entitled, “The Chemicals Industry,” “Dow and Its Acquisition Program,” “Dow’s Acquisition of Wolff Walsrode,” and “The

Integration of Wolff Walsrode." The sections headings should be short, descriptive, and straightforward to help students follow the story and locate data. Under each main heading, you can have one or several subheadings. But there should not be more than one layer of subheadings, as too many subheadings will make the case structure fragmented.
The closing section gives a short summary of the case to reiterate the decision focus and often introduces a broader new question(s). The question(s) raised in the opening paragraph is immediate, and the question(s) asked at the end is deeper and more general. The closing paragraph should be the writer's perspective.

To excel in case study assessments, the students can follow the CSAC framework:

1. Clarify: Understand the context, objectives, and problem statement thoroughly.
2. Structure: Develop a problem-solving strategy by asking key questions and framing the issue. (Is it a revenue or profit problem? Is it a demand or a supply problem?)
3. Analysis: Formulate hypotheses and propose data-driven alternatives based on the information provided.
4. Conclude: Deliver a robust, actionable recommendation supported by insights and addressing potential risks.

Please Note: Students will be asked to prepare cases in the prescribed format:

- Title page comprising of Title
- Abstract and Key-Words
- An opening paragraph/hook that generates interest and highlights the dilemma/problem
- Company/ Organisation history
- Industry background as relevant
- Key events or characters or elements of the case should be fully developed
- Complete description of the situation or problem
- Way forward(Discussion and Conclusion
- Relevant Exhibits or Appendices and References.

Important Guidelines for Submission:

- Cases are based on real people, companies, and events. Fictional cases are not accepted.
- Field: Cases based on fieldwork, interviews, and internal company data.
- Cases based on published information, requiring appropriate and sufficient footnote citations
- Cases are written in the past tense
- Case studies should be submitted only in .doc format in 12 point Times Roman font, single-spaced with 1"margins.
- Word limit of case study is 6,000 words, excluding exhibits and references in APA style.
- It is mandatory to Publish the source – Requires appropriate and sufficient footnotes for all attributed statements, actions, feelings to actual persons or subject organization.
- Citation should follow the below format https://arts.pdn.ac.lk/ichss/content/Chicago_Manual_of_Style.pdf

Website to Publish Your case :

1. https://www.iveypublishing.ca/s/?id=111053
2. https://www.emeraldgrouppublishing.com/publish-with-us/publish-a-teaching-case-study/submit-your-case-study

Online Resources & References

1. https://www.linkedin.com/posts/dr-chunduru_case-study-approach-activity-7239112892048932864-GsfM?utm_source=share&utm_medium=member_ios
2. https://www.iveypublishing.ca/cms/delivery/media/MCLRXMKO6ZZRCGJAYKVHNS5MCNS4- Submission Guidelines.- Ivy Publishing
3. https://www.emeraldgrouppublishing.com/journal/jcefts#author-guidelines ,Emerald Publishing
4. Abell, D. 1997. “What Makes a Good Case?” IMD. Farhoomand, A. 2004. “Writing Teaching Cases: A Quick Reference Guide.” University of Hong Kong CAIS.
5. Heath J. 2006. Teaching and Writing Case Studies. 3rd ed. The Case Centre.
6. Gentile, M. 1990. “Twenty-Five Questions to Ask as You Begin to Develop a New Case.” Harvard Business School.
7. Linder, J. 1990. “Writing Cases: Tips and Pointers.” Harvard Business School.
8. Leenders, M. R., Mauffette-Leenders, L. A., and Erskine, J. A. 2001. Writing Cases. 4th ed. Richard Ivey School of Business.

Semester II

Program Core Courses

PCC-1: Research Methodology	**Semester II**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO#	**COGNITIVE ABILITIES**	**Course Outcome**
CO1	REMEMBERING	Define and explain fundamental concepts, stages, and significance of business research in managerial decision-making.
CO2	UNDERSTANDING	Describe various research designs, data collection techniques, and their applications in business research.
CO3	APPLYING	Apply measurement scales, questionnaire design techniques, and data collection methods in research studies.
CO4	ANALYSING	Analyze sampling methods, hypothesis testing procedures, and data preparation techniques for research.
CO5	EVALUATING	Evaluate statistical methods such as T-test, ANOVA, correlation, and factor analysis to derive meaningful business insights.
CO6	CREATING	Design and present research reports with appropriate statistical interpretation while adhering to ethical research practices.

Unit & Topics	**Hours**
Unit 1: Introduction to Business Research	6
Definition, Scope, and Importance of Business Research	
Stages in the Research Process	
Problem Definition & Research Objectives	
Types of Research: Exploratory, Descriptive, and Causal Research	
Role of Business Research in Managerial Decision-Making	
Unit 2: Research Designs & Data Collection Techniques	8
Classification of Research Designs	
Exploratory, Descriptive & Conclusive Research Designs	

Unit & Topics	Hours
Causal Research & Experimental Designs	
Secondary Data: Nature, Sources, and Advantages	
Primary Data: Nature, Types, and Issues in Data Collection	
Unit 3: Measurement, Scaling & Questionnaire Design	8
Concept of Measurement & Its Challenges (Validity, Reliability)	
Types of Measurement Scales (Nominal, Ordinal, Interval, Ratio)	
Measurement of Attitudes & Scaling Procedures	
Questionnaire Design & Testing	
Unit 4: Sampling, Hypothesis Testing & Data Preparation	4
Sampling Theory & Sampling Designs	
Determining Sample Size & Central Limit Theorem	
Hypothesis Testing: Concept, Formulation, and Procedures	
Data Preparation Process (Editing, Coding, Classification, Tabulation)	
Unit 5: Statistical Analysis, Research Reporting & Ethical Issues	4
Introduction to SPSS & Data Analysis Tools	
Statistical Techniques: T-Test, ANOVA, Correlation & Factor Analysis	
Interpretation of Statistical Results	
Writing Research Reports for Academic & Business Purposes	
Ethical Considerations in Research: Plagiarism, Self-Plagiarism, and Publishing Ethics	

Textbooks:

1. **Zikmund, Babin, Carr, & Griffin** – *Business Research Methods*, Cengage Learning, 9th Edition, 2020. *(Covers business research concepts, research designs, and data collection techniques)*
2. **Donald R. Cooper & Pamela S. Schindler** – *Business Research Methods*, McGraw Hill, 12th Edition, 2021. *(Covers measurement, questionnaire design, hypothesis testing, and data analysis)*
3. **Uma Sekaran & Roger Bougie** – *Research Methods for Business: A Skill-Building Approach*, Wiley, 8th Edition, 2020. *(Covers sampling, statistical analysis, SPSS, and ethical issues in research)*

Reference Books:

1. **Kothari, C.R. & Gaurav Garg** – *Research Methodology: Methods and Techniques*, New Age International Publishers, 4th Edition, 2019. *(Covers hypothesis testing, sampling methods, and research reporting)*
2. **Malhotra, Naresh K. & Dash, Satya Bhushan** – *Marketing Research: An Applied Orientation*, Pearson, 7th Edition, 2020. *(Covers data collection, measurement scales, and research analysis techniques)*

3. **Andy Field** – *Discovering Statistics Using SPSS*, Sage Publications, 5th Edition, 2018. *(Covers statistical applications such as T-test, ANOVA, correlation, and factor analysis in SPSS)*

PCC2- Business and Commercial Laws	**Semester II**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO#	COGNITIVE ABILITIES	Course Outcome
CO1	REMEMBERING	Recall the basic principles of law, types of contracts, and relevant legal terms related to business.
CO2	UNDERSTANDING	Understand the application of business laws, such as the Sale of Goods Act, Consumer Protection, and Company Law, in real-world scenarios.
CO3	APPLYING	Apply legal concepts to solve business-related issues such as contract breaches, consumer disputes, and intellectual property concerns.
CO4	ANALYSING	Analyze business cases and legal precedents to assess the impact of laws on business operations and decision-making.
CO5	EVALUATING	Evaluate the effectiveness of legal frameworks, such as IPR, Cyber Law, and Consumer Protection, in promoting ethical business practices.

Unit & Topics	**Hours**
Unit 1: Introduction to Law	3
Meaning, Nature, and Classification of Law	
Sources of Law: Constitution, Legislation, Precedents, Customs	
Indian Court System	
Fundamental Rights & Duties	
Business Laws: Scope and Importance	
Unit 2: Law of Contract	6
Essentials of a Valid Contract	
Types of Contracts: Valid, Void, and Voidable	
Performance and Discharge of Contracts	
Breach of Contract and Remedies	
Special Contracts: Indemnity, Guarantee, Bailment, Pledge, and Agency	
Unit 3: Sale of Goods Act, 1930	4
Essentials of a Contract of Sale	
Conditions and Warranties	

Unit & Topics	Hours
Transfer of Ownership and Risk	
Classification of Goods	
Caveat Emptor	
Rights of an Unpaid Seller	
Auction Sale	
Unit 4: Consumer Protection Act, 2019	3
Definition of Consumer, Goods & Services, Unfair Trade Practices	
Consumer Rights and Consumer Redressal Mechanisms	
Product Liability and E-Commerce Transactions	
Unit 5: Company Law	6
Meaning & Features of Company	
Types of Companies, Incorporation of Company, Share Capital	
Memorandum & Articles of Association	
Prospectus	
Appointment and Responsibilities of Directors	
Meetings under Company Law	
Unit 6: Intellectual Property Rights (IPR)	5
Overview of IPR Laws in India	
Types: Patents, Trademarks, Copyrights, Designs, and Trade Secrets	
Registration, Protection, and Infringement	
Unit 7: Cyber Law	3
Overview of Cyber Laws in India	
E-Governance, Cyber Offences under IT Act, 2000	
Data Protection and Privacy Laws, Cyber Espionage	

Textbooks:

1. Kuchhal, M. C. – *Business Law* (Vikas Publishing House)
2. Kapoor, N. D. – *Elements of Mercantile Law* (Sultan Chand & Sons)

Reference Books:

1. Avtar Singh – *Company Law* (Eastern Book Company)
2. P. K. Goel – *Business Law for Managers* (Biztantra)
3. Bulchandani, K. R. – *Business Law* (Himalaya Publishing House)
4. Taxmann – *Bare Acts on Business and Corporate Laws*

PCC3 : PROJECT MANAGEMENT	**SEMESTER II**
Credits:2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO	**Cognitive Abilities**	**Course Outcomes**
CO1	Understanding	Understand the principles and processes of project management.
CO2	Demonstrate	Demonstrate effective communication and teamwork in project environments.
CO3	Analyse	Analyse risks and develop mitigation strategies for projects.
CO4	Evaluating	Evaluate project performance using key performance indicators (KPIs) and earned value management (EVM).
CO5	Creating	Create innovative projects for technology enabled businesses

Unit & Topics **Hours**

Unit 1: Introduction to Project Management 6

Definition, Characteristics, and Objectives of a Project

Philosophy, Principles, Need for and Knowledge Areas & Processes

Project Life Cycle and Phases

Role of a Project Manager and Stakeholders

Project Management Processes and Its Impact

Unit 2: Project Planning and Scheduling 6

Project Identification, Selection, and Planning

Organizational Structure and Issues

Gantt Charts, Critical Path Method (CPM), and PERT

Resources and Considerations in Projects

Work Breakdown Structure (WBS)

Project Cost Estimation and Budgeting

Unit 3: Risk Management 6

Risk Identification, Analysis, and Prioritization

Unit & Topics	Hours
Project Risk Management	
Risk Mitigation Strategies	
Contingency Planning	
Quality Management and Value Engineering	
PMIS; Purchasing and Contracting for Projects	
Project Performance Measurement and Evaluation	
Unit 4: Project Execution and Monitoring	6
Project Execution	
Project Communication and Stakeholder Management	
Change Management	
Key Performance Indicators (KPIs)	
Earned Value Management (EVM)	
Unit 5: Project Closure	6
Project Evaluation and Performance Analysis	
Lessons Learned and Documentation	
Post-Project Review and Audit	

Textbooks and References:

Textbooks:

- A Guide to the Project Management Body of Knowledge (PMBOK Guide), PMI
- Project Management: A Systems Approach to Planning, Scheduling, and Controlling, Harold Kerzner
- Agile Project Management with Scrum, Ken Schwaber

References:

- Project Management for Engineering, Business, and Technology, John M. Nicholas Scrum: The Art of Doing Twice the Work in Half the Time, Jeff Sutherland
- Project Management for Humans: Helping People Get Things Done, Author: Brett Harned, Published date: 2017
- Making Things Happen: Mastering Project Management, Author: Scott Berkun, Published date: 2008 (revised edition)
- Project Management for the Unofficial Project Manager, Author: Kory Kogon, Published date: 20

PCC4: MIS	**Semester II**
Credits: 2	LTP:3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO#	**COGNITIVE ABILITIES**	**Course Outcome**
CO1	REMEMBERING	Define the concept of MIS, Its components and its types
CO2	UNDERSTANDING	Understand principles and practices of MIS and its implication in the real world
CO3	APPLYING	Interpreting the role & the interdisciplinary role of the Information Systems
CO4	ANALYSING	Analysing the impact of strategic decision making involved with MIS and implement effectively in businesses
CO5	EVALUATING	Integrate their learning from functional areas, decision making process in an organization and role of Information Systems to have a vintage point in this competitive world.
CO6	CREATING	Implementing the systems and creating a unique blend effectively in individual businesses

Unit & Topics **Hours**

Unit 1: Basic Concepts of Management Information System 8

Basic Concepts of Management Information System

Role of Data and Information

Organization Structures & Systems Approach in Business Processes

Introduction & Categorization of Information Systems

Strategic Information System

Changing Environment and Its Impact on Business

Unit 2: Types of Information Systems 8

Meaning, Components, Functions, and Applications of MIS

Transaction Processing Systems

Management Information Systems

Decision Support Systems

Digital Dashboards

Artificial Intelligence and Machine Learning Systems

Unit & Topics	Hours
Unit 3: Applications of Information Systems	8
Meaning, Functions, and Applications of Functional Systems in Financial, Human Resource, Marketing, Production, and Operations	
Enterprise Systems: Business Process Integration	
ERP, Supply Chain Management Systems	
CRM & Business Intelligence	
Unit 4: Ethical and Social Issues in Information Systems	8
Securing Information Systems	
Digital Technology Trends Transforming Businesses	
Data Management & Analytics	
Business Intelligence	

Text Books:

1. Arora, Management Information System, Excel Books, 2010, 4th Edition, New Delhi.
2. C.S.V. Murthy, Management Information System, Himalaya Publishing House, 2011, 11 Edition, Mumbai.
3. G. V. Satya Sekhar, Management Information

Reference Books:

1. Kenneth Laudon, Jane Laudon Essentials of Management Information Systems PHI 10th
2. Stephen Haag, Amy Philips Business Driven Technology McGraw Hill
3. W.S. Jawadekar Management Information systems TMH
4. Raymond McLeod and George P. Schell Management Information systems Pearson

PCC5: Applied Statistics for Decision making	**Semester II**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

CO#	**COGNITIVE ABILITIES**	**Course Outcome**
CO1	REMEMBERING	UNDERSTAND the need and aspects of basic Applied statistics tools
CO2	UNDERSTANDING	Describe the various statistics tools and techniques available to an individual and to corporates
CO3	APPLYING	IDENTIFY various research-based issues to solve the same using statistical techniques
CO4	ANALYSING	DETERMINE the ways of applying statistical techniques to be established for various corporate situations
CO5	EVALUATING	EXPLAIN various statistics-based methods available strategic decision
CO6	CREATING	CREATE a formula based for research and data interpretations.

Unit & Topics	**Hours**
Unit 1: Introduction to Applied Statistics – Descriptive statistics, Types of statistics, Data types, Scalar measures, Graphical displays using spreadsheets.	6
Unit 2: Statistical Inference – Foundations of inferential statistics, Random variables, Univariate distribution functions, Population measures.	6
Unit 3: Point Estimation – Estimation and confidence intervals, Point estimation, Normal distribution, Application using spreadsheets.	6
Unit 4: Sampling Techniques – Methods of selection of a sample, Properties of simple random sampling, Merits and demerits, Determining sample size for specific precision.	6
Unit 5: Test of Hypothesis – Testing statistical hypotheses, Statistical hypothesis formulation, Hypothesis testing for population mean, P-value in hypothesis testing, Sample hypothesis testing.	6

Textbooks:

1. Gupta SC: “Fundamental of Statistics” 6thEd, Himalaya Publishers House, 2004.

Reference Books

1. Sharma JK: “Business Statistics” 2ndEdition Pearson Education, 2007.
2. Arora, PN, Arora, Sumeet and Arora, Amit: “Managerial Statistics”, S. Chand, 1stEd., 2009.
3. Bharadwaj, RS: “Business Statistics”, Excel books, 2ndEd, 2008

PCC-6: Introduction to R and Python	**Semester II**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO#	COGNITIVE ABILITIES	Course Outcome
CO1	REMEMBERING	Learn Python concepts
CO2	UNDERSTANDING	Understand various Python libraries
CO3	APPLYING	Apply python for statistical analysis
CO4	ANALYSING	Analyze data using R
CO5	EVALUATING	Evaluate data analysis outputs using R

Unit & Topics **Hours**

Unit 1: Introduction to Python 5

- Need for Python
- Data Structures in Python
- Lists and Tuples
- Sets and Dictionaries
- Arithmetic and Logical Operators in Python

Unit 2: Libraries in Python 6

- Libraries in Python - NumPy
- Libraries in Python - Pandas
- Importing Excel and CSV Files in Python
- Basic Data Analysis Using Python
- MatPlot and Seaborn Libraries
- Making Graphs in Python

Unit 3: Statistics for Machine Learning Using Python 6

- Statistics for Machine Learning
- Probability Distributions Using Python
- Inferential Statistics Concepts
- Using SciPy Library for Statistics
- One Sample t-test, Paired t-test
- Independent Sample t-test, ANOVA

Unit 4: Introduction to R 5

- Introduction to R Programming
- Data Structures in R

Unit & Topics	Hours
Importing CSV and Excel Files in R	
Data Visualization in R	
Bar Chart, Pie Chart, Histogram, Scatter Plot	
Unit 5: Statistics Using R	8
Descriptive Statistics Using R	
Probability Distributions Using R	
Single Population Hypothesis Testing	
Comparison of Two Populations	
Comparison of Multiple Populations	

Textbooks:

1. Fundamentals Of Python: First Programs, 3rd Edition Paperback – 15 August 2024
   by Kenneth A. Lambert

2. Introduction to Data Science: Practical Approach with R and Python Paperback – 1 October 2021by B. Uma Maheswari (Author), R. Sujatha (Author)

Reference Books:

1. An Introduction to Python (Also Includes What's New in Python Release - Version 3.11)By: Guido van Rossum | Publisher: Shroff Publishers & Distributors Pvt. Ltd.

PCC7: Design Thinking & Strategic Thinking	**Semester II**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO#	COGNITIVE ABILITIES	Course Outcome
CO1	REMEMBERING	Understand the concept Design Thinking & Strategic Thinking.
CO2	UNDERSTANDING	Describe the need and scope of Design Thinking & Strategic Thinking.
CO3	APPLYING	Discuss significance of Design Thinking & Strategic Thinking.
CO4	ANALYSING	Explain Design Thinking & Strategic Thinking
CO5	EVALUATING	Applications, Practices and ways to adopt / internalize Design Thinking & Strategic Thinking

Module & Topics **Hours**

Design Thinking 10

Introduction to Design Thinking
Concept and Meaning
Design Thinking Process: 5 Steps – Stanford Design Thinking Model
Benefits of the Design Thinking Process
Implementing Design Thinking
Critical Success Factors for Implementing Design Thinking
Skills Expected for Design Thinking
Design + Linking Stages
Real-World Examples + Case Studies / Activities / Exercises

Strategic Thinking 10

Introduction to Strategic Thinking
Concept and Meaning
Importance of Strategic Thinking
Strategic Thinking Components
Types of Strategic Thinking
Benefits of Strategic Thinking
Strategic Thinking in Business

Module & Topics	**Hours**
Skills Expected / Required for Strategic Thinking	
How to Improve Strategic Thinking	
Strategic Thinking Tools	10
Porter's Five Force Model	
Gartner Quadrant	
McKinsey 7-S	
BCG Matrix	
Ansoff Matrix	
Blue Ocean Strategy	
Real-World Examples + Case Studies / Activities / Exercises (Britannica)	

Text books

1. Design Thinking for Beginners: Innovation as a factor for entrepreneurial success Hardcover – Import, 18 August 2019 by Kilian Langenfeld
2. Design Your Thinking Hardcover – 23 December 2020by SONI PAVAN

Program Generic Course

PGC1: Company and Sectorial Analysis	Semester II
Credits: 2	LTP: 2:0:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 2 Hrs /week	Internal Assessment: 50 Marks

Course Outcomes:

CO#	COGNITIVE ABILITIES	Course Outcome (Student will be able to….)
CO1	REMEMBERING	Describe the fundamental structure and key sectors of the Indian economy.
CO2	UNDERSTANDING	Interpret the contributions of various sectors like agriculture, industry, and services to India's GDP and economic growth.
CO3	APPLYING	Apply sectoral analysis techniques to assess the performance and potential of different industries in India.
CO4	ANALYSING	Analyze the impact of government policies and macroeconomic indicators on sectoral growth and economic stability.
CO5	EVALUATING	Conclude the implications of sectoral trends and interlinkages on the broader economic outlook for India.
CO6	CREATING	Anticipate potential risks and opportunities in emerging sectors and their influence on the future of the Indian economy.

Unit & Topics **Hours**

Unit 1: Sectoral Analysis 8

1.1 Overview of the Indian Economy
- Structure of the Indian Economy
- Role and Structure of Agriculture, Industry, and Services
- Economic Reforms and Sectoral Growth

1.2 Emerging Sectors
- E-commerce, Startups, and Digital Economy
- Biotechnology and Pharmaceuticals
- Artificial Intelligence
- Green Economy and Sustainability
- Sectoral Innovations and Disruptions

Unit 2: Company Analysis 7

1.1 Understanding the Business Model
- Key Revenue Drivers and Cost Structures

Unit & Topics **Hours**

Business Lifecycle and Growth Strategies

1.2 Industry & Competitive Analysis

Porter's Five Forces Framework

SWOT Analysis and Competitive Positioning

1.3 Corporate Governance & Leadership Evaluation

Board Structure and Decision-Making Processes

Leadership Effectiveness and Management Strategy

1.4 Sustainability & ESG Considerations

Corporate Social Responsibility (CSR)

Environmental and Ethical Impact of Business Decisions

1.5 Interpreting Key Financial Indicators

Revenue, Profitability, and Growth Metrics

Understanding Financial Health Without Deep Technical Analysis

1.6 Risk Assessment & Business Resilience

Identifying Operational, Reputational, and Strategic Risks

Crisis Management and Adaptability Strategies

Textbooks:

- "Sectoral Analysis of the Indian Economy" – V. K. Agnihotri
- "Indian Economy" – Ramesh Singh
- "Structural Transformation of Indian Economy" – Sudip Chaudhuri
- "Indian Economy: Performance and Policies" by Uma Kapila
- India's Economic Reforms and Development: Essays for Manmohan Singh" by Isher Judge Ahluwalia and IMD Little

Reference Books:

- "Competitive Strategy: Techniques for Analyzing Industries and Competitors" – Michael E. Porter
- Blue Ocean Strategy – W. Chan Kim & Renée Mauborgne
- The McKinsey Way – Ethan M. Rasiel
- India's Financial Markets: An Insider's Guide to How the Markets Work by Ajay Shah, Susan Thomas, and Michael Gorham
- The Indian Economy: A Macro-Economic Perspective by K.R. Gupta

PGC-2: Current Business Environment	**Semester II**
Credits: 1	LTP:2:0:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 2 Hrs /week	Internal Assessment: 50 Marks

Course Outcomes:

CO#	**COGNITIVE ABILITIES**	**Course Outcome:** After completion of this course, the student will be able to :
CO1	REMEMBERING	Outline & understand various components of Business Environment.
CO2	UNDERSTANDING	Outline various components of Business Environment and explain the impact of business environment on businesses.
CO3	APPLYING	Apply the knowledge to analyze the current situations and take prudent decisions.
CO4	ANALYSING	Analyse the different business environments
CO5	EVALUATING	Evaluate the interrelationships that exist in Business Environment
CO6	CREATING	Create a deep understanding template of BE through tools.

Unit & Topics	**Hours**
Unit 1: Business Environment Introduction & Economic Advancements	4
Concepts, Significance, and Nature of Business Environment	
Elements of Environment: Internal and External	
Unit 2: Economic Environment of Business	4
Business Innovation & Startup Ecosystem	
Global Capability Centers (GCC)	
Advancements in Financial & Government Policies	
Indian Financial System & Innovations in Different Policies	
Unit 3: Legal Environment of Business	4
Critical Elements of Political Environment	
Government and Business	
Changing Dimensions of Legal Environment in India	
Unit 4: Cultural, Environmental & Technological Environment	4
Critical Elements of Socio-Cultural Environment	
Consumerism in India	
Technological Environment in India	
Research and Development	

Unit & Topics **Hours**

Patent Changes & Technology Transfer

Women and Business: National Policy for the Empowerment of Women, 2001

Text Books:

1. Justin Paul, Business Environment Text and Cases, 3e
2. Shaik Saleem, Business Environment, 2E, Pearson, 2010

Reference Books:

1. Fernando, Business Environment, IE, Pearson, 2011
2. Misra S. K & Puri V. K, Economic Environment of Business, 6E, Himalaya publishing house, 2010.

PGC3- : Presentation skills	**Semester II**
Credits: 1	LTP:2:0:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 2 Hrs /week	Internal Assessment: 50 Marks

Course Outcomes:

CO#	COGNITIVE ABILITIES	Course Outcome
CO1	REMEMBERING	Key concepts of presentation skills
CO2	UNDERSTANDING	To understand the topic or situation so as to gather, organise and analyze, and apply their knowledge and skills in understanding the different concepts & contexts in Presentations
CO3	APPLYING	To apply & implement learned skills, gather the data, make effective presentations

Skill & Topics	**Hours**
Skill 1: How to Improve Your Presentation Skills	2
Skill 2: Why Are Good Presentation Skills Important?	1
Skill 3: What Skills Do You Need for a Presentation?	-
Enhancing Presentations & How to Create an Engaging Presentation	
Skill 4: Presentation in Business Communication	2
Formal Presentation & Introduction for Your Presentation	
Skill 5: Role of Communication in Presentations	2
Body Language & Voice Modulation in Presentation and Speech	
Skill 6: Storytelling in Presentations	1
Handling Questions & Effective Feedback	
Skill 7: Organizing a Group Presentation & Team Presentation	1
Facing an Unresponsive Group & Dealing with Hostility	
Working in Cross-Cultural Teams	
Skill 8: Presentation Skills Assessment Test & Closing Remarks	2

Recommended books

1. Essential Presentation Techniques & Public Speaking

- *"Talk Like TED: The 9 Public-Speaking Secrets of the World's Top Minds"* – Carmine Gallo

- *"The Exceptional Presenter: A Proven Formula to Open Up and Own the Room"* – Timothy J. Koegel
- *"Confessions of a Public Speaker"* – Scott Berkun

2. Business & Professional Presentations
   - *"Slide:ology: The Art and Science of Creating Great Presentations"* – Nancy Duarte
   - *"The Presentation Secrets of Steve Jobs: How to Be Insanely Great in Front of Any Audience"* – Carmine Gallo
   - *"Resonate: Present Visual Stories That Transform Audiences"* – Nancy Duarte
3. Engaging & Effective Communication
   - *"Made to Stick: Why Some Ideas Survive and Others Die"* – Chip Heath & Dan Heath
   - *"HBR Guide to Persuasive Presentations"* – Nancy Duarte (Harvard Business Review)
   - *"Speak with No Fear: Go from a Nervous, Nauseated, and Sweaty Speaker to an Excited, Energized, and Passionate Presenter"* – Mike Acker
4. Storytelling & Body Language in Presentations
   - *"The Storyteller's Secret: From TED Speakers to Business Legends, Why Some Ideas Catch On and Others Don't"* – Carmine Gallo
   - *"Winning Body Language: Control the Conversation, Command Attention, and Convey the Right Message—Without Saying a Word"* – Mark Bowden
   - *"Never Be Boring Again: Make Your Business Presentations Capture Attention, Inspire Action, and Produce Results"* – Doug Stevenson

PGC-4 : Case Study in General Management	**Semester II**
Credits: 2	LTP:3:1:3
Teaching Learning Scheme	**Examination Scheme**
Lectures: 2 Hrs /week	Internal Assessment: 50 Marks

Course Outcomes:

CO#	**COGNITIVE ABILITIES**	**Course Outcome**
CO1	REMEMBERING	Key concepts to define key terms
CO2	UNDERSTANDING	To understand the problem or situation so as to gather, organise and analyze data, and apply their knowledge in understanding corporate world.
CO3	APPLYING	To help students develop critical thinking and problem-solving skills, and to connect them with real-world data.

Case studies are important in business education because they can help students understand complex situations, capture the context of participants, and demonstrate expertise.

They are extensively used in many different contexts, including research, teaching.

Case study as a mechanism to engage students in discussion of specific scenarios that resemble or typically are real-world examples.

This method is learner-centered with intense interaction between participants as they build their knowledge and work together as a group to examine the case.

Live industry cases help students to apply the concepts learned in management

Unit & Topics	**Hours**
Unit 1: General Management - Functioning of the Organization	2
CCD Case Study (SWOT Analysis Method)	
Unit 2: Foundations of Group Behavior	5
Team Effectiveness Model	
Team Processes	
Turning Individuals into Team Players	
Ethical Dilemma - "Is it Worth Hiring a Star Instead of Team Players?" Case	
Unit 3: Communication	4
Experiential Exercise - Conveying Tone through Email	
Personal Effectiveness - Providing Effective Feedback	
Candid Conversation (CIS)	

Unit & Topics	Hours
Unit 4: Diversity in Organizations	4
Two Forms of Workplace Diversity	
Levels of Diversity	
Discrimination in the Workplace	
Biographical Characteristics - Sex, Race, and Ethnicity	
Disabilities & Other Differentiating Characteristics	
Implementing Diversity Management Strategies	
Effective Diversity Programs	
Unit 5: Concluding Remarks	1
Summarizing Learnings & Evaluations	

Text & Reference books

1. General Management & Organizational Behavior
   - *"Management"* – Stephen P. Robbins & Mary Coulter
   - *"Principles of Management"* – Harold Koontz & Heinz Weihrich
   - *"Organizational Behavior"* – Stephen P. Robbins, Timothy Judge
2. Team Behavior& Group Dynamics
   - *"The Five Dysfunctions of a Team"* – Patrick Lenc1. ioni
   - *"Teams That Work: The Seven Drivers of Team Effectiveness"* – Scott Tannenbaum & Eduardo Salas
   - *"Leading Teams: Setting the Stage for Great Performances"* – J. Richard Hackman
3. Communication & Personal Effectiveness
   - *"Crucial Conversations: Tools for Talking When Stakes Are High"* – Kerry Patterson, Joseph Grenny, Ron McMillan, Al Switzler
   - *"HBR Guide to Better Business Writing"* – Bryan A. Garner
   - *"The Pyramid Principle: Logic in Writing and Thinking"* – Barbara Minto
4. Workplace Diversity & Inclusion
   - *"The Diversity Bonus: How Great Teams Pay Off in the Knowledge Economy"* – Scott E. Page
   - *"Managing Diversity: Toward a Globally Inclusive Workplace"* – Michalle E. Mor Barak
   - *"The Loudest Duck: Moving Beyond Diversity While Embracing Differences to Achieve Success at Work"* – Laura A. Liswood
5. Case Studies & Business Strategy
   - *"Case in Point: Complete Case Interview Preparation"* – Marc Cosentino
   - *"Good to Great: Why Some Companies Make the Leap... and Others Don't"* – Jim Collins
   - *"Blue Ocean Strategy"* – W. Chan Kim & Renée Mauborgne

Program Specialization Courses

PSC1: Modern Data Management	**Semester II**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcome

CO #	**Cognitive Ability**	**Course Outcome Statement**
CO1	Remembering	Describe the basic concepts and principles of data management, data modeling, data warehousing, data integration, data analytics, and cloud computing.
CO2	Understanding	Explain the significance of data management in today's digital world and describe the role of data modeling, data warehousing, data integration, data analytics, and cloud computing in managing data effectively.
CO3	Applying	Apply the principles of data management to design effective data models, implement data warehouses, integrate data from various sources, perform data analytics, and utilize cloud computing services.
CO4	Analyzing	Analyze the effectiveness of different data management strategies and techniques and identify areas for improvement.
CO5	Evaluating	Evaluate the impact of data management on business performance and decision-making and assess the benefits and drawbacks of different data management technologies and approaches.
CO6	Creating	Create a comprehensive data management plan that incorporates data modeling, data warehousing, data integration, data analytics, and cloud computing to address specific business needs or challenges.

Unit & Topics **Hours**

Unit 1: Introduction to Data Management System – Understanding Data, Information, and Knowledge; Definition, Scope, and Importance of Data 2

Unit & Topics	Hours
Management; Trends and Challenges in Data Management; Overview of Data Management Frameworks and Standards; RDBMS Concepts, ACID Properties, and Codd's Rules.	
Unit 2: Data Modeling and Relational Databases – Data Modeling Concepts and Techniques; Entity-Relationship (E-R) Model; Relational Database Principles; Understanding Normalization and Its Importance; Case Studies on Data Modeling and Database Design.	6
Unit 3: MySQL – Database Queries and Operations – Basic SQL Syntax and Query Writing; Database Operations: SELECT, INSERT, UPDATE, DELETE; Working with Database and Table Structures (CREATE, DROP, ALTER); Advanced SQL Queries: JOINS, UNION, GROUP BY; Handling NULL Values, Constraints, and Indexing; SQL Functions for String, Number, and Date Operations; Advanced SQL Features: Wildcards, Aliases, and Views.	10
Unit 4: Data Warehousing and Data Integration – Data Warehousing Concepts, Principles, and Architecture; Components of Data Warehousing; Data Warehousing Design and Implementation; Data Warehousing Operations and Maintenance; Introduction to Data Integration Concepts; Techniques and Methods of Data Integration; Challenges and Issues in Data Integration.	8
Unit 5: Cloud Computing in Data Management – Cloud Computing Concepts and Principles; Cloud Service Models (IaaS, PaaS, SaaS) and Deployment Models; Advantages and Disadvantages of Cloud Computing; Applications of Cloud Computing in Data Management; Case Studies on Cloud-Based Data Management.	4

Textbooks / Reference books:

1. Data Management and Analysis by Richard T. Watson.

2. Master Data Management and Data Governance by Alex Berson and Larry Dubov. DAMA-DMBoK, 2nd Edition, by DAMA International.

PSC2: DATA MINING	**Semester II**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcome

CO#	**COGNITIVE ABILITIES**	**Course Outcome**
CO1	REMEMBERING	DEFINE the key terms associated with Data Mining
CO2	UNDERSTANDING	EXPLAIN the various aspects of Data
CO3	APPLYING	APPLY classification models
CO4	ANALYSING	Analyze data using various clustering models
CO5	EVALUATING	SELECT appropriate association analysis and anomaly detection tools.
CO6	CREATING	COMBINE various data mining tools and use them in live analytical projects in business scenarios

Unit & Topics **Hours**

Unit 1: Basic Concepts – Concept, Definitions, and Need of Big Data, Data Mining, Business Intelligence. Data Mining Process and relation to Business Intelligence. Introduction to Data Mining Tasks (Classification, Clustering, Association Analysis, Anomaly Detection). Predictive Modeling, Real-world Applications (Mobile Environments, Fraud Detection, Business Analytics). 6

Unit 2: Data and Preprocessing – Understanding Data: Attributes, Types of Data, Data Quality. Data Normalization, Sampling, Data Cleaning, Similarity Measures. Feature Selection and its Importance in Big Data Scenarios. 7

Unit 3: Classification – Decision-Tree Based Approach, Rule-based Approach, Instance-based Classifiers, Support Vector Machines, Ensemble Learning, Classification Model Selection and Evaluation. Applications: B2B Customer Buying Stage Prediction, Recommender Systems. 7

Unit 4: Clustering – Partitional and Hierarchical Clustering Methods, Graph-based Methods, Density-based Methods, Cluster Validation. Applications: Customer Profiling, Market Segmentation. 8

Unit 5: Association Analysis & Anomaly Detection – Apriori Algorithm and its Extensions, Association Pattern Evaluation, Sequential Patterns and Frequent Subgraph Mining. Applications: B2B Customer Buying Path Analysis, 8

Unit & Topics	Hours
Medical Informatics, Telecommunication Alarm Diagnosis. Anomaly Detection: Statistical-based and Density-based Methods. Ethics of Data Mining, Privacy, and What Firms Can Know.	

Suggested Self Learning Courses : Basic and advanced data mining and python courses on swayam platform -

https://swayam.gov.in/Suggested

Textbooks:

1. Data Mining: The Textbook by Charu C. Aggarwal
2. Introduction to Data Mining by Pang-Ning Tan, Michael Steinbach, Vipin Kumar, Addison Wesley
3. Data Mining and Analysis: Fundamental Concepts and Algorithms by Mohammed J. Zaki and Wagner Meira

PSC3: Quantitative Techniques	**Semester II**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcome

CO#	COGNITIVE ABILITIES	Course Outcome
CO1	REMEMBERING	Learn LP and IP problem formulation
CO2	UNDERSTANDING	Understand assignment and transportation models
CO3	APPLYING	Apply decision analysis concepts for business decision making
CO4	ANALYSING	Analyze time and cost using Quantitative project management
CO5	EVALUATING	Evaluate simulation outputs for business decision making

Unit & Topics **Hours**

Unit 1: Linear Programming and Integer Programming – QT Modelling Phases and Steps. Linear Programming Concepts, Formulation of LP Problems. Solving LP Using Excel Solver and Sensitivity Analysis. Introduction to Integer Programming, 0-1 Integer Programming. 11

Unit 2: Transportation Models and Assignment Models – Concepts of Transportation Models, Solving Transportation Problems Using Excel Solver. Transshipment Model Concepts. Assignment Model Concepts and Problems, Assignment Model Solutions Using Excel Solver. 6

Unit 3: Decision Analysis – Introduction to Decision Analysis, Decision Analysis Under Risk and Uncertainty. 4

Unit 4: Quantitative Project Management – Critical Path Method (CPM), Program Evaluation Review Technique (PERT), and Project Crashing for Time and Cost Optimization. 4

Unit 5: Monte Carlo Simulation – Monte Carlo Simulation Concepts, Solving Single and Multi-variable Monte Carlo Simulation Problems. 5

Textbooks: Quantitative Analysis for Management by Render and Stair Prentice Hall publication

Reference Books:
Operations Research by Girish Phatak Techknowledge publications

PSC4:Data Science & Machine Learning	**Semester II**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcome

CO#	**COGNITIVE ABILITIES**	**Course Outcome**
CO1	REMEMBERING	Understand the role of data science and machine learning in business analytics. - Recognize the significance of leveraging data for making informed business decisions.
CO2	UNDERSTANDING	Demonstrate proficiency in collecting and preparing data for business analytics. - Apply techniques for cleaning and transforming raw data for effective analysis.
CO3	APPLYING	Understand predictive analytics and apply regression models for business prediction. - Implement classification techniques for making informed business decisions
CO4	ANALYSING	Understand prescriptive analytics and decision support systems
CO5	EVALUATING	Understand the impact of big data on business analytics. - Apply machine learning techniques to analyze and derive insights from big data.
CO6	CREATING	Explore industry applications of business analytics in various domains. - Analyze challenges and opportunities associated with implementing business analytics in real-world scenarios.

Objective:
This syllabus provides MBA students with a foundational understanding of data science and machine learning concepts, emphasizing their practical application in business analytics.

Unit & Topics **Hours**

Unit 1: Introduction to Data Science and Business Analytics – Overview of Data Science and Business Analytics, Role of Data in Business Decision-Making, Key Components of Data Science, Types of Business Data Analytics, Introduction to Machine Learning for Business, Challenges and Ethical Considerations, Future Trends in Data Science. 6

Unit 2: Data Collection and Preprocessing – Understanding Structured and Unstructured Data, Data Collection Strategies and Considerations, Data Preprocessing, Data Cleaning and Transformation, Handling Missing Data in Business Analytics, Importance of Quality Data. 6

Unit & Topics	Hours
Unit 3: Predictive Analytics for Business Decision-Making – Introduction to Predictive Modeling, Overview of Supervised & Unsupervised Learning, Regression Analysis for Business Predictions, Classification Techniques for Business Applications, Model Evaluation Metrics in Business Analytics.	6
Unit 4: Big Data Analytics in Business – Key Aspects of Big Data Analytics, Technologies Used in Big Data, Challenges in Implementing Big Data Analytics, Future Trends in Big Data, Introduction to Hadoop & MapReduce, NoSQL Databases, Machine Learning Applications on Big Data.	6
Unit 5: Industry Applications and Case Studies – Application of Business Analytics in Marketing, Finance, Operations, and HR, Real-World Case Studies, Success Stories, Challenges, and Opportunities in Various Industries.	6

Reference Books:

1. "Data Science and Big Data Analytics: Making Data-Driven Decisions in Indian Business" by EMC Education Services
2. "Business Analytics: A Practitioner's Guide" by S. N. Balakrishnan
3. Data Science for Business" by Foster Provost and Tom Fawcett
4. "Business Analytics: Data Analysis & Decision Making" by S. Christian Albright and Wayne L. Winston
5. "Python for Data Analysis" by Wes McKinney

Textbooks:

1. "Hands-On Machine Learning with Scikit-Learn and TensorFlow" by AurélienGéron
2. "An Introduction to Statistical Learning" by Gareth James, Daniela Witten, Trevor Hastie, and Robert Tibshirani
3. "Machine Learning Yearning" by Andrew Ng (Available online)
4. "Big Data: A Revolution That Will Transform How We Live, Work, and Think" by Viktor Mayer-Schönberger and Kenneth Cukier

Semester III
Program Core Courses

PCC-1 STRATEGIC MANAGEMENT	**Semester III**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO#	**COGNITIVE ABILITIES**	**Course Outcome** Students will be able to
CO1	UNDERSTAND	Understand various aspects of Strategy, Framework of Strategy Formulation, Implementation, and Appraisal.
CO2	APPLYING	integrate the aspects of strategy into functional areas and apply the tools of strategic formulation, Implementation, and control
CO3	ANALYZE	Analyze the challenges, and problems faced by the management team and the required approach for the appropriate functioning of the organization through strategic interventions.
CO4	CREATE	To develop the managerial capability to adopt a holistic view of an organization.

Unit & Topics **Hours**

Unit 1: Understanding Strategy & Strategic Management 6

Understanding Strategy & Strategic Management

Concept of Strategy – Corporate, Business, and Functional Levels
Meaning, Characteristics & Phases in Strategic Management Process
Stakeholders in Business and Their Roles in Strategic Management

Hierarchy of Strategic Intent

Meaning & Attributes of Strategic Intent
Vision and Process of Envisioning
Meaning and Difference Between Vision & Mission
Characteristics of Good Mission Statements
Business Definition using Abell's Three Dimensions

Unit & Topics	Hours
Objectives & Goals, Linking Objectives to Mission & Vision Critical Success Factors (CSF), Key Performance Indicators (KPI), Key Result Areas (KRA) **Analyzing Company's External Environment** Environmental Appraisal, Scenario Planning Environmental Threat and Opportunity Profile (ETOP) Industry Analysis – Porter's Five Forces Model	
Unit 2: Strategy Formulation **Analyzing Company's Internal Environment** Resource-Based View of a Firm Types & Sources of Competitive Advantage VRIO Framework, Core Competence & Distinctive Competitiveness **Value Chain Analysis Using Porter's Model** **Organizational Capability Profile** Strategic Advantage Profile, Concepts of Stretch, Leverage & Fit Ways of Resource Leveraging **Portfolio Analysis** Business Portfolio Analysis – BCG Matrix, GE 9-Cell Matrix **Generic Competitive Strategies** Low Cost, Differentiation, Focus – When to Use Which Strategy **Grand Strategies** Stability, Growth (Diversification Strategies, Vertical Integration) Mergers, Acquisitions & Takeovers Strategic Alliances & Collaborative Partnerships Retrenchment – Turnaround, Divestment, Liquidation Outsourcing Strategies	6
Unit 3: Strategy Implementation & Control **Strategic Plan Components & Implementation Challenges** Barriers to Strategy Implementation Mintzberg's 5 Ps – Deliberate & Emergent Strategies McKinsey's 7S Framework **Organization Structures for Strategy Implementation** Entrepreneurial, Functional, Divisional, SBU, Matrix, Network Structures Cellular/Modular Organizations Matching Structure to Strategy Organizational Design for Stable vs. Turbulent Environments **Corporate Culture & Learning Organizations** **Strategy Evaluation** Operations Control & Strategic Control Symptoms of Malfunctioning Strategy	8

Unit & Topics	Hours
Use of Balanced Scorecard for Strategy Evaluation	
Unit 4: Sustainability & Digital Transformation	8
Blue Ocean Strategy	
Difference Between Blue & Red Ocean Strategies	
Principles of Blue Ocean Strategy	
Strategy Canvas & Value Curves	
Four Action Framework	
Digital Transformation & Emerging Business Models	
Meaning & New Business Models for Internet Economy	
E-Commerce Business Models & Strategies	
Internet Strategies for Traditional Business	
Virtual Value Chain	
Sustainability & Strategic Management	
Sustainable Development Goals (SDG) & ESG Metrics	
Threats to Sustainability	
Integrating Social & Environmental Sustainability in Strategic Management	

Textbook:

1. Strategic Management, Richard Lynch, Pearson ISBN: 978-1-292-06466-6 (print).
2. 978-1-292-06468-0 (PDF) 978-0-292-06470-3 (eText).
3. Strategic Management and Business Policy by Ashar Kazmi.
4. Keneth Starkey Strategic Management- Issues and Cases.
5. Hitt, Ireland, Hoskisson, Manikutty Strategic Management- A South Indian Perspective.
6. Fred R. David Strategic Management.

Reference Books:

1. The Principles of Scientific Management, Taylor, F.W.
2. Strategy for a Networked WorldRamirez, R., &Mannervik.
3. The Social License: How to Keep Your Organization Legitimate,J. Morrison.
4. Strategy Without Design: The Silent Efficacy of Indirect Action, Chia, R.C.H.& Holt, R.

PCC-2 Introduction to Startups & MSMEs	**Semester III**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcome (COs):

CO#	**COGNITIVE ABILITIES**	**Course Outcome** Students will be able to
CO1	**Understand**	Define and explain the fundamental concepts of entrepreneurship, startups, and MSMEs, including their structures and significance.
CO2	**Analyze**	Examine and interpret the impact of startups and MSMEs on economic development, innovation, and employment generation.
CO3	**Apply**	Apply knowledge of legal, financial, and operational frameworks to assess the feasibility and regulatory requirements of establishing a startup or MSME.
CO4	**Evaluate**	Compare and assess various business models, funding mechanisms, and government support programs to determine the most suitable strategies for startup growth and MSME sustainability.
CO5	**Create**	Develop a structured business plan and investor pitch, incorporating financial projections, market analysis, and operational strategies.

Module & Topics	**Hours**
Module 1: Introduction to Entrepreneurship & Startups	5
Definition & Evolution of Startups and MSMEs	
Difference Between Startups, MSMEs, and Traditional Businesses	
Role of Entrepreneurship in Economic Growth	
Global vs. Indian Startup Ecosystem	
Case Studies of Successful Startups	
Module 2: Understanding MSMEs in India	5
Definition & Classification of MSMEs (Micro, Small, and	

Module & Topics	Hours
Medium Enterprises)	
Government Policies and MSME Regulations (Udyam Registration, MSME Act)	
Role of MSMEs in Employment and GDP Growth	
Financial Assistance & Subsidies for MSMEs	
Challenges and Opportunities for MSMEs	
Module 3: Business Models & Planning	5
Business Model Canvas for Startups & MSMEs	
Market Research & Opportunity Identification	
Lean Startup Methodology	
Product-Market Fit & Customer Development	
Creating a Business Plan & Pitch Deck	
Module 4: Financial & Funding Aspects	5
Funding Lifecycle of a Startup & MSME	
Bootstrapping, Angel Investors, Venture Capital, and Crowdfunding	
Government Schemes: Mudra Loans, Startup India, Standup India, SIDBI, NABARD	
Financial Statement Basics for Startups & MSMEs	
Working Capital Management	
Module 5: Legal, Compliance & Risk Management	5
Business Structures: Sole Proprietorship, Partnership, LLP, Private Limited Company	
Compliance & Regulatory Framework: GST, IPR, FDI, Taxation, Labor Laws	
Contract Management & Intellectual Property Rights	
Risk Identification & Mitigation Strategies	
Legal Challenges in Business Operations	
Module 6: Scaling & Exit Strategies	5
Growth Strategies for Startups & MSMEs	
Digital Transformation & Technology Adoption	
Franchising & Expansion	
Mergers, Acquisitions, and Exit Strategies	
Future Trends in Startups & MSMEs	

Text & Reference books

1. **"**MSME Growth & Policy Framework in India" – Government Publications

2. "Entrepreneurship Development" – S.S. Khanka
3. "Business Model Generation" – Alexander Osterwalder
4. "HBR Guide to Business Plan Writing" – Harvard Business Review
5. "Financial Intelligence for Entrepreneurs" – Karen Berman & Joe Knight
6. "Startup Funding & Venture Capital" – Mahendra Ramsinghani
7. "Startup Law and Fundraising" – Paul Swegle
8. "Legal Aspects of Business" – Akhileshwar Pathak
9. "Scaling Lean" – Ash Maurya
10. "The Hard Thing About Hard Things" – Ben Horowitz
11. "The Lean Startup" – Eric Ries
12. "Zero to One" – Peter Thiel

PCC-3: Innovation Management	**Semester III**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO#	**COGNITIVE ABILITIES**	**Course Outcome**
CO1	REMEMBERING	Define key terms in Innovation
CO2	UNDERSTANDING	Understand the fundamental concepts and principles of Innovation management
CO3	APPLYING	Application of techniques to real-world business scenarios. For innovation management
CO4	ANALYSING	Utilize tools, information and applied case studies
CO5	EVALUATING	Evaluate and select appropriate methods based on business needs.
CO6	CREATING	Develop, implement, and monitor innovation & entrepreneurial models in different business contexts.

Unit & Topics **Hours**

Unit 1: Understanding Innovation 8

- Meaning of Innovation and Necessity of Innovating
- Innovation Drivers – What Drives Innovation?
  - Global Factors
  - Market Factors
  - Demographic Factors
- Types of Innovations
  - Incremental Innovation
  - Radical Innovation
  - Breakthrough / Disruptive Innovation
- Open Innovation – Inbound and Outbound
- Technology Transfer
- Innovator's Dilemma

Unit 2: Avenues of Innovation 8

- Business Model Innovation
- Process / Configuration Innovation
- Product / Service / Performance Innovation

Unit & Topics	Hours
Customer Experience Innovation	
School of Innovation	
Structured Innovation vs. Serendipity	
Unit 3: Creative Thinking and Innovation Challenges	8
Creative Thinking Approaches	
Design / Human-Centric Thinking	
System Thinking	
Lateral Thinking	
Challenges of Innovation	
Individual Level Challenges	
Organizational Level Challenges	
Unit 4: Innovation Management & Commercialization	8
Steps of Innovation Management	
Collection of Ideas / Idea Management	
Selection of Ideas	
Experimenting with Ideas	
Business Model Creation	
Commercialization of Innovation	

Books and references

1. 8 Steps To Innovation: Going From Jugaad To Excellence- Book by Rishikesha T. Krishnan and Vinay Dabholkar.
2. Innovation and Entrepreneurship Book by Peter Drucker.
3. HBS series on Innovation and Entrepreneurship
4. Entrepreneurship and Innovation Toolkit

PCC-4 AI for Business Growth	**Semester III**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO#	COGNITIVE ABILITIES	Course Outcome Students will be able to
CO1	Understand	Understand the fundamentals of Artificial Intelligence (AI) and its strategic role in business.
CO2	Apply	Identify and describe AI applications in marketing, operations, finance, and customer experience.
CO3	Analyze	Explore and utilize AI-powered tools for business intelligence, analytics, and decision-making.
CO4	Create	Develop strategies for AI adoption in organizations, addressing implementation challenges and ethical considerations.
CO5	Evaluate	Examine and critically analyze case studies of AI-driven business transformations across industries.

Module & Topics	**Hours**
Module 1: Introduction to AI & Business Fundamentals	**5**
What is AI? History and Evolution	
Key AI Technologies: Machine Learning, NLP, Computer Vision	
AI vs. Traditional Analytics: What's the Difference?	
Ethical Considerations and Risks in AI Adoption	
AI's Impact on Business and Society	
Module 2: AI-Driven Business Transformation	**5**
AI's Role in Digital Transformation	
Industry Trends: How AI is Reshaping Industries	
The AI Maturity Model for Business Growth	
Case Study: AI Adoption in Leading Companies	
AI Strategies for Competitive Advantage	
Module 3: AI for Marketing and Customer Engagement	**5**

Module & Topics	Hours
AI-Powered Personalization and Recommendation Engines	
Chatbots and Virtual Assistants for Customer Support	
Sentiment Analysis and Social Media Listening	
AI in Advertising and Campaign Optimization	
Case Study: AI in E-commerce and Retail	
Module 4: AI in Operations and Supply Chain	**5**
Process Automation with AI and RPA (Robotic Process Automation)	
Predictive Maintenance and Smart Logistics	
AI in Inventory and Demand Forecasting	
AI for Quality Control and Defect Detection	
Case Study: AI-Driven Operational Efficiency	
Module 5: AI for Financial and Strategic Decision-Making	**5**
AI in Financial Forecasting and Risk Management	
Fraud Detection with AI and Anomaly Detection	
AI in Investment and Algorithmic Trading	
AI for Business Strategy and Competitive Analysis	
Case Study: AI in FinTech and Banking	
Module 6: Implementing AI in Business	**5**
AI Readiness: Key Steps for Business Integration	
Choosing the Right AI Tools and Platforms	
Managing Change and AI Adoption in Organizations	
Overcoming AI Implementation Challenges	
AI Governance and Best Practices	

1. **Business-Centric Approach** – Focused on practical AI adoption in corporate environments.
2. **Latest Insights** – Covers cutting-edge AI developments, ethics, and transformation models.
3. **Case Studies & Real-World Applications** – Helps students analyze **actual AI-driven business transformations**.

PCC-5Data Visualization with Python	**Semester III**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcome

CO #	**Cognitive Ability**	**Course Outcome Statement**
CO1	Understand	Understand the importance of data visualization in analytics and decision-making.
CO2	Apply	Use Python libraries like Matplotlib, Seaborn, Plotly, and Bokeh for creating visualizations.
CO3	Apply	Process and clean data efficiently to prepare for visualization.
CO4	Create	Develop advanced interactive visualizations for complex datasets.
CO5	Analyze	Implement storytelling techniques to present data insights effectively.
CO6	Create	Build interactive dashboards and real-world data visualization projects.

Unit & Topics	**Hours**
Unit 1: Introduction to Data Visualization – Importance of visualization in data analysis; Basics of Python for visualization; Overview of libraries: Matplotlib, Seaborn, Plotly, and Bokeh.	5
Unit 2: Data Handling and Preparation – Importing datasets using Pandas; Cleaning and preprocessing data; Handling missing values and outliers; Structuring data for visualization.	5
Unit 3: Basic Visualizations with Matplotlib & Seaborn – Creating line plots, bar charts, histograms, and scatter plots; Customizing graphs; Using Seaborn for enhanced statistical visualizations.	5
Unit 4: Advanced Data Visualization with Plotly& Bokeh – Interactive plots, heatmaps, geographical visualizations; Dashboards with Plotly; Customizing interactive visualizations.	5
Unit 5: Data Storytelling & Dashboarding – Principles of data storytelling;	5

Unit & Topics	Hours
Effective chart selection; Building dashboards in Python with Dash; Case studies in business intelligence.	
Unit 6: Real-World Applications & Case Studies – Financial market visualizations, sales analytics, social media trend analysis; Hands-on projects and best practices in visualization.	5

Recommended Books

1. **McKinney, W.** – *Python for Data Analysis* (O'Reilly)
2. **VanderPlas, J.** – *Python Data Science Handbook* (O'Reilly)
3. **Wirth, A.** – *The Art of Data Visualization with Python* (Packt)
4. **Subramanian, P.** – *Practical Data Science with Python* (Apress)
5. **Müller, T., & Guido, S.** – *Introduction to Machine Learning with Python* (O'Reilly)
6. **Bowman, J.** – *Interactive Data Visualization with Python* (Packt)

PCC-6 BA for Industry 4.0	**Semester III**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcome

CO #	**Cognitive Ability**	**Course Outcome Statement**
CO1	Understand	Understand the basics of Industry 4.0 and its impact on business.
CO2	Apply	Learn how data analytics helps in decision-making and improving operations.
CO3	Apply	Apply real-time analytics and IoT concepts in business scenarios.
CO4	Analyze	Use AI & ML tools for business forecasting and automation.
CO5	Evaluate	Implement digital transformation strategies in different industries.

Unit & Topics	**Hours**
Unit 1: Introduction to Industry 4.0 & Business Analytics – Understanding Industry 4.0; Key Technologies (IoT, AI, Big Data, Cloud Computing, Automation); Role of Business Analytics in modern industries; Impact on Business Models.	5
Unit 2: Data Analytics for Manufacturing & Operations – Basics of Data-Driven Decision Making; Using Analytics for Predictive Maintenance & Process Optimization; Real-life applications in manufacturing & service industries.	5
Unit 3: IoT & Real-Time Data Analytics – Introduction to Internet of Things (IoT); Collecting & Processing IoT Data; Using Real-Time Analytics for Business Efficiency; Applications in Supply Chain & Logistics.	5
Unit 4: AI & Machine Learning for Business Decisions – Basics of AI & ML; Automation & Robotics in Industry 4.0; Forecasting Trends using Predictive Analytics; Case Studies in Retail & Finance.	5

Unit & Topics	Hours
Unit 5: Digital Transformation & Business Intelligence – Role of Business Intelligence in Industry 4.0; Data-Driven Decision Making; Digital Tools for Analytics (Power BI, Tableau); Business Case Studies.	5
Unit 6: Future Trends & Challenges in Industry 4.0 – Cybersecurity & Data Privacy; Ethical Use of AI in Business; Impact on Workforce & Jobs; Adapting to Technological Changes.	5

Primary References:

1. **Andrew Burgess** – *The Executive Guide to Artificial Intelligence*
2. **Bernard Marr** – *Big Data in Practice: How 45 Successful Companies Used Big Data Analytics to Deliver Extraordinary Results*
3. **Frank T. Rothaermel** – *Digital Strategy: Theory and Cases*
4. **Michael Wade & Didier Bonnet** – *Digital Vortex: How Today's Market Leaders Can Beat Disruptive Competitors*

Additional References:

5. **U.D. Kumar** – *Big Data Analytics for Industry 4.0*
6. **Thomas H. Davenport** – *Competing on Analytics: The New Science of Winning*

Software & Tools Introduced:

- **Microsoft Excel & Power BI** – Data Visualization & Business Intelligence
- **Python (Basic Pandas & Scikit-learn)** – Simple Data Analytics
- **Cloud-Based Business Tools (AWS, Google Cloud, Azure)** – Basics of Cloud Computing
- **IoT Platforms** – Basic Overview of IoT in Business

PCC7- Internship Project	**Semester III**
Credits: 2	LTP: 1:0:6
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO#	**COGNITIVE ABILITIES**	**Course Outcome: (Student will be able to)**
CO1	APPLYING	Apply the theory concepts learned
CO2	ANALYSING	Construct relevant project allotted by the industry or write research based project report for the allotted subject
CO3	EVALUATING	Conclude observations as per industry norms
CO4	CREATING	Compile a report, write and solve organization challenges

Section	Details
Introduction	Every student enrolled is required to undertake an internship assignment within assigned companies for hands-on corporate experience and for integrating the knowledge and skills acquired through the coursework. SIP provides an opportunity to gain exposure to industry projects. It enables interactions with professionals and other summer interns, while also improving students' presentation, writing, and communication skills.
Duration	The Summer Internship takes place after the first year and before the beginning of the second year. It is conducted for a minimum duration of 60 days. Any extension of SIP duration is subject to the decision of the college.
Completion of Internship	Upon completion of the internship, students should submit the completion certificate signed by the industry guide within the stipulated time as communicated by the college. The student intern shall submit the SIP Report (including completion certificate) to the Faculty Mentor. The student should have the SIP presentation ready soon after completing the SIP.

Section	Details
Project Report	The project report serves as a guideline for the work completed during the internship.

Program Specialization Courses

PSC-1: Data Engineering & Knowledge Management	**Semester III**
Credits: 2	LTP: 3:1:1
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcome

CO #	**Cognitive**	**Course Outcome Statement**
CO1	Remembering	Recall key concepts of Data Engineering, identify Knowledge Management tools, and recognize Data Governance principles.
CO2	Understanding	Explain Data Engineering's role in Business Intelligence, discuss Knowledge Management processes, and interpret Data Integration.
CO3	Applying	Apply Data Processing techniques, utilize Knowledge Management Systems, and implement basic Data Governance practices.
CO4	Analyzing	Analyze Data Engineering architectures, examine Knowledge Management processes, and differentiate Data Integration techniques.
CO5	Evaluating	Evaluate Data Engineering solutions, assess Knowledge Management strategies, and consider ethical aspects.
CO6	Creating	Design Data Engineering pipelines, develop Knowledge Management Systems, and formulate Data Governance frameworks.

Unit & Topics	**Hours**
Unit 1: Introduction to Data Engineering and Knowledge Management – Overview of Data Engineering; Introduction to Knowledge Management; Differences and Relationships Between Data, Information, and Knowledge; Role of Data Engineering in Business Intelligence; Knowledge Management Processes and Tools.	3
Unit 2: Data Collection, Storage, and Integration – Data Collection Methods; Data Warehousing and Storage Solutions (SQL, NoSQL, Cloud Storage); ETL (Extract, Transform, Load) Processes; Data Integration Tools and Techniques; Challenges in Data Integration.	6
Unit 3: Data Processing and Transformation – Data Cleaning and Preprocessing; Data Transformation Techniques; Use of Python/R for Data Processing; Handling Big Data: Introduction to Hadoop and Spark; Case Studies on Data Processing in Business.	6

Unit & Topics	Hours
Unit 4: Data Analysis and Visualization – Statistical Analysis Methods; Predictive Analytics and Machine Learning Basics; Data Visualization Tools (Tableau, Power BI, etc.); Creating Dashboards and Reports; Data-Driven Decision Making.	5
Unit 5: Knowledge Management Systems – Components and Architecture of Knowledge Management Systems; Knowledge Repositories and Sharing Platforms; Role of AI and Machine Learning in Knowledge Management; Case Studies on Effective Knowledge Management; Challenges in Implementing Knowledge Management Systems.	5
Unit 6: Data Governance, Ethics, and Security – Data Governance Frameworks; Data Privacy Laws and Regulations (GDPR, CCPA); Ethical Considerations in Data Management; Cybersecurity in Data Engineering; Implementing Data Security Measures.	5

Textbooks:

1. "Database System Concepts" by Abraham Silberschatz, Henry F. Korth, and S. Sudarshan
2. "Fundamentals of Data Engineering" by Joe Reis and Matt Housley
3. "Knowledge Management in Theory and Practice" by KimizDalkir
4. "Knowledge Management: An Integrated Approach" by Ashok Jashapara

Reference Books:

1. "Big Data: Principles and Best Practices of Scalable Real-time Data Systems" by Nathan Marz and James Warren
2. "Designing Data-Intensive Applications" by Martin Kleppmann
3. "Data Engineering with Python" by Paul Crickard
4. "Knowledge Management: Value Creation Through Organizational Learning" by Clyde Holsapple and Meir Russ
5. "Knowledge Management: Systems and Processes" by Irma Becerra-Fernandez, Rajiv Sabherwal
6. "Knowledge Management: Value Creation Through Organizational Learning" by Danny P. Wallace
7. "Knowledge Management: An Evolutionary View" by Sudhir Warier

PSC -2: BIG Data Analytics	**Semester III**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcome

CO No.	Cognitive Ability	Course Outcome Statement
CO1	Remembering	Recall key concepts of Big Data, identify technologies and tools, and recognize data processing techniques.
CO2	Understanding	Explain the Big Data Analytics lifecycle, discuss its role in business decision-making, and interpret analytics outputs.
CO3	Applying	Apply data ingestion and processing techniques, utilize analytics tools, and implement data visualization techniques.
CO4	Analyzing	Analyze Big Data architectures, examine processing techniques, and differentiate between analytics tools.
CO5	Evaluating	Evaluate Big Data solutions, assess data-driven strategies, and consider ethical implications.
CO6	Creating	Design analytics pipelines, develop predictive models, and formulate governance policies.

Unit & Topics	**Hours**
Unit 1: Introduction to Big Data – Definition and Importance, Characteristics (5Vs), Big Data vs. Traditional Data, Business Applications (Finance, Marketing, Healthcare), Overview of Technologies and Tools	**3**
Unit 2: Big Data Infrastructure and Technologies – Big Data Ecosystem (Hadoop, Spark, and Beyond), Distributed Computing (MapReduce Framework), Storage Solutions (HDFS, NoSQL Databases like MongoDB), Cloud Computing (AWS, Azure, Google Cloud), Case Studies	**6**
Unit 3: Data Processing and Analysis – Data Ingestion Techniques, Data Cleaning and Preprocessing, Real-time vs. Batch Processing, Data Analysis with Apache Spark, Pig, Hive, Big Data Analytics Tools and Frameworks	**6**
Unit 4: Machine Learning and Predictive Analytics with Big Data – Introduction to AI and ML in Big Data, Supervised and Unsupervised Learning, Predictive Analytics (Regression, Classification), ML Tools (MLlib, TensorFlow), Business Case Studies	**5**
Unit 5: Data Visualization and Business Intelligence – Importance of Data Visualization, Tools (Tableau, Power BI), Designing Dashboards, Visual Analytics, Case Studies in Data-Driven Decision Making	**5**
Unit 6: Big Data Governance, Security, and Ethics – Governance Policies	**5**

Unit & Topics **Hours**

and Standards, Data Privacy and Security (GDPR, CCPA), Ethical Considerations, Compliance, Security Measures for Big Data

Textbooks:

1. "Big Data: Principles and Best Practices of Scalable Real-Time Data Systems" by Nathan Marz and James Warren
2. "Big Data Analytics: Concepts, Tools, and Applications" by Dr. Anil Maheshwari
3. "Big Data: A Revolution That Will Transform How We Live, Work, and Think" by Viktor Mayer- Schönberger and Kenneth Cukier
4. "Big Data Analytics" by Seema Acharya and Subhashini Chellappan

Reference Books:

1. "Data Science and Big Data Analytics: Discovering, Analyzing, Visualizing and Presenting Data" by EMC Education Services
2. "Hadoop: The Definitive Guide" by Tom White
3. "Data Mining: Concepts and Techniques" by Jiawei Han, Micheline Kamber, and Jian Pei
4. "Mining of Massive Datasets" by Jure Leskovec, Anand Rajaraman, and Jeffrey Ullman
5. "Big Data for Dummies" by Judith Hurwitz, Alan Nugent, Dr. Fern Halper, and Marcia Kaufman

PSC -3: Digital Marketing and Web Analytics	**Semester III**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcome

CO#	**COGNITIVE ABILITIES**	**Course Outcome**
CO1	REMEMBERING	Describe various digital Marketing Concepts in-line with business scenario
CO2	UNDERSTANDING	Discuss various techniques of search engine marketing
CO3	APPLYING	Explain various techniques to be identified for social media marketing
CO4	ANALYSING	Differentiate between web analytics techniques in given scenarios
CO5	EVALUATING	Justify selection of tools and techniques for digital marketing
CO6	CREATING	Plan for web analytics measure to be assessed

Unit & Topics **Hours**

Unit 1: Digital Marketing Planning and Structure – Inbound vs. Outbound Marketing, Content Marketing, Understanding Traffic & Leads, Strategic Flow for Marketing Activities, Website Structure (Domains, Buying a Domain, Website Technology), Core Objectives of a Website, Strategic Website Design (Home Page, Product & Service Page, Pricing, Portfolio, Gallery, Contact Us), Call to Action & Engagement, SEO Overview, Google Analytics Tracking Code, Website Auditing, Designing WordPress Websites **8 Hrs**

Unit 2: Search Engine Marketing & Optimization – Concept & Process of SEO, Search Engine Marketing (SEM), Pay-Per-Click (PPC) Marketing, Google AdWords, Google Trends, Google AdSense, Google Analytics, Digital Banners & Displays, Affiliate Marketing, Influencer Marketing, E-Mail Marketing (Concept & Process), Mobile Marketing (Concept & Process) **8 Hrs**

Unit 3: Social Media Marketing & Digital Trends – Understanding Social Media& Social Media Marketing, SMM Techniques & Platforms (Web & Mobile), Social Media Marketing on Facebook, YouTube, Instagram, LinkedIn, S-Commerce Trends, Emerging Digital Marketing Trends (AI, Voice Search, Virtual Reality, Hyper-Personalization) **8 Hrs**

Unit 4: Web Analytics & Performance Metrics – Introduction to Web Analytics & Web Analytics 2.0, Elements of Web Analytics 2.0 (Clickstream, Multiple Outcomes, Testing, Voice of Customer, Competitive Intelligence), Choosing Web Analytics Tools, Critical Web Metrics (Visits, Time on Page, **8 Hrs**

Unit & Topics	Hours
Bounce Rates, Exit Rates, Conversion Rates, Engagement Metrics, Web Metrics Lifecycle)	
Unit 5: Web Analytics - Measuring Success & Dashboarding – Actionable Outcome KPIs (Task Completion Rate, Share of Search, Visitor Loyalty, % of Valuable Exits, Cart & Checkout Abandonment, Days & Visits to Purchase, Average Order Value), Identifying Convertible Leads, Measuring Macro & Micro Conversions, Building Actionable Dashboards (Consolidated Dashboards, High-Impact Dashboard Rules)	**8 Hrs**

Reference Books:

1. Dave Chaffey,Fiona Ellis-Chadwick, Kevin Johnston, Richard Mayer, (2018), *Internet Marketing,* Pearson Education
2. Seema Gupta, (2020), *Digital Marketing,* McGraw Hill Publications, Second Edition.
3. Vandan Ahuja, (2015), *Digital Marketing,* Oxford University Press, Second Edition
4. Punit Bhatia, (2016), *Fundamentals of Digital Marketing,* Pearson Publications, Second Edition
5. Dave Chaffey, PR Smith, (2017), *Digital Marketing Excellence – Planning, Optimizing, Integrating Online Marketing,* Routledge (Taylor and Francis Group), Fifth Edition
6. Avinash Kaushik, (2009), W*eb Analytics 2.0: The Art of Online Accountability and Science of Customer Centricity* (Sybex) 1st Edition
7. Brent Dykes (2011) *Web Analytics Action Hero: Using Analysis to Gain Insight and Optimize Your Business,* (Adobe)
8. Jason BurbyAct,(2007), *Actionable Web Analytics: Using Data to Make Smart Business Decisions* (Paperback), (Sybex)

PSC -4: Predictive Analytics and ML Models	**Semester III**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course outcome

CO#	COGNITIVE ABILITIES	Course Outcome
CO1	UNDERSTANDING	Understand relevant methods of analysis in given scenarios
CO2	APPLYING	Apply relevant predictive analytics methodologies in different business scenarios
CO3	ANALYSING	Interpret and communicate methodological results
CO4	EVALUATING	Assess the appropriateness of analytical methods for different applications

Unit & Topics	**Hours**
Unit 1: Introduction to Predictive Analytics – Prediction vs. Interpretation, Key Concepts of Predictive Models, Terminologies, Datasets & Typical Data Scenarios, Overview of Predictive Modeling Process, Predictive Analytics vs. Business Intelligence, Predictive Analytics vs. Statistics, Predictive Analytics vs. Data Mining	**8 Hrs**
Unit 2: Linear Methods for Regression and Classification – Overview of Supervised Learning, Linear Regression Models and Least Squares, Multiple Regression, Multiple Outputs, Subset Selection, Logistic Regression	**8 Hrs**
Unit 3: Model Assessment and Selection – Bias, Variance, and Model Complexity, Bias-Variance Tradeoff, Optimism of the Training Error Rate, Estimate of In-Sample Prediction Error, Effective Number of Parameters, Cross-Validation	**8 Hrs**
Unit 4: Additive Models and Unsupervised Learning – Generalized Additive Models, Regression & Classification Trees, Random Forests, Association Rules, Cluster Analysis, Principal Components	**8 Hrs**

Reference Books:

1. Applied Predictive Analytics: Principles and Techniques for the Professional Data Analyst by Dean Abbott, Wiley Publication
2. Modeling Techniques in Predictive Analytics with Python and R: A Guide to Data Science By Thomas W. Miller (FT Press Analytics) 1st Edition
3. Applied Predictive Modeling, by Max Kuhn, Kjell Johnson, 2016,Springer
4. Python Machine Learning - Second Edition, Sebastian Raschka , Packt Publishing, (2017)

Semester IV

Program Core Courses

PCC-1 **Corporate Governance and Business Ethics**	Semester IV
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO#	**COGNITIVE ABILITIES**	**Course Outcome** Students will be able to
CO1	UNDERSTAND	To discuss unethical business practices with examples and how through codes of business ethics the companies could avoid them.
CO2	APPLYING	To explain the nature, aspects and the growing importance of business ethics in today's economy.
CO3	ANALYZE	To examine the vital characteristics of Business ethics and ethical problems arising in a business organization.

Unit & Topics **Hours**

Unit 1: Conceptual Framework of Corporate Governance 8

Introduction, Need, and Scope of Corporate Governance

Evolution and Global Developments in Corporate Governance

OECD Principles and Various Global Committees (Cadbury, Greenbury, Hamel)

Corporate Governance in India (CII Code, Naresh Chandra, Birla, Murthy, Irani, Kotak)

Board Responsibilities, Committees, Selection & Training

Unit 2: Stakeholders and Legislative Framework 8

Independent Directors, Whistle Blower Policy, Insider Trading

Legislative Framework (Listing Agreement, Clause-49, SEBI, Companies Act)

Unit & Topics	Hours
Corporate Governance and Stakeholder Responsibilities	
Unit 3: Introduction to Ethics & Business Ethics	8
Ethics, Business Ethics - Concepts & Determinants	
Importance of Business Ethics in Decision-Making	
Ethical Issues (Individual, Local, Global)	
Ethics in Functional Areas (Finance, Marketing, HRM, IT, IPR)	
Unit 4: Case Studies on Corporate Governance & Business Ethics	6
Case Studies: Enron, Satyam, Sahara, Volkswagen, Nike, Tata Steel, Infosys	

BOOKS RECOMMENDED:

1. Business Ethics -An Indian Perspective (A. C. Fernando - Pearson)
2. Business Ethics – (K. Aswathappa, J. Usha Rani, Sunanda Gundavajhala – Himalaya Publishing House)
3. Business Ethics & Corporate Governance – Jyotsna G. B., R. C. Joshi – McGraw Hill)
4. Corporate Governance – Principles & Practices (Sandeep Goel – McGraw Hill)
5. Corporate Governance in India – An Evaluation (Subhash Chandra Das – PHI Learning Pvt Ltd.)
6. Case Studies in Ethics & Corporate Governance, VOL-I, ICFAI University (OLD BOOK)

PCC-2 Data Security and Cyber Law	**Semester IV**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO#	**COGNITIVE ABILITIES**	**Course Outcome**
CO1	REMEMBERING	Develop a comprehensive understanding of cybersecurity terminologies, threats, and the significance of protecting end-user systems, critical IT infrastructure, and national security.
CO2	UNDERSTANDING	Identify and evaluate various types of cybercrimes and cyberattacks, and apply appropriate measures for prevention, mitigation, and reporting through legal channels.
CO3	APPLYING	Gain knowledge of the IT Act, 2000, and other global cyber laws to address cybercrimes and understand the legal and ethical implications of emerging technologies like AI, IoT, and blockchain.
CO4	ANALYSING	Analyze the principles of data privacy, security, and protection laws such as GDPR and India's Personal Data Protection Bill, and apply them in personal and organizational contexts.
CO5	EVALUATING	Evaluate cybersecurity plans, including policies, risk assessments, audits, and compliance strategies, to ensure effective governance and business continuity.

Unit & Topics **Hours**

Unit 1: Overview of Cyber Security 6

Cyber security threats & increasing threat landscape

Key cyber security terminologies

Protection of end-user machines & critical IT infrastructure

Cyber warfare & national security concerns

Unit & Topics	Hours
Case Studies on cyber security breaches	
Unit 2: Cybercrimes & Threats	8
Cybercrimes targeting computer systems and mobile devices	
Online scams and frauds (email scams, phishing, credit/debit card fraud, cyberbullying)	
Cybercrime against individuals (cyber grooming, stalking, child pornography)	
Social engineering attacks & identity theft	
Cyber police stations, crime reporting procedures, Case Studies	
Unit 3: Cyber Law & Legal Framework	6
Cybercrime legal landscape around the world	
IT Act, 2000, and its amendments	
Cyber offences under IT Act, corporate governance, and legal challenges	
Laws related to AI, IoT, Blockchain, and Social Media	
Unit 4: Data Privacy & Data Security	7
Understanding data types: meta-data, big data, and non-personal data	
Data privacy vs. data security	
Personal Data Protection Bill & global data protection laws (GDPR, PIPEDA)	
Social media-related privacy concerns	
Unit 5: Cyber Security Management	3
Cyber security policies and planning	
Business continuity & cyber risk assessment	
National Cyber Security Strategy	

Textbooks:

1. Cyber Security Understanding Cyber Crimes, Computer Forensics and Legal Perspectives by Sumit Belapure and Nina Godbole, Wiley India Pvt. Ltd.

Reference Books:

1. Information Warfare and Security by Dorothy F. Denning, Addison Wesley.

2. Security in the Digital Age: Social Media Security Threats and Vulnerabilities by Henry A. Oliver, Create Space Independent Publishing Platform.

3. Data Privacy Principles and Practice by Natraj Venkataramanan and Ashwin Shriram, CRC Press.

4. Information Security Governance, Guidance for Information Security Managers by W. KragBrothy, 1st Edition, Wiley Publication.

5. Auditing IT Infrastructures for Compliance By Martin Weiss, Michael G. Solomon, 2nd Edition, Jones Bartlett Learning.

PCC-3 Global Business Environment	**Semester IV**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO No.	COGNITIVE ABILITIES	Course Outcome Statement
CO1	Understand	Explain key concepts and frameworks of the global business environment.
CO2	Analyze	Analyze the impact of economic, political, legal, and cultural factors on international business.
CO3	Evaluate	Evaluate the role of global institutions in shaping international trade and business policies.
CO4	Apply	Apply international trade theories and strategies for global business expansion.
CO5	Evaluate	Assess contemporary global challenges and their impact on international business.

Module & Topics	**Hours**
Module 1: Introduction to Global Business Environment	5
Meaning and Scope of Global Business Environment	
Differences between Domestic and International Business	
Globalization: Definition, Drivers, and Impact	
Emerging Markets and Global Economic Shifts	
Module 2: Economic Environment	5
Economic Systems: Capitalism, Socialism, and Mixed Economy	
Macroeconomic Indicators: GDP, Inflation, Exchange Rates	
International Trade Theories: Comparative Advantage, Porter's Diamond Model	
Role of International Financial Institutions (IMF, World Bank, WTO)	
Module 3: Political and Legal Environment	5
Political Systems and Their Impact on Global Business	
Trade Policies: Tariffs, Quotas, and Trade Agreements (NAFTA, RCEP, EU)	
Legal Environment: Intellectual Property Rights, Contract Laws	

Module & Topics	Hours
Corporate Social Responsibility (CSR) and Ethical Business Practices	
Module 4: Cultural and Social Environment	5
Hofstede's Cultural Dimensions Theory	
Cross-Cultural Management and Negotiation	
Business Ethics and Global Leadership	
Social Trends and Consumer Behavior Across Markets	
Module 5: Global Business Strategies	5
Market Entry Strategies: Exporting, Licensing, Joint Ventures, FDI	
International Marketing and Branding Strategies	
Global Supply Chain and Logistics Management	
Risk Management in Global Business	
Module 6: Contemporary Issues in Global Business	5
Digital Transformation and E-commerce in Global Business	
Impact of COVID-19 and Future Pandemics on Global Trade	
Trade Wars and Geopolitical Risks	
Sustainable Development Goals (SDGs) and ESG Practices	

Recommended Books

1. **"International Business: Competing in the Global Marketplace"** – Charles W.L. Hill & G. Tomas M. Hult
2. **"Global Business Today"** – Charles W.L. Hill
3. **"The Global Business Environment: Meeting the Challenges"** – Janet Morrison
4. **"International Business"** – John D. Daniels, Lee H. Radebaugh, Daniel P. Sullivan
5. **"International Economics"** – Paul Krugman & Maurice Obstfeld
6. **"The World is Flat"** – Thomas L. Friedman

PCC4 : Leadership and Strategic Thinking	**Semester IV**
Credits: 2	**LTP: 3:2:0**
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO#	**COGNITIVE ABILITIES**	**Course Outcome**
CO1	REMEMBERING	Recall fundamental concepts, terms, and frameworks related to strategic thinking.
CO2	UNDERSTANDING	Explain the significance of strategic thinking in organizational contexts and differentiate it from strategic planning.
CO3	APPLYING	Apply strategic frameworks and tools (e.g., SWOT, PESTLE, scenario planning) to real-world business scenarios.
CO4	ANALYSING	Analyze complex business challenges and identify the interdependencies within and between functional areas.
CO5	EVALUATING	Evaluate strategic alternatives and decision-making approaches for their effectiveness in various business environments.
CO6	CREATING	Develop innovative and actionable strategies to address dynamic business problems and align them with organizational goals.

Unit & Topics **Hours**

Unit 1: Introduction to Strategic Thinking and Management 5

- Definition and Scope of Strategic Thinking
- Difference Between Strategic Thinking and Strategic Planning
- Characteristics of a Strategic Thinker
- Levels of Strategy: Corporate, Business, and Functional
- Strategic Thinking vs. Operational Thinking
- Importance of Vision, Mission, and Goals in Strategic Thinking
- Case Studies: Historical examples of strategic success and failures

Unit 2: Tools and Frameworks for Strategic Analysis 5

Unit & Topics	Hours
Environmental Scanning: Internal and External Analysis	
SWOT Analysis, PESTLE Analysis	
Industry and Competitor Analysis: Porter's Five Forces, Value Chain Analysis	
Scenario Planning and Forecasting	
Strategic Decision-Making Tools: BCG Matrix, GE/McKinsey Matrix, Blue Ocean Strategy	
Case Studies: Using tools in real-world scenarios	
Unit 3: Strategic Thinking in Functional Areas of Management	5
Integration of Strategic Thinking in Key Functional Areas: Marketing, Finance, Operations, HR	
Linking Functional Strategies to Corporate Strategy	
Cross-functional Collaboration for Strategy Development	
Case Studies: Functional strategies driving organizational success	
Unit 4: Leadership and Strategy Execution	5
Role of Leadership in Strategic Thinking and Execution	
Developing Strategic Alignment Across Teams	
Challenges in Strategy Execution: Communication Barriers, Resistance to Change, Resource Allocation	
Key Models for Strategy Execution: Balanced Scorecard, OKRs (Objectives and Key Results)	
Case Studies: Leadership's role in successful strategy execution	
Unit 5: Decision-Making in Strategic Thinking	5
Strategic Decision-Making Under Uncertainty	
Decision-Making Frameworks: Rational Model, Incremental Model, Garbage Can Model	
Ethics and Social Responsibility in Strategic Decision-Making	
Case Studies: Ethical dilemmas and strategic decisions	
Unit 6: Innovation, Adaptability, and Sustainability in Strategy	5
The Role of Innovation in Strategic Thinking: Disruptive Innovation, Business Model Innovation	
Global Perspectives in Strategic Thinking: Strategies for Global Expansion	
Case Studies: Sustainable and innovative strategic practices	

Textbooks:

1. "Strategic Management: Concepts and Cases" Fred R. David, Forest R. David

2. "Blue Ocean Strategy: How to Create Uncontested Market Space and Make the Competition Irrelevant" W. Chan Kim, Renée Mauborgne
3. "Competitive Strategy: Techniques for Analyzing Industries and Competitors" Michael E. Porter

Reference Books:

1. "Strategic Thinking for Leaders: A Systems Approach to Creating and Sustaining Value" J. William R. Barger, Brian G. Dive
2. Strategy Safari: A Guided Tour Through the Wilds of Strategic Management" Henry Mintzberg, Bruce Ahlstrand, Joseph Lampel

PCC-5: CONFLICT AND NEGOTIATION	**Semester IV**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO#	**COGNITIVE ABILITIES**	**Course Outcome:** (Student will be able to)
CO1	REMEMBERING	Know the key terms, types, evolution in Conflict and management
CO2	UNDERSTANDING	Understand the fundamental concepts and principles ,reasons for conflict, various types & team conflicts
CO3	APPLYING	Apply the models learned ,contemporary practices in real business world
CO4	ANALYSING	Construct conflict handling mechanisms ,existing approaches
CO5	EVALUATING	Evaluate the learned appropriate mechanisms as per the situation
CO6	CREATING	Manage conflicts in amicable ways

Unit & Topics **Hours**

Unit 1: Introduction to Conflict 5

Understanding conflict: Components, perspectives, and types

Models of conflict – Process and Structural Models

Functional & dysfunctional conflict, impact on team performance

Levels of conflict – Intrapersonal, Interpersonal, Group & Organizational

Sources of conflict – Intrapersonal, Interpersonal, Group & Organizational

Unit 2: Conflict Management Design 5

Nature of conflict management & contingency approach

Conflict management process & domain

Conflict trends, distribution, mapping, and tracking

Unit & Topics	Hours
Unit 3: Managing Conflict	8
Managing interpersonal conflict: Thomas conflict resolution approach	
Behavioral styles & conflict handling	
Cosier Schank model, collaboration & conflict resolution	
Dealing with difficult subordinates, bosses & colleagues	
Techniques to resolve team conflict	
Strategies to resolve organizational conflict	
Effective listening, dialogue skills, humor in conflict resolution	
Negotiation as a tool for conflict resolution	
Unit 4: Conflict Resolution and Cost	5
Conflict resolution models: Framework model, classical ideas	
New developments in conflict resolution	
Environmental conflict resolution	
Gender and conflict resolution	
Assessing the cost of workplace conflict	
Unit 5: Negotiations	8
Negotiation strategies – Types, process, and success factors	
Essential negotiation skills and psychological advantage	
Techniques of negotiation, issues in negotiations	
Strategies for distributive & integrative bargaining	
Finding and using negotiation power, sources of power	
Ethics in negotiation	
Managing Difficult Negotiations	
Third-party interventions: Arbitration, Mediation, Process Consultation	
Informal intervention methods	
Best practices in negotiation	

RECOMMENDED BOOKS:

1. **Textbooks:** Corporate Conflict Management - Concepts and Skills, Eirene Leela Rout, Nelson Omiko, Prentice India, 2007.
2. Negotiations, Roy J. Lewicki, David M. Saunders, Bruce Barry, 5/e, Mc Graw Hill, 2005, ISBN: 9780072973075.

Reference Books

1. Managing conflict and negotiation, B.D. Singh, 1st edition, Excel books, 2008.

2. Conflict Management: Practical guide to develop negotiation strategies, Barbara A Budjac Corvette, Pearson Prentice Hall, 2006, ISBN: 8174466428, 9788174466426
3. Managing Conflict in Organizations, M. Afzalur Rahim, 4th Edition, Transaction Publishers, 2011, ISBN 1412844258, 9781412844253.

Andragogy

1. Lectures
2. Case Studies
3. Role plays
4. Journal writing

PCC6: Business Simulation	**Semester IV**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO#	COGNITIVE ABILITIES	Course Outcome Students will be able to
CO1	UNDERSTAND	Apply theoretical business concepts in simulated environments
CO2	APPLYING	Enhance team collaboration and communication
CO3	ANALYZE	Understand complex organizational interactions
CO4	EVALUATE	Develop strategic decision-making capabilities
CO5	CREATE	Build financial and operational management skills

Unit & Topics **Hours**

Unit 1: Foundational Knowledge 6

1.1 Business Fundamentals Introduction – Organizational structures, Team formation, Management principles

1.2 Financial Management Basics – Accounting principles, Financial statement analysis, Cash flow fundamentals, Financial modeling workshop

1.3 Strategic Management Overview – SWOT analysis, Competitive landscape, Decision-making frameworks, Case study

1.4 Marketing Fundamentals – Market segmentation, Consumer behavior, Branding, Marketing strategy development

1.5 International Business Context – Global market dynamics, Economic & geopolitical analysis, Trade principles

Unit 2: Theoretical Preparation 6

2.1 Comprehensive Business Scenario Introduction – Simulation framework, Company roles, Market conditions briefing

2.2 Financial Modeling Workshop – Advanced spreadsheets, Projections, Budgeting, Investment analysis, Risk assessment

2.3 Strategic Planning Deep Dive – Competitive analysis, Scenario

Unit & Topics	Hours
planning, Decision-making, Team strategy session	
Unit 3: Marketing Strategy Development	6
3.1 Marketing Strategy Development – Advanced research, Customer segmentation, Positioning, Communication planning	
3.2 Operations & Supply Chain Management – Logistics optimization, Cost management, Efficiency improvements	
3.3 Integrated Business Simulation Preparation – Scenario walkthrough, Risk management, Simulation rules	
Unit 4: Simulation Execution – Immersive Business Experience	6
4.1 Simulation Rounds – Quarterly business simulation cycles, Decision-making, Performance tracking	
4.2 Intermediate Feedback – Progressive complexity introduction, Adaptive challenge mechanisms	
Unit 5: Reflection and Analysis – Learning Consolidation	6
5.1 Comprehensive Performance Review – Simulation results, Impact assessment, Lessons learned	
5.2 Industry Expert Panel – Guest speakers, Business insights, Q&A, Career guidance	
5.3 Final Presentation Preparation – Team presentations, Strategic narrative, Data-driven insights	
5.4 Final Simulation Showcase – Team performance, Reflection, Awards, Course conclusion	

PCC7: DISSERTATION	**Semester IV**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcomes:

CO#	COGNITIVE ABILITIES	Course Outcome: (Student will be able to)
CO1	APPLYING	Apply the subject knowledge learned over two years
CO2	ANALYSING	Research must be carried out based on the selected topic, identifying problem statement, type of data analysis and tools, write research based paper for the selected subject
CO3	EVALUATING	Appropriate tools should be used for carrying out research
CO4	CREATING	Compile a report, write and solve organization challenges

DISSERTATION NOTE

Introduction:

Dissertation is academic writing based on research.

A dissertation is a report of an extensive original research project completed as the final requirement for MBA

Dissertations give students an opportunity to:

· Explore their area of interest in depth.

· Demonstrate accuracy and skills in investigating and discussing a problem.

· Manage a critical project from the beginning to the end, most probably, for the first time.

· Apply the skills they have learned in college in a more practical way.

· Experience the process of producing knowledge.

A dissertation is a substantial document that examines a subject and reviews different points of view (about the said subject) based on original research. It demonstrates the author's mastery of the subject, scholarly methods, the main facts, and unique points of view in it.

Duration:

Dissertation takes place in fourth semester.
It is the culmination of the entire course studies undertaken during the two years.
Presentations:
A detailed individual presentation of the research will be scheduled based on selected topics.

Project Report:

Project report will be used as guideline for the work students have completed during the Dissertation. Students need to make sure that they submit a complete report to the college.
Guidelines for project report shall be shared in the classroom.
Evaluation:
Total marks allotted: 100 External Viva will be conducted.

Program specialization Courses

PSC-1: Time Series Forecasting	**Semester IV**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Objectives:

CO#	**COGNITIVE ABILITIES**	**Course Outcome**
CO1	REMEMBERING	Define key terms in forecasting
CO2	UNDERSTANDING	Understand the fundamental concepts and principles of time series forecasting.
CO3	APPLYING	Apply various forecasting techniques to real-world business challenges.
CO4	ANALYSING	Utilize software tools for data analysis and forecasting.
CO5	EVALUATING	Evaluate and select appropriate forecasting techniques based on data characteristics and business needs.
CO6	CREATING	Develop, implement, and monitor forecasting models in different business contexts.

Unit & Topics **Hours**

Unit1 :Introduction to Business Forecasting – Importance and applications in decision-making, Types of forecasting methods (Qualitative vs. Quantitative), Challenges and limitations of forecasting **3 Hrs**

Unit2 :Data Patterns – Identifying trends, seasonality, cyclic, and irregular variations in time series, Graphical analysis and visualization techniques, Statistical summaries and their role in data pattern analysis **3 Hrs**

Unit3 :Moving Averages Methods – Introduction to Simple & Weighted Moving Averages, Choosing the appropriate moving average window size, Practical implementation using Excel/Python, Evaluating forecast accuracy (MAE, MSE) **4 Hrs**

Unit4 :Time Series Forecasting – Introduction to AR, MA, ARMA, and ARIMA models, Stationarity & Differencing, Implementing ARIMA models in Python (Parameter selection & interpretation) **4 Hrs**

Unit5 :Simple Linear Regression – Introduction to regression in forecasting, Assumptions and model diagnostics, Error analysis & performance evaluation, Implementing simple linear regression using real-world data **4 Hrs**

Unit6 :Multiple Linear Regression – Introduction to multiple regression & **4 Hrs**

Unit & Topics	Hours
feature selection, Handling multicollinearity, Model refinement & best-fit selection, Hands-on implementation with Excel	
Unit7 :Judgmental Forecasting – Role of expert judgment, Combining qualitative & quantitative techniques, Delphi method, Market research, Sales forecasting case study	**4 Hrs**
Unit8 :Managing the Forecasting Process – Setting up an effective forecasting system, Continuous improvement with feedback loops & model updates, Ethical & strategic considerations, Case study	**4 Hrs**

Textbooks:

1. Business Forecasting, John E Hanke, Dean Wichern, Pearson Education.

Reference Books:

1. Journal of Time Series Analysis, Wiley Publications

PSC 2 AI and Applications	**Semester IV**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcome

CO#	**COGNITIVE ABILITIES**	**Course Outcome**
CO1	UNDERSTANDING	Describe the concepts of variants of ML algorithms
CO2	APPLYING	Examine concepts of variants to fine tune algorithms
CO3	ANALYSING	Explain functioning of algorithms while optimizing algorithms
CO4	EVALUATING	Choose the algorithm giving robust and reliable performance
CO5	Designing	Validate selected algorithms for drawing conclusion

Unit & Topics	**Hours**
Unit 1: Supervised Learning – Linear Regression, Regularization (Ridge, Lasso), Support Vector Machines (SVM), Kernel Trick, Ensemble Methods (Random Forests), Case Study	**8**
Unit 2: Unsupervised Learning – Clustering, Dimensionality Reduction, Principal Component Analysis (PCA), Hyperparameter Tuning, Case Study	**8**
Unit 3: Deep Learning – Introduction to Keras& TensorFlow, Neural Networks, Multi-layered Neural Networks, Artificial Neural Networks, Case Study	**8**
Unit 4: Natural Language Processing (NLP) – Basics, Sentiment Analysis, Python NLP Libraries, Applications, Case Study	**8**
Unit 5: Project & ML/DL Process Management – Individual project, Problem definition, Data collection, Model implementation, Evaluation, Ethical considerations, Continuous improvement, Case Study	**8**

Reference Books:

1. Applied Predictive Analytics: Principles and Techniques for the Professional Data Analyst by Dean Abbott, Wiley Publication
2. Modeling Techniques in Predictive Analytics with Python and R: A Guide to Data Science By Thomas W. Miller (FT Press Analytics) 1st Edition
3. Applied Predictive Modeling, by Max Kuhn, Kjell Johnson, 2016,Springer
4. Python Machine Learning - Second Edition, Sebastian Raschka ,Packt Publishing, (2017)

5. https://www.deeplearningbook.org/
6. Neuralnetworksanddeeplearning.com
7. Deep Learning from Scratch: Building with Python from First Principles (Greyscale Indian Edition), by Seth Weidman
8. Generative Deep Learning: Teaching Machines To Paint, Write, Compose, and Play, Second Edition (Grayscale Indian Edition)by David Foster and Karl Friston

PSC 3 :Cloud Technology & Security	**Semester IV**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcome

CO No.	Cognitive Ability	Course Outcome Statement
CO1	Understand	Understand cloud computing and its role in modern business.
CO2	Analyze	Identify different cloud models and how companies use them.
CO3	Evaluate	Recognize key security risks and strategies to protect data in the cloud.
CO4	Evaluate	Evaluate cloud service providers and their offerings.
CO5	Understand	Understand compliance, governance, and risk management in cloud adoption.
CO6	Analyze	Analyze real-world case studies on cloud implementation and security challenges.

Module & Topics	**Hours**
Module 1: Introduction to Cloud Computing – What is Cloud Computing?; Benefits of Cloud for Businesses (Cost Savings, Flexibility, Scalability); Cloud Models: Public, Private, Hybrid; Real-World Examples of Companies Using Cloud.	5
Module 2: Cloud Service Providers & Business Use Cases – Overview of Major Providers: Amazon Web Services (AWS), Microsoft Azure, Google Cloud; How Businesses Use Cloud (E-commerce, Banking, Healthcare, Startups); Factors to Consider When Choosing a Cloud Service.	5
Module 3: Cloud Security Basics – Why Security Matters in the Cloud; Common Risks (Data Breaches, Hacking, Downtime); Basic Security Measures (Passwords, Encryption, Backups); Case Studies: Major Cloud Security Incidents.	5
Module 4: Managing Risks & Compliance in Cloud – Understanding Data Privacy Laws (GDPR, HIPAA); How Companies Protect Customer Information; Business Risks & How to Manage Them; Compliance Standards (ISO, NIST).	5

Module & Topics	Hours
Module 5: Cloud Strategy & Decision-Making – When Should a Business Move to the Cloud?; Costs & Budgeting for Cloud Services; How to Ensure a Smooth Transition to the Cloud; Future Trends (AI in Cloud, Sustainability, Cloud Automation).	5
Module 6: Best Practices & Industry Insights – Lessons from Companies That Succeeded with Cloud Adoption; Best Practices for Secure Cloud Use; Group Discussions on Case Studies.	

Recommended Books (Simple & Practical)

1. "Cloud Computing for Business: The Open Group Guide" – The Open Group
2. "Cloud Computing Explained: Implementation Handbook for Business" – John Rhoton
3. "The Basics of Cloud Computing" – Derrick Rountree, Ileana Castrillo
4. "Cybersecurity for Beginners" – Raef Meeuwisse (for basic cloud security concepts)

PSC 4 :Mathematical Optimizations for Business Problems	**Semester IV**
Credits: 2	LTP: 3:2:0
Teaching Learning Scheme	**Examination Scheme**
Lectures: 3Hrs /week	Internal Assessment: 20 Marks
	Mid Sem Assessment: 30 Marks
	External Assessment: 50 Marks

Course Outcome

CO #	**Cognitive Ability**	**Course Outcome Statement**
CO1	Understand	Understand the role of optimization in solving business decision-making problems across finance, operations, and marketing.
CO2	Apply	Formulate and solve linear programming (LP) problems using graphical and simplex methods for business applications.
CO3	Apply	Apply integer programming and network optimization techniques for solving business-related transportation, logistics, and workforce allocation problems.
CO4	Analyze	Utilize decision analysis and game theory to make strategic business decisions under uncertainty and competition.
CO5	Evaluate	Implement nonlinear and stochastic optimization methods for tackling complex business problems that require predictive and adaptive strategies.
CO6	Create	Use Monte Carlo Simulation and other techniques to model and optimize real-world business scenarios and risk management strategies.

Unit & Topics **Hours**

Unit 1: Introduction to Optimization – Overview of optimization and its relevance in business decision-making; Linear vs. Nonlinear optimization; Applications in finance, operations, and supply chain management. 5

Unit 2: Linear Programming (LP) and Applications – Formulation of LP problems; Graphical and Simplex methods; Sensitivity analysis; Duality concept; Real-world applications in business. 5

Unit & Topics	Hours
Unit 3: Integer Programming and Transportation Models – Introduction to Integer Programming; Branch and Bound method; Transportation and Assignment problems; Network Flow models.	5
Unit 4: Decision Analysis and Game Theory – Decision-making under uncertainty; Decision Trees; Game Theory concepts such as Nash Equilibrium and Zero-Sum Games; Markov Chains and Dynamic Programming.	5
Unit 5: Nonlinear and Stochastic Optimization – Basics of nonlinear optimization; Quadratic and Convex programming; Introduction to heuristic approaches like Genetic Algorithms and Simulated Annealing; Stochastic Optimization techniques.	5
Unit 6: Simulation and Monte Carlo Methods – Role of simulations in decision-making; Monte Carlo Simulation for business risk analysis; Spreadsheet-based business simulations.	

Recommended Books

1. **Hillier, F. S., & Lieberman, G. J.** – *Introduction to Operations Research* (McGraw Hill)
2. **Winston, W. L.** – *Operations Research: Applications and Algorithms* (Cengage Learning)
3. **Taha, H. A.** – *Operations Research: An Introduction* (Pearson)
4. **Rardin, R. L.** – *Optimization in Operations Research* (Pearson)
5. **Bazaraa, M. S., Jarvis, J. J., & Sherali, H. D.** – *Linear Programming and Network Flows* (Wiley)
6. **Powell, S. G., & Baker, K. R.** – *Management Science: The Art of Modeling with Spreadsheets* (Wiley)

Software Tools

1. Excel Solver
2. Python & R for Optimization
3. MATLAB & LINGO for Mathematical Programming
4. Monte Carlo Simulation