M Com COMPUTER APPLICATIONS

LOCF SYLLABUS 2025

Department of Commerce Computer Applications

School of Management Studies

St. Joseph's College (Autonomous)

Tiruchirappalli - 620002, Tamil Nadu, India

SCHOOLS OF EXCELLENCE WITH CHOICE BASED CREDIT SYSTEM (CBCS) POSTGRADUATE COURSES

St. Joseph's College (Autonomous), an esteemed institution in the realm of higher education in India, has embarked on a journey to uphold and perpetuate academic excellence. One of the pivotal initiatives in this pursuit is the establishment of five Schools of Excellence commencing from the academic year 2014-15. These schools are strategically designed to confront and surpass the challenges of the 21st century.

Each School amalgamates correlated disciplines under a unified umbrella, fostering synergy and coherence. This integrated approach fosters the optimal utilization of both human expertise and infrastructure. Moreover, it facilitates academic fluidity and augments employability by nurturing a dynamic environment conducive to learning and innovation. Importantly, while promoting collaboration and interdisciplinary study, the Schools of Excellence also uphold the individual identity, autonomy, and distinctiveness of every department within.

The overarching objectives of these five schools are as follows:

1. Optimal Resource Utilization: Ensuring the efficient use of both human and material resources to foster academic flexibility and attain excellence across disciplines.
2. Horizontal Mobility for Students: Providing students with the freedom to choose courses aligning with their interests and facilitating credit transfers, thereby enhancing their academic mobility and enriching their learning experience.
3. Credit-Transfer Across Disciplines (CTAD): The existing curricular structure, compliant with regulations from entities such as TANSCHE and other higher educational institutions, facilitates seamless credit transfers across diverse disciplines. This underscores the adaptability and uniqueness of the choice-based credit system.
4. Promotion of Human Excellence: Nurturing excellence in specialized areas through focused attention and resources, thus empowering individuals to excel in their respective fields.
5. Emphasis on Internships and Projects: Encouraging students to engage in internships and projects, serving as stepping stones toward research endeavors, thereby fostering a culture of inquiry and innovation.
6. Addressing Stakeholder Needs: The multi-disciplinary nature of the School System is tailored to meet the requirements of various stakeholders, particularly employers, by equipping students with versatile skills and competencies essential for success in the contemporary professional landscape.

In essence, the Schools of Excellence at St. Joseph's College (Autonomous) epitomize a holistic approach towards education, aiming not only to impart knowledge but also to cultivate critical thinking, creativity, and adaptability – qualities indispensable for thriving in the dynamic global arena of the 21st century.

Credit system

The credit system at St. Joseph's College (Autonomous) assigns weightage to courses based on the hours allocated to each course. Typically, one credit is equivalent to one hour of instruction per week. However, credits are awarded regardless of actual teaching hours to ensure consistency and adherence to guidelines.

The credits and hours allotted to each course within a programme are detailed in the Programme Pattern table. While the table provides a framework, there may be some flexibility due to practical sessions, field visits, tutorials, and the nature of project work.

For postgraduate (PG) courses, students are required to accumulate a minimum of 92 credits, as stipulated in the programme pattern table. The total minimum number of courses offered by the department is outlined in the Programme Structure.

OUTCOME-BASED EDUCATION (OBE)

OBE is an educational approach that revolves around clearly defined goals or outcomes for every aspect of the educational system. The primary aim is for each student to successfully achieve these predetermined outcomes by the culmination of their educational journey. Unlike traditional methods, OBE does not prescribe a singular teaching style or assessment format. Instead, classes, activities, and evaluations are structured to support students in attaining the specified outcomes effectively.

In OBE, the emphasis lies on measurable outcomes, allowing educational institutions to establish their own set of objectives tailored to their unique context and priorities. The overarching objective of OBE is to establish a direct link between education and employability, ensuring that students acquire the necessary skills and competencies sought after by employers.

OBE fosters a student-centric approach to teaching and learning, where the delivery of courses and assessments are meticulously planned to align with the predetermined objectives and outcomes. It places significant emphasis on evaluating student performance at various levels to gauge their progress and proficiency in meeting the desired outcomes.

Here are some key aspects of Outcome-Based Education:

Course: A course refers to a theory, practical, or a combination of both that is done within a semester.

Course Outcomes (COs): These are statements that delineate the significant and essential learning outcomes that learners should have achieved and can reliably demonstrate by the conclusion of a course. Typically, three or more course outcomes are specified for each course, depending on its importance.

Programme: This term pertains to the specialization or discipline of a degree programme.

Programme Outcomes (POs): POs are statements that articulate what students are expected to be capable of by the time they graduate. These outcomes are closely aligned with Graduate Attributes.

Programme Specific Outcomes (PSOs): PSOs outline the specific skills and abilities that students should possess upon graduation within a particular discipline or specialization.

Programme Educational Objectives (PEOs): PEOs encapsulate the expected accomplishments of graduates in their careers, particularly highlighting what they are expected to achieve and perform during the initial years postgraduation.

LEARNING OUTCOME-BASED CURRICULUM FRAMEWORK (LOCF)

The Learning Outcomes-Centric Framework (LOCF) places the learning outcomes at the forefront of curriculum design and execution. It underscores the importance of ensuring that these outcomes are clear, measurable, and relevant. LOCF orchestrates teaching methodologies, evaluations, and activities in direct correlation with these outcomes. Furthermore, LOCF adopts a backward design approach, focusing on defining precise and attainable learning objectives. The goal is to create a cohesive framework where every educational element is in harmony with these outcomes.

Assessment practices within LOCF are intricately linked to the established learning objectives. Evaluations are crafted to gauge students' achievement of these outcomes accurately. Emphasis is often placed on employing authentic assessment methods, allowing students to showcase their learning in real-life scenarios. Additionally, LOCF frameworks emphasize flexibility and adaptability, enabling educators to tailor curriculum and instructional approaches to suit the diverse needs of students while ensuring alignment with the defined learning outcomes.

Some important terminologies

Core Courses (CC): *These are compulsory courses that students must undertake as essential components of their curriculum, providing fundamental knowledge within their primary discipline. Including core courses is essential to maintain a standardized academic programme, ensuring recognition and consistency across institutions.*

Discipline Specific Elective Courses (ES): *Elective courses are offered within the main discipline or subject of study. They allow students to select specialized or advanced options from a range of courses, offering in-depth exposure to their chosen area of study. Typically, ES are more applied in nature and provide a deeper understanding of specific topics.*

Research Methodology/IPR(RM)*: It is a two-credit course offered in the third semester as a common program across disciplines within the school. It is designed to acquaint postgraduate learners with the research foundations and legal frameworks vital for innovation and entrepreneurship in technology and business.*

Open Elective Courses (OE): *These elective courses are chosen from disciplines unrelated to the student's main area of study, aiming to broaden their exposure and knowledge base. As per the Choice Based Credit System (CBCS) policy, students may opt for open elective courses offered by other disciplines within the college, enhancing the diversity of their learning experience.*

Ability Enhancement Course (AEC): *AE is designed to enhance skills and proficiencies related to the student's main discipline. It aims to provide practical training and hands-on experience, contributing to the overall development of students pursuing academic programmes.*

Skill Enhancement Course (SEC): *SE focus on developing specific skills or proficiencies relevant to students' academic pursuits. While it is open to students from any discipline, SE is particularly beneficial for those within the related academic programme.*

Self-Learning (SL): *A two-credit course designed to foster students' ability for independent and self-directed learning. There are* Three Self-Learning Courses:

- 'Global Citizenship Education' *a common online course offered to all PG students in Semester I on JosTEL.*
- *Compulsory MOOC on NPTEL-SWAYAM in Semester I or II*
- *A Department-Specific Self-Learning Course in Semester III on JosTEL*

Comprehensive Examination (CE): *These examinations cover detailed syllabi comprising select units from courses offered throughout the programme. They are designed to assess crucial knowledge and content that may not have been covered extensively in regular coursework.*

Extra Credit Courses: *To support students in acquiring knowledge and skills through online platforms such as Massive Open Online Courses (MOOCs), additional credits are granted upon verification of course completion. These extra credits can be availed across three semesters (2 - 4). In line with UGC guidelines, students are encouraged to enhance their learning by enrolling in MOOCs offered by portals like SWAYAM, NPTEL, and others. Additionally, certificate courses provided by the college are also considered for these extra credits.*

Outreach Programme (OR): *It is a compulsory course to create a sense of social concern among all the students and to inspire them to dedicated service to the needy.*

Course Coding

The following code system (10 alphanumeric characters) is adopted for Postgraduate courses:

25	UXX	0	XX	00/X
Year of Revision	PG Department Code	Semester Number	Course Specific Initials	Running Number/with Choice

Course Specific Initials

CC - Core Course

CP - Core Practical

ES - Discipline Specific Elective

AE - Ability Enhancement Course

SL - Self-Learning

OE – Open Elective

PW - Project and Viva Voce

CE - Comprehensive Examination

OR - Outreach Programme

IS – Internship

RM – Research Methodology

EVALUATION PATTERN (PG)

Continuous Internal Assessment

Sl No	Component	Marks Allotted
1	Mid Semester Test	30
2	End Semester Test	30
3	*Two Components (15 + 20)	35
4	Library Referencing	5
	Total	**100**

Passing minimum: 50 marks

* *The first component is a compulsory online test (JosTEL platform) for 15 marks comprising 7 questions (1 mark) at K1 level and 4 questions (2 marks) at K2 level;* The second component is decided by the course in-charge in accordance with the prescribed K levels.

Question Paper Blueprint for Mid and End Semester Tests

Duration: 2 Hours								**Maximum Marks: 60**
Section		**K levels**						**Marks**
		K1	**K2**	**K3**	**K4**	**K5**	**K6**	
A *(compulsory)*		7						7 × 1 = 7
B *(compulsory)*			5					5 × 3 = 15
C *(either…or type)*				3				3 × 6 = 18
D *(2 out of 3)*	Mid Sem				1(2)	1*		2 × 10 = 20
	End Sem					1(2)	1*	
							Total	**60**

***** *Compulsory*

Question Paper Blueprint for Semester Examination

Duration: 3 Hours						**Maximum Marks: 100**
Section	**K levels**					**Marks**
	K1	**K2**	**K3**	**K4**	**K5**	**K6**	
A *(compulsory)*	10						10 × 1 = 10
B *(compulsory)*		10					10 × 3 = 30
C *(either…or type)*			5				5 × 6 = 30
D *(3 out of 5)*				1(2)	1(2)	1*	3 × 10 = 30
						Total	**100**

***** *Compulsory*

Evaluation Pattern for One/Two-credit Courses

Title of the Course	CIA	Semester Examination	Final
• Ability Enhancement Course	20 + 10 + 20 = 50	50 *(Department)*	100
• Self - Learning Course (Dept. Specific) • Comprehensive Examination	25 + 25 = 50	50 *(CoE)*	100
• Internship • Self - Learning Course (Common) • Self - Learning Online Course (NPTEL / SWAYAM)	100	-	100
• Skill Enhancement Course: Soft Skills	100	-	100
• Project Work and Viva Voce	100	100	100

Grading System

The marks obtained in the CIA and semester for each course will be graded as per the scheme provided in Table - 1.

From the second semester onwards, the total performance within a semester and the continuous performance starting from the first semester are indicated by Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA), respectively. These two are calculated by the following formulae:

$$SGPA \ and \ CGPA = \frac{\sum_{i=1}^{n} C_i Gp_i}{\sum_{i=1}^{n} C_i}$$

$$WAM = \frac{\sum_{i=1}^{n} C_i M_i}{\sum_{i=1}^{n} C_i}$$

Where,

Ci - credit earned for the Course i

Gpi - Grade Point obtained for the Course i

Mi - Marks obtained for the Course i

*n - Number of Courses **passed** in that semester*

WAM - Weighted Average Marks

Table - 1: Grading of the Courses for PG

Mark Range	Grade Point	Corresponding Grade
90 and above	10	O
80 and above and below 90	9	A+
70 and above and below 80	8	A
60 and above and below 70	7	B+
50 and above and below 60	6	B
Below 50	0	RA

Table - 2: Grading of the Final Performance for PG

CGPA	Grade	Performance
9.00 and above	O	Outstanding*
8.00 to 8.99	A+	Excellent*
7.00 to 7.99	A	Very Good
6.00 to 6.99	B+	Good
5.00 to 5.99	B	Above Average
Below 5.00	RA	Re-appear

**The Candidates who have passed in the first appearance and within the prescribed duration of the PG programme are eligible. If the Candidates Grade is O/A+ with more than one attempt, the performance is considered "Very Good".*

Vision

Forming globally competent, committed, compassionate and holistic persons, to be men and women for others, promoting a just society.

Mission

- Fostering learning environment to students of diverse background, developing their inherent skills and competencies through reflection, creation of knowledge and service.
- Nurturing comprehensive learning and best practices through innovative and value- driven pedagogy.
- Contributing significantly to Higher Education through Teaching, Learning, Research and Extension.

Programme Educational Objectives (PEOs)

1. Graduates will be able to accomplish professional standards in the global environment.
2. Graduates will be able to uphold integrity and human values.
3. Graduates will be able to appreciate and promote pluralism and multiculturalism in working environment.

Programme Outcomes (POs)

1. Graduates will be able to apply assimilated knowledge to evolve tangible solution to emerging problems.
2. Graduates will be able to analyze and interpret data to create and design new knowledge.
3. Graduates will be able to engage in innovative and socially relevant research and effectively communicate the findings.
4. Graduates will become ethically committed professional and entrepreneurs upholding human values.
5. Graduates imbibed with ethical values and social concern will be able to understand and appreciate cultural diversity, social harmony and ensure sustainable environment.

Programme Specific Outcomes (PSOs)

1. Graduates will obtain the knowledge and ability in computer applications by gaining and training in Data base systems, RDBMS, web designing, OOP with C++ and JAVA, Object-Oriented Programming, Financial Accounting Package-Tally ERP-9 and have inter-twining competence in the field of Commerce and Computer Application.
2. Graduates are trained with managerial skills, human resource management, and management information system to get employment and leadership in global level.
3. Graduates are trained with the application oriented research through research for business decisions.
4. Graduates become proficient in using information technology and accounting tools in decision making process, get acquainted with the knowledge to pursue higher education through research.
5. Graduates will acquire the ability of entrepreneurship sills in business and techniques of managing the business with special focus on cost Accounting, labour laws, operation research and Business taxation.

M.Com. Computer Application				
Programme Structure				
Semester	**Specification**	**No. of Courses**	**Hours**	**Credits**
1 – 4	Core Course	14	67	51
1 - 4	Core Practical	5	17	10
1, 3 & 4	Discipline Specific Elective	3	12	9
1 – 2	Open Elective	2	8	4
1	Ability Enhancement Course	1	2	1
1 – 3	Self-Learning	3	-	4
2	Skill Enhancement Course	1	4	2
3	Research Methodology	1	4	2
4	Project	1	6	3
4	Comprehensive Examination	1	-	2
2 – 4	Outreach Programme (SHEPHERD)	-	-	4
1 – 4	Extra Credit Course	4	-	12
	Total	**36**	**120**	**92 (12)**

M.COM. COMPUTER APPLICATION PROGRAMME PATTERN								
Course Details						Scheme of Exams		
Sem.	Course Code	Course Type	Title of the Course	Hours	Credits	CIA	SE	Final
1	25PCC1CC01	CC Major	**Core Course – 1:** Financial Management	6	5	100	100	100
	25PCC1CC02		**Core Course – 2:** Digital marketing	4	3	100	100	100
	25PCC1CP01		**Core Practical - 1:** Digital marketing	4	2	100	100	100
	25PCC1CC03		**Core Course - 3:** Banking and Insurance	6	5	100	100	100
	25PCC1ES01A	DSE	**Discipline Specific Elective – 1:** Software Engineering	4	3	100	100	100
	25PCC1ES01B		**Discipline Specific Elective – 1:** Strategic Human Resource Management					
	25PCC1AE01	AEC	**Ability Enhancement Course:** Advanced Excel (Practical)	2	1	100	-	100
	25PCC1OE01	OE	**Open Elective – 1 (WS):** Financial Planning and Wealth Management	4	2	100	100	100
	25PGC1SL01	SL	Global Citizenship Education (Online)	0	1	100	-	100
			Extra Credit Course	0	(3)			
			Total	**30**	**22 (3)**			
2	25PCC2CC04	CC Major	**Core Course - 4:** Managerial Skills (Internship Embedded Course)	5	3	100	100	100
	25PCC2CC05		**Core Course - 5:** Cost Accounting Techniques	6	5	100	100	100
	25PCC2CC06		**Core Course - 6:** Operations Research	5	3	100	100	100
	25PCC2CC07		**Core Course -7:** Python Programming	3	3	100	100	100
	25PCC2CP02		**Core Practical - 2:** Python Programming	3	2	100	100	100
	25PCC2OE02	OE	**Open Elective - 2 (BS):** Behavioural Dynamics and Psychology	4	2	100	100	100
	25PSS2SE01	SEC	**Skill Enhancement Course:** Soft Skills	4	2	100	-	100
	25PCC2SL02	SL	Online Courses: (NPTEL / SWAYAM)	0	2	-	100	100
			Extra Credit Course	0	(3)			
			Total	**30**	**22 (3)**			
3	25PCC3CC08	CC Major	**Core Course - 8:** Labour Legislations	5	4	100	100	100
	25PCC3CC09		**Core Course - 9:** Advanced Corporate Accounting	6	4	100	100	100
	25PCC3CC10		**Core Course - 10:** Big Data Analysis	3	2	100	100	100
	25PCC3CP03		**Core Practical - 3:** Data Analysis using R	3	2	100	100	100
	25PCC3CC11		**Core Course - 11:** Organizational Behaviour	5	4	100	100	100
	25PCC3ES02A	DSE	**Discipline Specific Elective – 2:** Social Entrepreneurship	4	3	100	100	100
	25PCC3ES02B		**Discipline Specific Elective – 2:** Data mining					
	25SMS3RM01	RM	Intellectual Property Rights (IPR)	4	2	100	100	100
	25PCC3SL03	SL	**Self-Learning:** Cloud Computing*		1	50	50	50
			Extra Credit Course		(3)			
			Total	**30**	**22 (3)**			
4	25PCC4CC12	CC Major	**Core Course - 12:** Business Taxation	6	5	100	100	100
	25PCC4CC13		**Core Course - 13:** Financial Accounting Package – Tally Prime	4	3	100	100	100
	25PCC4CP04		**Core Practical - 4:** Financial Accounting Package –Tally Prime	4	2	100	100	100
	25PCC4CC14		**Core Course - 14:** Research Methodology	3	2	100	100	100
	25PCC4CP05		**Core Practical - 5:** Data Analytics for Social Sciences Using SPSS	3	2	100	100	100
	25PCC4ES03A	DSE	**Discipline Specific Elective - 3:** Transformative Applications of AI	4	3	100	100	100
	25PCC4ES03B		**Discipline Specific Elective - 3:** Business Logistics Management					
	25PCC4PW01	PW	Project	6	3	100	100	100
	25PCC4CE01	CE	Comprehensive Examination*	0	2	50	50	50
			Extra Credit Course	0	(3)			
			Total	**30**	**22(3)**			
	25PCW4OR01	OR	Outreach Programme	0	4			
1-4			**TOTAL**	**120**	**92 (12)**			

***For Grade Calculation:** Marks obtained out of 50 will be converted into 100 in the mark statements.

Open Elective - 1 (WS): 1st Semester

School	Course Code	Title of the Course
SMS		
Commerce	25PCO1OE01	Supply Chain Management
Commerce Computer Application	25PCC1OE01	Financial Planning and Wealth Management
Counselling Psychology	25PCP1OE01	Organizational Behavior
Economics	25PEC1OE01	Labour Economics
Human Resource Management	25PHR1OE01	Human Behaviour in Organization

Open Elective – 2* (BS): 2nd Semester
Offered to students from other Schools

School	Course Code	Title of the Course
SBS		
Botany	25PBO2OE02	Sustainable Horticulture and Urban Landscaping
Biochemistry	25PBI2OE02	First Aid Management
Biotechnology	25PBT2OE02	Food Technology
SCS		
Artificial Intelligence and Machine Learning	25PAI2OE02	Cyber Security
Computer Science	25PCA2OE02A	Web Design
	25PCA2OE02B	Cyber Security
Information Technology	25PCS2OE02	Recent Trends in Computing
Data Science	25PDS2OE02	Discrete Mathematics
Mathematics	25PMA2OE02	Operations Research
Visual Communication	25PVC2OE02	Women and Media
SLAC		
English	25PEN2OE02	English for Digital Media
History	25PHS2OE02	Public Administration
Tamil	25PTA2OE02	விளம்பரக்கலை (Art of advertising)
SMS		
Commerce	25PCO2OE02	Basics of Tally Prime
Commerce Computer Application	25PCC2OE02	Behavioural Dynamics and Psychology
Counselling Psychology	25PCP2OE02	Artificial Intelligence in Psychology
Economics	25PEC2OE02	Managerial Economics
Human Resource Management	25PHR2OE02	Counselling and Guidance
SPS		
Chemistry	25PCH2OE02	Chemistry of Health and Nutrition
Electronics	25PEL2OE02	Computer Hardware and Networks
Physics	25PPH2OE02A	Physics for Competitive Exams
	25PPH2OE02B	Nanoscience

Semester	Course Code	Title of the Course	Hours	Credits
1	25PCC1CC01	**Core Course – 1:** Financial Management	6	5

Course Objectives
To Comprehend the financial management functions and to Prepare the financial statements
To Impart the importance of cost of capital and capital structure theories.
Familiarize the various sources of finance and capital budgeting techniques.
To Develop knowledge on working capital requirement of a concern and management of working capital.
To Build knowledge on dividend policies and decisions.

UNIT: 1 Financial Management Functions and Financial Statement analysis (18 Hours)

Ancient Indian Economic Thought & Financial Management - Indigenous Banking and Finance Systems - Traditional Investment & Risk Management-Ethical Financial Management & Sustainability- Nature – Scope - Objectives of Financial Management – Functions of Financial Management – Financial Statement analysis – Tools of analysis - Comparative statement analysis – Common size statement analysis – Ratio analysis – Different types of ratios – Uses and limitations of ratios – Time Value of Money - Present Value - Future Value and Compound techniques.

UNIT: II - Capital Structure and Cost of Capital (18 Hours)

Capital structure decisions: Meaning and significance of capital structure - capital structure planning and designing - optimal capital structure - determinants of capital structure - capital structure and valuation - theoretical analysis-; EBIT –EPS analysis

Cost of capital: Meaning and definition cost of capital, factors affecting cost of capital, measurement of cost of capital, weighted average and marginal cost of capital

UNIT: III - Capital budgeting decisions: (18 Hours)

Meaning, definition of capital budgeting; planning, control &process of preparing capital budgeting; techniques of capital budgeting: discounted and non-discounted cash flow method; capital rationing, risk evaluation and sensitivity analysis; capital budgeting decision

UNIT: IV-Management of working capital (18 Hours)

Theories of working capital – Factors influencing working capital requirements - Management of cash, accounts receivables and inventory - Financing of working capital - Forecasting working capital requirement.

UNIT: V- Management of Earnings (18 Hours)

Dividend policies and decisions – Dividend policy in practice – Stable and fluctuating dividend policy – Factors influencing dividend policy - Dividend models

Teaching Methodology	Chalk and talk, PPT,
Assessment Methodology	Seminar, Snap Test, MCQ

Books for Study:

1. Dr. S. N. Maheswari - Management Accounting – Sulthan Chand & Company, New Delhi, 2022.
2. Prasanna Chandra, “Financial Management”, 8th Ed., Tata McGraw Hill India, New Delhi, 2011.

Books for Reference:

1. Khan and Jain, 2023 “Financial Management”, 7th Ed., Tata McGraw Hill India, New Delhi
2. Pandey I. M, 2022“Financial Management”, 11th Ed., Vikas publication, New Delhi,
3. Dr. Rustagi 2023, Basic Financial Mnagement, Sultan sund & Sons, New Delhi

Websites and eLearning Sources:

1. https://www.icai.org/post/sm-intermediate-paper6a
2. https://sist.sathyabama.ac.in/sist_coursematerial/uploads/SBAA5203.pdf
3. https://sde.uoc.ac.in/sites/default/files/sde_videos/Study_material_financial_mgmnt.pdf
4. https://www.icsi.edu/media/webmodules/Financial%20and%20Strategic%20Management.pdf
5. https://castudynotes.com/wp-content/uploads/2022/05/CA-Inter-FM-Study-Materials-May22-and-Nov22.pdf

Course Outcomes		
CO. No.	**CO- Statement**	**Cognitive Level (K- level)**
	On successful completion of this course, the students will be able to	
CO-1	Enlighten the basic concepts of financial management and application of time value money techniques in various types of investment.	**K1**
CO-2	Evaluate and create a solution for various investment proposal relating to the respective industries.	**K2**
CO-3	Understand and apply the appraisal methods of capital budgeting and analyze the cost of capital in investment.	**K3**
CO-4	Understand and evaluate the financing and dividend decisions.	**K4**
CO-5	Analyze the working capital requirements of business enterprises.	**K5**
CO-6	Apply the knowledge gained by analyzing the financial statements.	**K6**

Relationship matrix											
Semester	**Course Code**		**Title of the Course**						**Hours**		**Credits**
1	**25PCC1CC01**		**Core Course - 1:** Financial Management						**6**		**5**
Course Outcomes	**Programme Outcomes (PO)**					**Programme Specific Outcomes (PSO)**					**Mean Scores of Cos**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO-1	3	3	3	2	3	3	2	3	3	2	2.7
CO-2	3	3	3	2	2	3	3	3	2	2	2.6
CO-3	3	3	3	3	2	3	3	2	3	3	2.8
CO-4	3	3	2	3	2	3	3	2	3	2	2.6
CO-5	3	3	3	2	2	3	3	3	2	3	2.7
CO-6	3	3	3	3	3	3	3	2	3	2	2.8
Mean Overall Score											**2.7 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
1	25PCC1CC02	**Core Course – 2:** Digital Marketing	4	3

Course Objectives
To assess the evolution of digital marketing
To appraise the dimensions of online marketing mix
To infer the techniques of digital marketing
To analyse online consumer behaviour
To interpret data from social media and to evaluate game based marketing

UNIT I: Introduction to Digital Marketing (12 Hours)

Digital Marketing - Transition from traditional to digital marketing - Rise of internet - Growth of e- concepts - Growth of e-business to advanced e-commerce - Emergence of digital marketing as a tool - Digital marketing channels - Digital marketing applications, benefits and limitations - Factors for success of digital marketing - Emerging opportunities for digital marketing professionals.

UNIT II: Online marketing mix (12 Hours)

Online marketing mix - E-product - E-promotion - E-price - E-place - Consumer segmentation - Targeting - Positioning - Consumers and online shopping issues - Website characteristics affecting online purchase decisions.

UNIT III: Digital media channels (12 Hours)

Digital media channels - Search engine marketing - ePR - Affiliate marketing - Interactive display advertising - Opt-in-email marketing and mobile text messaging, Invasive marketing - Campaign management using - Facebook, Twitter, Corporate Blogs - Advantages and disadvantages of digital media channels - Metaverse marketing.

UNIT IV: Online consumer behavior (12 Hours)

Online consumer behavior - Cultural implications of key website characteristics - Dynamics of online consumer visit - Models of website visits - Web and consumer decision making process - Data base marketing - Electronic consumer relationship management - Goals - Process - Benefits - Role - Next generation CRM.

UNIT V: Analytics and Gamification (12 Hours)

Digital Analytics - Concept - Measurement framework - Demystifying web data - Owned social metrics- Measurement metrics for Facebook, Twitter, YouTube, Slide Share, Pinterest, Instagram, Snapchat and LinkedIn - Earned social media metrics - Digital brand analysis - Meaning - Benefits - Components - Brand share dimensions - Brand audience dimensions - Market influence analytics - Consumer generated media and opinion leaders - Peer review - Word of mouth - Influence analytics - Mining consumer generated media - Gamification and game based marketing - Benefits - Consumer motivation for playing online games.

Teaching Methodology	PPT, Videos and Demonstration models
Assessment Methodology	MCQs, seminar, snap test, open book test, group discussion

Books for Study:

1. Bhatia, P. S. (2019). *Fundamentals of Digital Marketing,* (2nd Ed.). Pearson Education Pvt Ltd.
2. Chaffey, D., & Ellis-Chadwick, F. (2019). *Digital Marketing*. Pearson Education Pvt Ltd.
3. Hemann, C., & Burbary, K. (2019). *Digital Marketing Analytics*. Pearson Education Pvt Ltd.
4. Gupta, S. (2022). *Digital Marketing,* (3rd Ed.). McGraw Hill Publications.
5. Upadhyay, K. C. (2021). *Digital Marketing: Complete Digital Marketing Tutorial*. Notion Press.

Books for Reference:

1. Ahuja, V. (2016). *Digital Marketing*. Oxford University Press.
2. Deiss, R., & Henneberry, R. (2017). *Digital Marketing*. John Wiley & Sons Inc. Hoboken.
3. Charlesworth, A. (2014). *Digital Marketing - A Practical Approach*. Routledge.
4. Kingsnorth, S. (2022). *Digital Marketing Strategy: An Integrated Approach to Online Marketing*. Kogan Page Ltd.
5. Moutusy, M. (2022). *Digital Marketing,* (2nd Ed.). Oxford University Press.

Websites and eLearning Sources:

1. https://www.digitalmarketer.com/digital-marketing/assets/pdf/ultimate-guide-todigital-marketing.pdf
2. https://uwaterloo.ca/centre-for-teaching-excellence/teaching- resources/teachingtips/educational-technologies/all/gamification-and-game-based-learning
3. https://journals.ala.org/index.php/ltr/article/download/6143/7938

Course Outcomes		
CO No.	**CO-Statements**	**Cognitive Levels (K-Level)**
	On Successful completion of this course the students will be able to	
CO1	Explain the dynamics of digital marketing	**K1**
CO2	Examine online marketing mix	**K2**
CO3	Compare digital media channels	**K3**
CO4	Interpret online consumer behavior	**K4**
CO5	Analyse social media data	**K5**
CO6	Design the Digital Branding and Marketing	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**						**Hours/Week**	**Credits**
1	**25PCC1CC02**			**Core Course – 2:** Digital Marketing						**4**	**3**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	3	2	1	3	2	3	2	3	**2.5**
CO2	2	3	3	2	2	2	3	2	1	3	**2.3**
CO3	3	2	3	2	2	3	2	2	2	2	**2.3**
CO4	3	3	2	2	2	3	3	3	2	3	**2.6**
CO5	2	3	3	2	1	3	3	2	2	3	**2.4**
CO6	2	3	3	2	1	3	3	2	2	3	**2.4**
										Mean Overall Score	**2.4 (High)**

Semester	Course Code	Title of the Course	Hours	Credits
1	25PCC1CP01	**Core Practical - 1:** Digital Marketing	4	2

Course Objectives
To assess the evolution of digital marketing
To appraise the dimensions of online marketing mix
To infer the techniques of digital marketing
To analyse online consumer behaviour
To interpret data from social media and to evaluate game based marketing

1. Digital Marketing Channels
2. Applications in Digital Marketing
3. SEO Marketing
4. Email Advertising
5. Online Marketing:
   E-Product, E-Promotion-Price, E-Place
6. Websites, online Shopping
7. Digital Media Channels:
   Facebook, Twitter, Corporate blogs
8. Mobile / Web Marketing
   YouTube, Slide share, Pinterest, Instagram, Snapchat, LinkedIn

Teaching Methodology	Practical Lab
Assessment Methodology	Viva voice examination

Books for study:

1. Puneet Singh Bhatia, (2019) "Fundamentals of Digital Marketing", 2nd Edition, Pearson Education Pvt Ltd, Noida.
2. Dave Chaffey, Fiona Ellis-Chadwick, (2019) "Digital Marketing", Pearson Education Pvt Ltd, Noida.
3. Chuck Hemann & Ken Burbary, (2019) "Digital Marketing Analytics", Pearson Education Pvt Ltd, Noida.
4. Seema Gupta, (2022) "Digital Marketing" 3rd Edition, McGraw Hill Publications Noida.
5. Kailash Chandra Upadhyay, (2021) "Digital Marketing: Complete Digital Marketing Tutorial", Notion Press, Chennai.
6. Michael Branding, (2021) "Digital Marketing", Empire Publications India Private Ltd, New Delhi.

Books for Reference:

1. VandanaAhuja, (2016) "Digital Marketing", Oxford University Press. London.
2. Ryan Deiss & Russ Henneberry, (2017) "Digital Marketing", John Wiley and Sons Inc. Hoboken.
3. Alan Charlesworth, (2014), "Digital Marketing - A Practical Approach", Routledge, London.
4. Simon Kingsnorth, Digital Marketing Strategy, (2022) "An Integrated approach to Online Marketing", Kogan Page Ltd. United Kingdom.
5. MaityMoutusy, (2022) "Digital Marketing" 2nd Edition, Oxford University Press, London.

Websites and eLearning Sources:

1. https://www.digitalmarketer.com/digital-marketing/assets/pdf/ultimate-guide-to-digital-marketing.pdf
2. https://uwaterloo.ca/centre-for-teaching-excellence/teaching-resources/teaching-tips/educational-technologies/all/gamification-and-game-based-learning
3. https://journals.ala.org/index.php/ltr/article/download/6143/7938

Course Outcomes		
CO. No.	**Course Statements**	**Cognitive Level (K- level)**
	On Successful completion of this course the students will be able to	
CO 1	Explain the dynamics of digital marketing	**K1**
CO 2	Examine online marketing mix	**K2**
CO 3	Compare digital media channels	**K3**
CO 4	Interpret online consumer behavior	**K4**
CO 5	Analyse social media data	**K5**
CO 6	Design the Digital Branding and Marketing	**K6**

Relationship matrix											
Semester	**Course Code**			**Title of the Course**						**Hours**	**Credits**
1	**25PCC1CP01**			**Core Practical - 1:** Digital Marketing						**4**	**2**
Course Outcomes (Cos)	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Scores Of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO-1	3	3	3	2	1	3	2	3	2	3	**2.5**
CO-2	2	3	3	2	2	2	3	2	1	3	**2.3**
CO-3	3	2	3	2	2	3	2	2	2	2	**2.3**
CO-4	3	3	2	2	2	3	3	3	2	3	**2.6**
CO-5	2	3	3	2	1	3	3	2	2	3	**2.4**
CO-6	2	3	3	2	1	3	3	2	2	3	**2.4**
										Mean overall Score	**2.4**

Semester	Course Code	Title of the Course	Hours	Credits
1	25PCC1CC03	**Core Course – 3:** Banking and Insurance	6	5

Course Objectives
To understand the evolution of new banking era
To explore the digital banking techniques
To analyse the role of insurance sectors
To evaluate the mechanism of customer service in insurance and the relevant regulations
To examine the risk and its impact on banking and insurance industry

UNIT I: Introduction to Banking (18 Hours)

Banking: Brief History of Banking - Rapid Transformation in Banking: Customer Shift – Fin tech Overview – Fin tech Outlook - The Financial Disruptors - Digital Financial Revolution - New Era of Banking Digital Banking – Electronic Payment Systems–Electronic Fund Transfer System – Electronic Credit and Debit Clearing – NEFT – RTGS –VSAT–SFMS–SWIFT. **indigenous banking practices such as Hundis, traditional moneylenders, and early banking institutions in India.**

UNIT II: Contemporary Developments in Banking (18 Hours)

Distributed Ledger Technology – Block chain: Meaning - Structure of Block Chain - Types of Block Chain - Differences between DLT and Block chain - Benefits of Block chain and DLT - Unlocking the potential of Block chain –Crypto currencies, Central Bank Digital Currency (CBDC) - Role of DLT in financial services - AI in Banking: Future of AI in Banking - Applications of AI in Banking - Importance of AI in banking - Banking reimagined with AI. Cloud banking - Meaning - Benefits in switching to Cloud Banking.

UNIT III: Indian Insurance Market (18 Hours)

History of Insurance in India – Definition and Functions of Insurance–Insurance Contract – Indian Insurance Market – Reforms in Insurance Sector – Insurance Organization – Insurance organization structure. Insurance Intermediaries: **traditional roles of community-based risk-sharing intermediaries** - Insurance Broker – Insurance Agent – Survey or sand Loss Assessors - Third Party Administrators (Health Services) – Procedures - Code of Conduct.

UNIT IV: Customer Services in Insurance (18 Hours)

Customer Service in Insurance – Quality of Service-Role of Insurance Agents in Customer Service-Agent's Communication and Customer Service –Ethical Behavior in Insurance – Grievance Redressal System in Insurance Sector –Integrated Grievance Management System-Insurance Ombudsman - Insurance Regulatory and Development Authority of India Act (IRDA) – Regulations and Guidelines.

UNIT V: Risk Management (18 Hours)

Risk Management and Control in banking and insurance industries – Methods of Risk Management – Risk Management by Individuals and Corporations – Tools for Controlling Risk. *Indian risk management techniques, such as collective savings (Chit funds), rural financial models, and community-driven risk-sharing practices.*

Teaching Methodology	Chalk and talk, Videos, PPT
Assessment methods	MCQs, seminar, snap test, open book test, group discussion

Books for Study:

1. Indian Institute of Banking and Finance (2021), "Principles & Practices of Banking", 5th Edition, Macmillan Education India Pvt. Ltd, Noida, Uttar Pradesh.
2. Mishra M N & Mishra S B, (2016), "Insurance Principles and Practice", 22nd Edition, S. Chand and Company Ltd, Noida, Uttar Pradesh.
3. Emmett, Vaughan, Therese Vaughan M., (2013), "Fundamentals of Risk and Insurance", 11th Edition, Wiley & Sons, New Jersey, USA.
4. Theo Lynn, John G. Mooney, Pierangelo Rosati, Mark Cummins (2018), Disrupting Finance: FinTech and Strategy in the 21st Century (Palgrave Studies in Digital Business & Enabling Technologies), Macmillan Publishers, NewYork (US)

Books for Reference:

1. Sundharam K P M & Varshney P. N., (2020), "Banking Theory, Law and Practice", 20th Edition, Sultan Chand & Sons, New Delhi.
2. Gordon & Natarajan, (2022), "Banking Theory, Law and Practice", 9th Edition, Himalaya Publishing House Pvt Ltd, Mumbai.
3. Gupta P. K. (2021), "Insurance and Risk Management" 6th Edition, Himalaya Publishing House Pvt Ltd, Mumbai.
4. Susanne Chishti., & Janos Barberis(2016), The Fintech book: The financial technology handbook for investors, entrepreneurs and visionaries. John Wiley & Sons.

Websites and eLearning Sources:

1. https://corporatefinanceinstitute.com/resources/knowledge/finance/fintech-financial-technology
2. https://mrcet.com/downloads/digital_notes/CSE/IV%20Year/CSE%20B.TECH%
3. 20IV%20YEAR%20II%20SEM%20BCT%20(R18A0534)%20NOTES%20Final%20
4. PDF.pdf
5. https://www.irdai.gov.in/ADMINCMS/cms/frmGeneral_Layout.aspx?page=Page
6. No108&flag=1

	Course outcomes	
CO No.	**CO –Statements**	**Cognitive Levels (K-level)**
	On successful completion of this course, students will be able to	
CO 1	Understand the transformations in the new banking era.	**K1**
CO 2	Acquire knowledge on the modern techniques of digital banking	**K2**
CO 3	Apply the reforms and grievance redressal in insurance sectors	**K3**
CO 4	Examine the regulatory mechanism	**K4**
CO 5	Assess risk mitigation strategies	**K5**
CO 6	Formulate the tools for controlling risks	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**						**Hours**	**Credits**
1	**25PCC1CC03**			**Core Course – 3:** Banking and Insurance						**6**	**5**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	2	2	2	3	3	2	2	2	**2.4**
CO2	2	2	3	2	3	2	3	2	2	2	**2.3**
CO3	2	2	3	2	3	2	3	2	3	2	**2.4**
CO4	3	2	3	2	2	2	3	2	2	2	**2.3**
CO5	3	3	2	2	2	2	3	3	1	2	**2.3**
CO6	2	3	3	2	3	2	3	2	2	2	**2.4**
										Mean Overall Score	**2.35 (High)**

Semester	Course Code	Title of the Course	Hours	Credits
1	25PCC1ES01A	**Discipline Specific Elective – 1:** Software Engineering	4	3

Course Objectives
To gain knowledge of various software development models.
To understand and analyze software requirement specifications for diverse projects.
To explain design concepts, analyze, and apply them to develop architectural, component-level, and user interface models while following best practices.
To apply various testing and debugging techniques for software evaluation.
To develop and maintain software efficiently.

UNIT I: INTRODUCTION TO SOFTWARE ENGINEERING (12 Hours)

Definition of Software Engineering-Importance of Software Engineering in Modern Development-Software Development Life Cycle (SDLC) Models: Waterfall Model-Incremental Model-Spiral Model-V-Model-Software Process and Process Models-Software Engineering Myths and Challenges

UNIT II: SOFTWARE REQUIREMENTS ENGINEERING (12 Hours)

Understanding User and System Requirements-Functional vs. Non-functional Requirements-Requirement Engineering Process: - Feasibility Study-Requirement Elicitation-Requirement Specification-Requirement Validation-Software Requirements Specification (SRS)
-Case Study on Software Requirements

UNIT III: SOFTWARE DESIGN & ARCHITECTURE (12 Hours)

Software Design Concepts: - Abstraction, Modularity, Cohesion, Coupling-Top-down and Bottom-up Design Approaches-Architectural Design: -Layered Architecture, Client-Server Architecture, Micro-Services-Software Design Principles: SOLID Principles-Object-Oriented Design (OOD)-UML Diagrams: Use Case, Class, Sequence, Activity Diagrams-User Interface (UI) and User Experience (UX) Design Principles

UNIT IV: SOFTWARE TESTING AND QUALITY ASSURANCE (12 Hours)

Importance of Software Testing- Testing Strategies-White Box Testing-Black Box Testing-Unit Testing, Integration Testing, System Testing--Regression Testing-Software Debugging Techniques-Software Quality Assurance (SQA) and Standards-ISO and CMMI Models for Software Quality-Case Study on Software Testing

UNIT V: SOFTWARE PROJECT MANAGEMENT & MAINTENANCE (12 Hours)

Software Project Planning-Effort Estimation Techniques (COCOMO Model, Function Point Analysis)-Risk Management in Software Engineering--Software Maintenance and its Types: Corrective, Adaptive, Perfective, Preventive Maintenance-Configuration Management-DevOps and Continuous Integration/Deployment (CI/CD)-Ethics in Software Engineering

Teaching Methodology	PPT, Video
Assessment Methods	SRS Preparation, Model Designing, Code Development, Debugging, Slip Test

Books for Study:

1. Roger S. Pressman, "Software Engineering: A Practitioner’s Approach", McGraw Hill,9th Edition,9355325045,9789355325044 ,2024
2. Roger Pressman and Bruce Maxim, Software Engineering: A Practitioner's Approach, 9th Edition ,2020, **ISBN10**: 1259872971 | **ISBN13:** 9781259872976
3. Ian Sommerville, "Software Engineering", 9th Edition,2011, Pearson Education., ISBN-13: 978-0-13-703515-1, ISBN-10: 0-13-703515-2,

Books for Reference:

1. Pankaj Jalote, "An Integrated Approach to Software Engineering", Springer.
2. Rajib Mall, "Fundamentals of Software Engineering", PHI Learning.

Websites and e learning sources:

1. SWAYAM/NPTEL: https://swayam.gov.in
2. Coursera: Software Engineering Fundamentals
3. Udemy: Software Development Lifecycle & Testing
4. Geeks for Geeks: Software Engineering Concepts
5. YouTube Channels:
6. Edureka (Software Engineering Full Course)
7. Simplilearn (Software Development Process)

CO. No	CO Statement	Cognitive Level (K- level)
CO1	Apply software engineering principles and models in real-world applications.	**K1**
CO2	Analyze and document software requirements effectively.	**K2**
CO3	Design and develop software solutions using appropriate models.	**K3**
CO4	Implement testing, debugging, and quality assurance techniques.	**K4**
CO5	Manage software projects and maintain systems efficiently.	**K5**
CO6	Create complete software models and projects.	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**				**Hours**			**Credits**
1	**25PCC1ES01A**			**Discipline Specific Elective – 1:** Software Engineering				**4**			**3**
Course Outcomes↓	**Programme Outcomes (PO)**					**Programme Specific Outcomes (PSO)**					**Mean Scores of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO-1	3	3	2	2	1	3	2	3	1	1	2.1
CO-2	3	1	3	1	1	3	2	3	1	2	2
CO-3	3	3	3	2	1	3	1	3	1	3	2.3
CO-4	3	1	3	3	2	3	2	3	1	2	2.3
CO-5	3	3	3	1	2	3	2	3	1	2	2.3
CO-6	3	2	2	1	2	2	3	3	2	1	2.1
										Mean Overall Score	2.2
											High

Semester	Course Code	Title of the Course	Hours	Credits
1	25PCC1ES01B	**Discipline Specific Elective - 1:** Strategic Human Resource Management	4	3

Course Objectives
To understand the role, importance, fundamental concepts and principles of SHRM in organizational success
To Formulate and develop HR strategies aligned with organizational objectives that are closely aligned with the overall business strategy.
To know the work force Utilization and Employment Practices
To identify the relevant environmental variables
To realize the methods of Integrating Human Resources in Strategic Decisions

UNIT – I: Strategic Management (12 Hours)

Nature and Significance; Dimensions of Strategic Decisions; Strategic Management Model and components; Strategy Formulation: Formulating a Company Mission; Forces Influencing the Strategy Formulation; Porter's Model.

UNIT – II: Environment Forecasting (12 Hours)

Analyzing the Company Profiles; Formulating Long-Term Objectives and Grand Strategies; Strategy Implementation; Institutionalizing the Strategy; Structure, Leadership and Culture, Evaluating the Strategy; Corporate Strategy and Global Strategy

UNIT–III: Human Resource Strategy (12 Hours)

Concept, Approaches, HRS and Business Strategy; Change Management Strategies, Training and Development Strategies; Organizational Performance and HRS: HRM Strategy and Difficulties in its implementation.

UNIT-IV: Strategic Human Resource Processes (12 Hours)

Work force Utilization and Employment Practices; Efficient Utilization of Human Resources; Dealing with employee shortages; selection of employees; Dealing with employee surpluses and special implementation challenges. Reward and development systems; Strategically Oriented Performance Management Systems; Strategically oriented compensation systems and employee development

UNIT – V: New Economic Policy and HRM Strategy (12 Hours)

Role of Human Resources in Strategy Formulation: Integrating Human Resources in Strategic Decisions; HRS and HRIS; Human Resource Strategy: Some Key Issues, HRM Strategies for Future.

Teaching Methodology	PPT, Videos, chalk and talk method
Assessment methods	MCQs, seminar, snap test, open book test, group discussion

Books for Study:

1. Human Resource Management, Dessler, Varkkey Gary, Biju, Pearson, 2020.
2. Strategic Human Resource Management, Jeffrey A. Mello, Cengage, 2019.
3. Strategic Human Resource Management, Rees, G., & Smith, P, SAGE Publications, 2021.
4. Human Resource Management (3rd Revised edition), Crawshaw, J., & Budhwar, P, SAGE Publications, 2017.
5. Gupta, A. D., Strategic Human Resource Management. Taylor & Francis, 2016

Books for Reference:

1. Human Resource Management, Gary Dessler, PHI, New Delhi, 2014.
2. Strategic Human Resource Management, Charles R. Greer, Pearson Education, 2017.
3. Managing Human Resources, Luis R. Gomez-Mejia, David B. Balkin, Robert L. Cardy, PHI, 2017.
4. International Human Resource Management, Peter J. Dowling, Denice E. Welch, Randall S. Schuler, Thomson South-Western, 2018.
5. Human Resource Management, Wayne Mondy, Pearson, 2017

Websites and e learning sources:

1. 1.https://www.mygreatlearning.com/academy/learn-for-free/courses/human-resourcemanagement
2. https://alison.com/course/strategic-human-resource-management-and-development
3. 3.https://www.oxfordhomestudy.com/courses/hr-courses-online/free-online-hr-courses-withcertificates
4. https://www.udemy.com/course/crash-course-in-hrm/
5. 5.https://www.open.edu/openlearn/money-business/what-strategic-human resourcemanagement/content-section-0

Course Outcomes		
CO No.	**CO-Statements**	**Cognitive Levels (K-Level)**
	On successful completion of this course, the students will be able to	
CO1	Analyze, evaluate the strategic role of HRM and its importance within an organization.	**K1**
CO2	Assess the global human resources environment in which the organization operates.	**K2**
CO3	Forecast the human resource strategic needs of the organization	**K3**
CO4	Perform job analysis and relation practices of the organization.	**K4**
CO5	Identify competency gaps in the organization.	**K5**
CO6	Evaluate work force and utilize the human resource	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**					**Hours**		**Credits**
1	**25PCC1ES01B**			**Discipline Specific Elective - 1:** Strategic Human Resource Management					**4**		**3**
Course Outcomes↓	**Programme Outcomes (PO)**					**Programme Specific Outcomes (PSO)**					**Mean Scores of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	2	2	2	2	2	2	2	2	2	2	2.0
CO2	2	3	2	2	2	2	3	2	2	2	2.4
CO3	2	2	3	3	2	3	3	2	2	2	2.5
CO4	3	3	2	3	3	3	2	3	3	3	2.7
CO5	3	3	3	3	3	3	3	3	3	3	3.0
CO6	3	2	2	3	3	3	2	2	2	3	2.5
Mean Overall Score											**2.5 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
1	25PCC1AE01	**Ability Enhancement Course:** Advanced Excel (Practical)	2	1

Course Objectives
To know the Statistical concepts using functions
To learn how to compute large amount of data quickly using data analysis tools
To gain knowledge on data visualization in problem solving
To understand the concept of Macros
To acquire knowledge and skills on VBA

Exercises

1. Text and Statistical Functions
2. Nested Control Structures
3. Data consolidation
4. Sorting and Advanced Filters
5. VLOOKUP function
6. Data Tables - What -IF analysis
7. PIVOT Table creation and Report generation
8. Creation and manipulation of Gantt Chart
9. Macros
10. VBA

Teaching Methodology	Lab demonstration
Assessment Methodology	Practical examination

Books for Study:

1. Mehta, M. S. (2021). *Microsoft Excel Professional 2021 guide*. BPB Publications.

Books for Reference:

1. Alexander, M. & Walkenbach, J. (2022). *Microsoft Excel Dashboards and Reports,* (2nd Ed.). Wiley India Pvt. Ltd.
2. McFedries, P. & Harvey, G. (2021). *Excel all-in-one for Dummies,* (2nd Ed.). Wiley India Pvt. Ltd.
3. Nigam, M. (2019). *Data Analysis with Excel,* (2nd Ed.). BPB Publications.

Websites and eLearning Sources:

1. https://www.goskills.com/Excel
2. https://www.udemy.com/course/microsoft-excel-2013-from-beginner-to-advancedand-beyond
3. https://www.coursera.org/learn/excel-basics-data-analysis-ibm?

Course Outcomes		
CO No.	**CO-Statements** On Successful completion of this course the students will be able to	**Cognitive Levels (K-Level)**
CO1	Identify different Statistical methods for solving problems	**K1**
CO2	Understand the Data analysis methods for extracting data	**K2**
CO3	Apply advanced filters in table, and present it in visual form	**K3**
CO4	Analyse the problem through Data Consolidation and Grouping	**K4**
CO5	Evaluate the problem by applying Data tools	**K5**
CO6	Create and run VBA codes	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**						**Hours/Week**	**Credits**
1	**25PCC1AE01**			**Ability Enhancement Course:** Advanced Excel (Practical)						**2**	**1**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	2	1	1	2	3	2	2	2	3	3	**2.1**
CO2	2	3	1	2	2	2	3	3	2	2	**2.2**
CO3	1	2	3	2	3	2	3	3	2	2	**2.3**
CO4	2	2	2	3	3	3	3	3	2	2	**2.5**
CO5	2	2	3	2	2	2	3	3	3	2	**2.4**
CO6	2	3	3	3	2	3	3	3	3	2	**2.7**
Mean Overall Score											**2.3 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
1	25PCC1OE01	**Open Elective - 1 (WS):** Financial Planning and Wealth Management	4	2

Course Objectives
To identify the process of financial planning and its implementation related to individual
To know the importance of investment planning and types of investment planning.
To understand the fundamentals of wealth management.
To know about the digital wealth management.
To understand behavioral finance in wealth management

UNIT-I: Introduction of Financial Planning (12 Hours)

Financial Planning: Meaning, Role of Financial Planner, Financial Planning Process, Client Data Collection, Client Data Analysis, Life Cycle, Wealth Cycle, Risk Profiling and Asset Allocation – Case study.

UNIT-II: Investments (12 Hours)

Meaning, Objectives, reward of investing, determination of amount of investment, securities market- types of securities, investment decisions, managing investment portfolio. Investing in Bonds, real estate, and gold – Case study.

UNIT-III: Introduction to Wealth Management (12 Hours)

Definition and Scope of Wealth Management – Role of a Wealth Manager – Difference Between - Wealth Management and Financial Planning – Ethical and Regulatory Aspects - Wealth Creation & Wealth Protection – Case study.

UNIT-IV Digital Wealth Management: (12 Hours)

Robo-Advisors & AI in Wealth Management – Block chain & Crypto currencies – Digital Investment Platforms – Future Trends in Wealth Tech – Case study.

UNIT-V: Behavioral Finance (12 Hours)

Introduction – Prospect Theory – Herd Behaviour – Anchoring and Contrarian Investing – Mental Accounting and Gambler's Fallacy – Value Investing and Behavioural Finance – Emotions in Financial Decision Making – Skewness of Asset Allocation due to Bias – Basic Investment Style and its Drawbacks – Case study.

Teaching Methodology	PPT, Videos and Case Studies
Assessment Methods	MCQ, GD, Seminar, Open book test, Group Project

Books for Study:

1. Murali & Subbukrishna (2018), *Personal Financial Planning*, Himalaya Publishing House, New Delhi.
2. Dun & Bradstreet (2017), *Wealth Management*, McGraw Hill Education, Delhi, ISBN-13: 978-0316510776.
3. Sinha (2017), *Financial Planning: A Ready Recknor*, McGraw Hill Publishing House, New Delhi.
4. Indian Institute of Banking & Finance (2017), *IIBF's Introduction to Financial Planning – Systematic and Comprehensive Overview of Financial Planning with Emphasis on 'Elements of Financial Planning' & 'Elements of Creating a Financial Plan'*, Taxmann Publications Pvt. Ltd.; 4th Edition, Delhi, ISBN-13: 978-9386394552.
5. IIBF (2023), *Retail Banking & wealth management,* Macmillan; First Edition, ISBN-13: 978-9356660342.
6. Murali. & Subbakrishna (2018), *Personal Financial Planning (Wealth Management),*
7. Himalaya Publishing House Pvt. Ltd, ISBN-13: 978-9352739608.

Books for Reference:

1. Joydeep Sen (2020), *Financial Planning & Wealth Management: Concepts and Practice*, Shroff Publishers, India. ISBN-13: 978-9385889325.

2. Jack Alexander (2018), *Financial Planning & Analysis and Performance Management*, Wiley Publication, 1st edition, India, ISBN-13: 978-111949148.
3. Mitra, Sid (2019), *Financial Planning: Theory and Practice*, SAGE Texts ISBN-10 9351502503.
4. G. Victor Hallman, Jerry S. Rosen bloom (2016): *Private Wealth Management-The Complete Reference for the Personal Financial Planner*; Tata McGraw-Hill, Delhi.
5. Balaji Rao DG (2012), *Wealth Management & Financial Planning: Concepts & Practices*, Partridge Publishing India, India.
6. 6. Justin Reed (2022), *14 Laws of Power in Financial Planning, Money Management and Wealth Creation: Financial planning books for beginners| Retirement Planning Guidebook| Wealth Money Management and Wealth Creation)*, ASIN : Kindle Edition.

Websites and eLearning Sources:

1. https://www.bdu.ac.in/cde/SLM/MBA/MBA%20IV%20Semester/ELECTIVES/FINANCE/Wealth%20Management.pdf
2. https://www.slideshare.net/slideshow/wealth-management-and-financial-planning-249869805/249869805.
3. https://www.distanceeducationju.in/studymaterial/fe454.pdf.

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, the students will be able to	**Cognitive Levels (K-Level)**
CO1	Students learn about the financial planning process, which consists of the time value of money, client interactions, education planning, general principles for future planning.	**K1**
CO2	Students learn about the right investment strategies that can be recommended to clients.	**K2**
CO3	Students learn the importance of retirement planning	**K3**
CO4	Understand the fundamentals of wealth management and **FinTech Innovations**	**K4**
CO5	Understand behavioural finance in wealth management.	**K5**
CO6	Understand overall financial planning and wealth management.	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**				**Hours/Week**			**Credits**
1	**25PCC1OE01**			**Open Elective – 1 (WS):** Financial Planning and Wealth Management				**4**			**2**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	2	2	3	2	3	3	2	2	3	**2.5**
CO2	2	3	2	1	2	3	3	2	2	3	**2.3**
CO3	2	2	3	2	3	2	3	2	3	2	**2.4**
CO4	1	2	2	3	1	2	3	2	2	3	**2.1**
CO5	2	2	2	2	3	1	3	2	2	3	**2.2**
CO6	2	2	2	2	3	1	3	2	2	3	**2.2**
									Mean Overall Score		**2.3 (High)**

Semester	Course Code	Title of the Course	Hours/ Weeks	Credits
1	25PGC1SL01	Global Citizenship Education	Online	1

Course Objectives
To develop an understanding of global governance structures, rights and responsibilities.
To recognize and respect differences, multiple identities and diversity.
To examine beliefs and perceptions about social justice, equality and civic engagement.
To develop attitudes of care and empathy for others and the environment.
To develop global competence and ethical considerations by enhancing communication and collaboration skills across cultures

UNIT I: Introduction to Global Citizenship

01. Historical and Philosophical Foundations of Global Citizenship
02 Rights and Responsibilities of Global Citizenship
03. Key Organizations and Movements Promoting Global Citizenship

UNIT II: Globalization and Its Impact on Society

04. Globalization and Its Key Drivers
05. Positive and Negative Impacts of Globalization
06. Role of Education in Fostering a Global Perspective

UNIT III: Human Rights, Social Justice, Equality and Diversity

07. Key Human Rights Treaties, Frameworks and Declarations
08. Advocacy, Activism, and Movements for Social Justice and Equality
09. Global Challenges to Human Rights, Equality and Diversity

UNIT IV: Sustainable Development and Environmental Responsibility

10. The Sustainable Development Goals and Their Relevance to Global Citizenship
11. Climate Change, Environmental Degradation and Sustainable Development
12. Strategies for Promoting Environmental Responsibility

UNIT V: Building Global Competence and Engagement

13. Effective Communication and Collaboration Across Cultures
14. Volunteering and Community Engagement in Global Initiatives
15. Ethical Considerations in Global Citizenship

Teaching Methodology	Recorded Lectures/Videos, Reading Materials, PPTs, Case Studies, Collaborative Projects, Quizzes and Polls
Assessment Methods	Seminars, Assignments, MCQs, Reflection Essays, Group Project Presentations, Problem-Solving Scenarios

Books for Study:

1. Clapham, A. (2007). *Human rights: A very short introduction.* Oxford University Press.
2. Desai, A. (2018). *Global citizenship and cultural diplomacy: India's role in a changing world*. Routledge India.
3. Gould, J. A. (2012). *The ethics of global citizenship*. Routledge.
4. Held, D., et al. (2022). *Globalization and its impact on the developing world*. Cambridge University Press.
5. Sen, A. (2009). *The idea of justice*. Penguin Books India.

Books for Reference:

1. Ghosh, A. (2007). *The global impact of Indian civilization*. HarperCollins India.
2. Krecker, E. (2008). *The global citizen: A guide to creating an international life and career*. Career Press.
3. Kumar, R. (2017). *Sustainable development and environmental justice in India*. Oxford University Press.
4. Nair, K. G. (2014). *Human rights: A socio-political perspective*. Orient Blackswan.

5. Patel, V. (2015). *Social justice and equality in India: Theories and practices*. Oxford University Press.
6. Pillai, V. (2016). *Globalization and its impact on Indian society*. SAGE Publications India.

Websites and eLearning Sources:

1. https://www.unesco.org/en/global-citizenship-peace-education/need-know
2. TEDxCincinnati: Global Citizenship in the Classroom: Jenny Buccos at TEDxCincinnati https://www.youtube.com/watch?v=6jjLHmyBs7o
3. Social justice -- is it still relevant in the 21st century? | Charles L. Robbins | TEDxSBU https://www.youtube.com/watch?v=Wtroop739uU
4. Are We the Last Generation — or the First Sustainable One? | Hannah Ritchie | TED https://www.youtube.com/watch?v=Kl3VVrggKz4
5. Diversity, Equity & Inclusion. Learning how to get it right | Asif Sadiq | TEDxCroydon https://www.youtube.com/watch?v=HR4wz1b54hw

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, students will be able to	**Cognitive Levels (K-Level)**
CO1	Recall the historical, philosophical and practical foundations of global citizenship.	**K1**
CO2	Explain the key drivers of globalization and the role of education in fostering a global perspective.	**K2**
CO3	Apply human rights frameworks, social justice principles, and advocacy strategies to real-world challenges.	**K3**
CO4	Analyze the relevance of the Sustainable Development Goals in addressing climate change and environmental degradation.	**K4**
CO5	Develop strategies for fostering global competence by enhancing communication and collaboration skills across cultures.	**K5**
CO6	Critically evaluate the effectiveness of current global strategies and policies in addressing social justice and environmental sustainability.	**K6**

Semester	Course Code	Title of the Course	Hours	Credits
2	25PCC2CC04	**Core Course – 4:** Managerial Skills (Internship Embedded Course)	5	3

Course Objectives
To understand the concept of managerial personnel
To analyze the managerial problems in an organization
To develop the various skills required for the managerial personnel
To negotiate the socio and psychological problems in an organization
To learn inter personal skills

UNIT I: Strategic Thinking (15 Hours)

Strategic thinking – Concepts– Need - Process - Meaning –competencies – importance- Lateral Thinking – Concepts-Need– Applications– Benefits– Techniques used in Lateral Thinking –Conventional Vs Lateral Leaders.

UNIT II: Conflict management (15 Hours)

Conflict Resolution – Concepts – sources of conflict – role of perception in conflict – steps of Conflict Resolution – Conflict handling matrix – Functional and Dysfunctional outcome of conflict. Negotiation skills – process – styles – outcome – principles – negotiation model – being a negotiator – qualities of a negotiator. Level V leader-Becoming a level V leader – attributes of level V leader – the level V hierarchy.

UNIT III: Change management and Internship (15 Hours)

Change - Concepts - Facing changes – meaning – characteristics –why changes – impact of resistance – Reasons for resistance – types of people in facing changes – introducing change. Facing challenges – meaning – importance – path to facing challenges – benefits of facing challenges- internship: intern- importance- process of internship – report writing

UNIT IV: Risk taking management and corporate mentoring (15 Hours)

Risk taking - meaning - factors determining Risk Taking – Risk management - users of Risk Management - Steps in Risk Management. Effective decision making – meaning – approaches – methods – steps – Decision making at the work place. Corporate Mentoring – from mentors perspective – from mentees perspective – mentoring Vs Coaching – mentoring techniques – types of mentoring – mentoring traits – mentoring programme.

UNIT – V: Motivation and inter personal skills (15 Hours)

Motivation and staying motivated – meaning – finding reason for being motivated – staying motivated at work place – staying motivated in negative work environment – staying motivated during crisis. inter personal skills

Teaching Methodology	Black Board, PPT
Assessment methods	Assignment, group discussion and seminar and case study

Books for study:

1. K. Alex, (2013), 'Managerial skills', Person Publication, New Delhi.2013
2. Stephen covey ()., 'The Seven Habits of Highly Effective people

Books for Reference:

1. Daniel Goleman (2009), 'Emotional Quotient'
2. Norman Vincent Peale (2018), 'Power of the Plus factor'

Websites and E Learning Sources:

1. https://www.pfh.de/en/blog/three-types-managerial-skills
2. https://www.coursera.org/enterprise/articles/essential-managerial-skills
3. https://www.betterup.com/blog/functions-of-management

Course Outcomes		
CO No.	**CO-Statements**	**Cognitive Levels (K-Level)**
	On successful completion of the course, the students will be able to	
CO1	Recognize the skills and enable to use the skills in organizations.	**K1**
CO2	Infer in strengthening the bond between people.	**K2**
CO3	Articulate in accelerating the decision-making process.	**K3**
CO4	Understand the importance of internship.	**K4**
CO5	Reframe the willingness to execute duties in an organization.	**K5**
CO6	Develop interpersonal skills and balance between work and life.	**K6**

Relationship matrix											
Semester	**Course Code**			**Title of the Course**					**Hours**		**Credits**
2	**25PCC2CC04**			**Core Course – 4:** Managerial Skills (Internship Embedded Course)					**5**		**3**
Course Outcomes	**Programme Outcomes (PO)**					**Programme Specific Outcomes (PSO)**					**Mean Scores of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO-1	3	2	2	2	2	3	3	2	2	3	2.4
CO-2	2	3	2	2	2	3	3	2	2	3	2.4
CO-3	2	2	3	2	3	2	3	2	3	3	2.5
CO-4	2	2	2	3	2	2	3	2	2	3	2.3
CO-5	2	2	2	2	3	2	3	2	2	3	2.3
CO-6	2	3	3	2	3	2	3	2	2	2	2.4
										Mean Overall Score	2.38 **(High)**

Semester	Course Code	Title of the Course	Hours	Credits
2	25PCC2CC05	**Core Course – 5:** Cost Accounting Techniques	6	5

Course Objectives
To enlighten the concepts of cost accounting techniques.
To get the knowledge in Standard Costing and Variance analysis
To allocate the overheads to various departments under primary and secondary distribution systems and to compute the machine hour rate
To have through knowledge on the practical application of process costing.
To apply the contract Costing, Service and Operating costing in the respective industries.

UNIT I: **Contract Costing** **(18 Hours)**

Introduction – Features - profit or loss on contracts – work certified- work uncertified – Retention money – work-in-progress- Escalation clause – Cost plus contract.

UNIT II: **JOB, BATCH AND PROCESS COSTING** **(18 Hours)**

Introduction - Meaning - Features of Job Order Costing -Objectives of Job Order Costing - Pre- requisite for Job Order Costing -- Advantages and Disadvantages of Job Order Costing -Procedure for Job Order Cost System; Batch Costing -Meaning - Features -- Determination -Difference between Job Costing and Batch Costing - Advantages and Disadvantages - Problems and Solutions; Process Costing - Meaning - Application of Process Costing - Job Costing Vs Process Costing - Calculation of Normal Process Loss and Abnormal Process Loss - Procedure for Preparation of Process Costing

UNIT III: **Operating and Service Costing** **(18 Hours)**

Meaning - Cost Unit – Characteristics - Transport Costing - Power House Costing - Hospital Costing - Canteen Costing – Costing for cinema theatres - Cost Accounting Standard (CAS – 1 to 24).

UNIT IV: **Standard Costing and Variance analysis** **(18 Hours)**

Standard Costing – Advantage and Limitations of standard costing – Standard Hour – Standard cost card – Variance analysis –Relevance of standard cost for variance analysis – Significance of variance analysis – Computation of Material Variances – Labour Variances – Overhead Variances – Sales Variances

UNIT V: Marginal Costing **(18 Hours)**

Resource Optimization and Cost Control in Ancient India-Break-Even Analysis in Ancient Indian Trade-Break-even Point – Profit Volume Ratio – Advantages and Limitations of Marginal Costing - Cost volume profit analysis – Computation of PV Ratio and Break Even Point - Make or Buy Decision - Margin of Safety – Effect of Change of sale price on overall BEP – Effect of change in product mix on BEP and PV Ratio

THEORY 20% & PROBLEM 80%

Teaching Methodology	Chalk and talk, PPT, video lecture
Assessment Methods	Seminar, Test, MCQ, online test and online assignment

Books for Study:

1. S.P. Jain & K.L. Narang: 2024, Cost accounting - Kalyani Publication- New Delhi
2. M.C Shukla,T. S Grewal and Dr. M.P Gupta , 2020 Cost Accounting Text and Problems, S. Chand Publisher, Revised Edition

Books for Reference:

1. K. Alex, 2015, Cost Accounting, Pearson Publication, New Delhi
2. A Moorthy and S. Gurusamy- 2024Cost accounting- Vijay Nicole Imprints
3. Private Limited Publication, - Chennai-
4. M. N. Arora, 2016 Cost and Management Accounting Problem and Solution, Himalaya Publishers
5. T.S. Reddy & Hari Prasad Reddy - Cost and Management Accounting, Margham Publications, Chennai

Websites and eLearning Sources:

1. https://www.icai.org/post/17759

2. https://icmai.in/studentswebsite/Syl-2022-Inter-Stdy-Mtrls.php
3. https://tndalu.ac.in/econtent/14_Cost_And_Management_Study_Material.pdf
4. https://onlinecourses.nptel.ac.in/noc24_mg114/preview
5. https://www.icsi.edu/WebModules/Publications/FULL_BOOK_PP-CMA-2017-JULY_4.pdf

Course Outcomes		
CO. No.	**CO- Statements**	**Cognitive Level (K- level)**
	On successful completion of the course, the students will be able to	
CO-1	Gain knowledge on cost accounting techniques	**K1**
CO-2	Understand cost accounting techniques and process.	**K2**
CO-3	Apply Cost accounting techniques in real time situation	**K3**
CO-4	Analyse the various cost accounting tools in relation to material, labour, overheads, marginal costing and standard costing	**K4**
CO-5	Evaluate the material, labour and overheads cost under different methods and marginal costing and standard costing	**K5**
CO-6	Create the cost accounting techniques to the industries	**K6**

Relationship matrix											
Semester	**Course Code**			**Title of the Course**						**Hours**	**Credits**
2	**25PCC2CC05**			**Core Course – 5:** Cost Accounting Techniques						**6**	**5**
Course Outcomes	**Programme Outcomes (PO)**					**Programme Specific Outcomes (PSO)**					**Mean Scores of Cos**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO-1	3	3	3	2	3	3	2	3	3	2	**2.7**
CO-2	3	3	3	2	2	3	3	3	2	2	**2.6**
CO-3	3	3	3	3	2	3	3	2	3	3	**2.8**
CO-4	3	3	2	3	2	3	3	2	3	2	**2.6**
CO-5	3	3	3	2	2	3	3	3	2	3	**2.7**
CO-6	3	3	3	3	3	3	3	2	3	2	**2.8**
Mean Overall Score											**2.7 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
2	25PCC2CC06	**Core course - 6:** Operations Research	5	3

Course Objectives
To understand the concepts of operations research.
To acquire knowledge of Queuing methods and Game theory.
To analyse the solution to the Decision problems.
To evaluate the problems of Assignment and Transportation.
To frame the networks based on CPM and PERT.

UNIT I: OR Concepts and Linear Programming Problem (15 Hours)

Operation research: Origin and nature- OR as a tool for decision-making; OR and management; features-phases -models - methods of deriving solution -Applications: Linear programming formulation of LPP; graphic solutions.

UNIT II: Assignment and Transportation (15 Hours)

Formulation. Hungarian method for optimal solution, solving unbalanced problem, Traveling salesman problem and assignment problem Transportation: Formulation, solution, unbalanced Transportation problem. Finding basic feasible solutions - Northwest corner rule, least cost method and Vogel's approximation method.

UNIT III: Decision theory (15 Hours)

Basic concepts: quantitative approach to managerial decision-making; Decision-making under certainty-decision making under uncertainty-Maximax- minimax - maximin- Laplace- Hurwicz. Decision-making under risk-EMV- EOL- EVPI- Decision making under competition- Decision tree analysis

UNIT IV: Network analysis (15 Hours)

CPM and PERT: construction of network diagrams; network calculation; concept of float; probability consideration in PERT; calculation of float under PERT; distinction Between CPM and PERT; limitations of PERT.

UNIT V: Simulation (15 Hours)

Basic concepts - Monte Carlo simulation - Game Theory: Competitive games, rectangular games, saddle point, minimax (maximin) method of optimal strategies, value of the game. Solution of games with saddle points, dominance principle.

THEORY 20% & PROBLEM 80%

Teaching Methodology	Black Board, PPT
Assessment Methods	Seminar, Test, MCQ, online test and online assignment

Books for Study:

1. Kapoor, V.K., & Kapoor, S. (2022). *OR Techniques for Management.* (9th Ed.). Sultan Chand & Sons.

Books for Reference:

1. Sharma S.D., (2020). *Operations Research,* Kedar Nath Ram Nath & Co.
2. Hira, D.S. & Gupta, P. K. (2012). *Introduction to Operations Research.* S. Chand publishers.
3. Taha, H. A. (2019). *Operations Research - An Introduction (10th Ed.)*. Prentice Hall.

Websites and e learning source:

1. https://en.wikipedia.org/wiki/Operations_research
2. https://pubsonline.informs.org/journal/opre
3. https://www.tandfonline.com/doi/full/10.1080/01605682.2023.2253852

Course Outcomes		
CO No.	**CO-Statements**	**Cognitive Levels (K- Level)**
	On successful completion of this course, students will be able to	
CO1	Know and understand the concepts of operations research, LPP, Assignment and Transportation Decision problems, Network analysis and Game theory.	**K1**
CO2	Acquire knowledge on LPP, Assignment and Transportation Decision problems, Network analysis and Game theory.	**K2**
CO3	Solve the problems as with mathematical models.	**K3**
CO4	Analyse the solution for the Assignment and Transportation Decision problems, Network analysis and Game theory.	**K4**
CO5	Evaluate the problems of Assignment and Transportation CPM, PERT and Game theory.	**K5**
CO6	Frame the networks based on CPM and PERT.	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**				**Hours/Week**		**Credits**	
2	**25PCC2CC06**			**Core Course - 6:** Operations Research				**5**		**3**	
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Scores of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	3	2	1	3	2	3	2	3	**2.5**
CO2	2	3	3	2	2	2	3	2	1	3	**2.3**
CO3	3	2	3	2	2	3	2	2	2	2	**2.3**
CO4	3	3	2	2	2	3	3	3	2	3	**2.6**
CO5	2	3	3	2	1	3	3	2	2	3	**2.4**
CO6	2	3	3	2	1	3	3	2	2	3	**2.4**
										Mean Overall Score	**2.4 (High)**

Semester	Course Code	Title of the Course	Hours	Credits
2	25PCC2CC07	**Core Course – 7:** Python Programming	3	3

Course Objectives
To understand the structure of a Python program and its execution process.
To demonstrate the use of variables, operators, and expressions.
To explain and implement Decision making statements.
To define and call functions, including built-in and user-defined functions.
To explain the purpose and use of Python modules, packages and file.

UNIT I: Introduction (9 Hours)

Features of Python - How to Run Python - Identifiers- Reserved Keywords - Variables - Comments in Python - Indentation in Python - Multi-Line Statements - Multiple Statement Group (Suite)

UNIT II: Functions (9 Hours)

Input, Output and Import Functions - Operators. Data Types and Operations: Numbers – Strings – List – Tuple – Set – Dictionary – Data type conversion.

UNIT III: Decision Making Functions (9 Hours)

Decision Making – Loops – Nested Loops – Types of Loops. Functions: Function Definition – Function Calling - Function Arguments -Recursive Functions - Function with more than one return value.

UNIT IV: Modules (9 Hours)

Built-in Modules - Creating Modules – import Statement - Locating Modules - Namespaces and Scope - The dir() function- The reload() function-Packages in Python-Date and Time Modules.

UNIT V: Directories in Python (9 Hours)

File Handling: Opening a File - Closing a File - Writing to a File - Reading from a File - File Methods - Renaming a File - Deleting a File - Directories in Python.

Teaching Methodology	Videos, PPT, Demonstration, Hands on Session and Lecture Methods.
Assessment Methods	MCQ, designing program, debugging

Books for Study:

1. Jeeva Jose and P. SojanLal (2016), "Introduction to Computing and Problem Solving with PYTHON", Khanna Book Publishing Co. (P) Ltd., New Delhi.
2. Thareja, R. (2017). Python programming using problem solving approach, (1st Ed.). Oxford University Press.
3. Rao,N.R.(2017).*Core Python programming,*(1stEd.).Dream tech Publishers.

Books for Reference:

1. Kurama, V. (2018). *Python programming: A modern approach*. Pearson Education.
2. Lambert, K. A. (2017). *Fundamentals of Python-First programs*. Cengage Publication.

Websites and eLearning Sources:

1. https://www.programiz.com/python-programming
2. https://www.guru99.com/python-tutorials.html
3. https://www.w3schools.com/python/python_intro.asp
4. https://www.geeksforgeeks.org/python-programming-language/
5. https://en.wikipedia.org/wiki/Python_(programming_language)

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, the students will be able to	**Cognitive Levels (K-Level)**
CO1	Understand the syntax, semantics, and structure of Python programs.	**K1**
CO2	Demonstrate the ability to write and execute Python scripts effectively.	**K2**
CO3	Differentiate between Python's built-in data structures	**K3**
CO4	Analyze different Decision Making statements and Functions	**K4**
CO5	Describe how to use and import Python modules and libraries.	**K5**
CO6	Develop the Scripts using Files and Directories	**K6**

Relationship Matrix												
Semester	**Course Code**			**Title of the Course**						**Hours**		**Credits**
2	**25PCC2CC07**			**Core Course – 7:** Python Programming						**3**		**3**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Scores of COs**	
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**		
CO1	3	3	2	1	2	3	3	2	1	2	**2.2**	
CO2	2	3	3	2	1	3	3	3	2	2	**2.4**	
CO3	2	3	3	2	2	2	3	3	2	2	**2.4**	
CO4	3	3	3	1	2	3	3	3	2	3	**2.6**	
CO5	2	3	3	1	2	2	3	3	2	1	**2.3**	
CO6	3	3	2	1	2	3	2	2	2	3	**2.3**	
Average	2.5	3	2.6	1.3	1.8	2.6	2.8	2.6	1.8	2.2	**2.36 (High)**	

Semester	Course Code	Title of the Course	Hours/Week	Credits
2	25PCC2CP02	**Core Practical - 2:** Python Programming	3	2

Course Objectives
To understand the structure of a Python program and its execution process.
To demonstrate the use of variables, operators, and expressions.
To explain and implement Decision making statements.
To define and call functions, including built-in and user-defined functions.
To explain the purpose and use of Python modules.

List of Exercises:

1. write a simple program using variables
2. write a program to implement operators
3. write a program to implement various data structures
4. write a program using Conditional Statements
5. write a program using Loops
6. write a program using Jump Statements
7. write a program using Functions and Recursion
8. write a program using Arrays
9. write a program using Strings
10. write a program using Modules

Teaching Methodology	Videos, PPT, Demonstration, Hands on Session and Lecture Methods.
Assessment Methodology	Practical examination

Books for Study:

1. Jeeva Jose and P. SojanLal (2016), "Introduction to Computing and Problem Solving with PYTHON", Khanna Book Publishing Co. (P) Ltd., New Delhi.
2. Thareja, R. (2017). Python programming using problem solving approach, (1st Ed.). Oxford University Press.
3. Rao,N.R.(2017).*Core Python programming,*(1stEd.).Dream tech Publishers.

Books for Reference:

1. Kurama, V. (2018). Python programming: A modern approach. Pearson Education.
2. Lambert, K. A. (2017). Fundamentals of Python-First programs. Cengage Publication.

Websites and eLearning Sources:

1. https://www.programiz.com/python-programming
2. https://www.guru99.com/python-tutorials.html
3. https://www.w3schools.com/python/python_intro.asp
4. https://www.geeksforgeeks.org/python-programming-language/
5. https://en.wikipedia.org/wiki/Python_(programming_language)

Course Outcomes		
CO No.	**CO-Statements**	**Cognitive Levels (K-Level)**
	On successful completion of this course, the students will be able to	
CO1	Understand the syntax, semantics, and structure of Python programs.	**K1**
CO2	Demonstrate the ability to write and execute Python scripts effectively.	**K2**
CO3	Differentiate between Python's built-in data structures	**K3**
CO4	Analyze different Decision Making statements and Functions	**K4**
CO5	Describe how to use and import Python modules and libraries.	**K5**
CO6	Develop the Scripts using Files and Directories	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**					**Hours**		**Credits**
2	**25PCC2CP02**			**Core Practical - 2:** Python Programming					**3**		**2**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Scores of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	2	1	2	3	3	2	1	2	2.2
CO2	2	3	3	2	1	3	3	3	2	2	2.4
CO3	2	3	3	2	2	2	3	3	2	2	2.4
CO4	3	3	3	1	2	3	3	3	2	3	2.6
CO5	2	3	3	1	2	2	3	3	2	1	2.3
CO6	3	3	2	1	2	3	2	2	2	3	2.3
Average	2.5	3	2.6	1.3	1.8	2.6	2.8	2.6	1.8	2.2	**2.36 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
2	25PCC2OE02	**Open Elective - 2 (BS):** Behavioural Dynamics and Psychology	4	2

Course Objectives
To provide an in-depth understanding of behavioural dynamics and psychological principles at the postgraduate level.
To explore key psychological theories and their applications in individual and group behaviour.
To develop critical insights into behavioural patterns and psychological processes influencing decision-making.
To examine the role of cognitive, emotional, and social factors in shaping human behaviour.
To enhance analytical skills for applying psychological concepts to real-world personal and professional contexts.

UNIT I: Foundations of Behavioural Dynamics (12 Hours)

Definition, Scope, and Significance of Behavioural Dynamics -Key Psychological Theories Influencing Behaviour - Personality and Behaviour: Theoretical Approaches - Role of Perception, Attitudes, and Beliefs in Behaviour -Cultural and Social Influences on Behavioural Patterns

UNIT II: Motivation and Emotion in Behaviour (12 Hours)

Theories of Motivation: Maslow, Herzberg, McClelland -Emotional Intelligence and Its Impact on Behaviour - Role of Emotions in Decision-Making and Leadership –Coping Mechanisms and Stress Management -Case Studies on Motivational Strategies

UNIT III: Cognitive Processes and Behaviour (12 Hours)

Cognitive Psychology: Perception, Memory, and Learning - Decision-Making Processes and Problem-Solving Strategies - Heuristics and Biases in Human Judgement -Influence of Cognition on Behavioural Outcomes -Cognitive Behavioural Therapy (CBT) Principles

UNIT IV: Group Dynamics and Interpersonal Behaviour (12 Hours)

Dynamics of Groups: Formation, Roles, and Norms - Leadership Styles and Their Impact on Group Behaviour -Communication Processes in Interpersonal Relationships - Conflict Management and Negotiation Strategies -Influence of Groupthink and Conformity on Behaviour

UNIT V: Applications of Behavioural Psychology (12 Hours)

Behavioural Analysis in Organizational Settings - Behavioural Change Models and Interventions - Psychological Aspects of Consumer Behaviour -Ethical Considerations in Behavioural Research and Practice -Future Trends in Behavioural Science and Its Applications

Teaching Methodology	Interactive lectures with multimedia presentations. -Case studies and role-play activities to illustrate behavioural concepts. -Group discussions and debates on psychological theories and applications -Experiential learning through behavioural experiments and simulations. -Guest lectures from industry experts and psychologists.
Assessment Methods	Seminar, Snap Test, MCQ

Books for Study:

1. Robbins, S. P., & Judge, T. A. (2019). *Organizational Behavior* (18th ed.). Pearson Education.
2. Myers, D. G. (2018). *Psychology* (12th ed.). Worth Publishers.
3. Baron, R. A., & Branscombe, N. R. (2017). *Social Psychology* (14th ed.). Pearson Education.

Books for Reference:

1. Goleman, D. (1995). *Emotional Intelligence: Why It Can Matter More Than IQ*. Bantam Books.
2. Cialdini, R. B. (2009). *Influence: The Psychology of Persuasion* (Rev. ed.). Harper Business.

Websites and eLearning Sources:

1. American Psychological Association. (n.d.). *Topics in Psychology*. https://www.apa.org/topics

2. Simply Psychology. (n.d.). *Psychological Theories and Research*. https://www.simplypsychology.org/
3. Verywell Mind. (n.d.). *Behavioral Psychology*. https://www.verywellmind.com/
4. Coursera – *Introduction to Psychology* (https://www.coursera.org/learn/introduction-psychology)
5. edX – *The Science of Happiness* (https://www.edx.org/)
6. Udemy – *Behavioral Psychology: Understanding Human Behavior* (https://www.udemy.com/)

Course outcomes		
CO No.	**CO-Statements**	**Cognitive Levels (K-Level)**
	On successful completion of this course, the students will be able to	
CO1	Recall fundamental concepts and theories in behavioural dynamics and psychology.	**K1**
CO2	Explain psychological principles affecting individual and group behaviour.	**K2**
CO3	Apply behavioural theories to analyse real-life situations and case studies.	**K3**
CO4	Analyze behavioural patterns and psychological processes influencing decision-making.	**K4**
CO5	Evaluate psychological frameworks for addressing behavioural issues in personal and professional settings.	**K5**
CO6	Design behavioural strategies and interventions based on psychological insights.	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**					**Hours**		**Credits**
2	**25PCC2OE02**			**Open Elective – 2 (BS):** Behavioural Dynamics and Psychology					**4**		**2**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	2	2	1	3	3	3	2	2	**2.4**
CO2	3	3	3	2	2	3	3	3	2	2	**2.5**
CO3	3	3	3	2	2	3	3	3	2	2	**2.5**
CO4	3	3	2	2	2	3	3	3	2	2	**2.5**
CO5	3	3	3	3	2	3	3	3	2	2	**2.7**
CO6	3	3	2	3	2	3	3	3	2	2	**2.6**
Mean Overall Score											**2.53 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
3	25PCC3CC08	**Core Course - 8:** Labour Legislations	5	4

Course Objectives
To understand the concepts of labour laws.
To know the acts supporting the workers.
To understand the importance of bonus act.
To evaluate the compensation provided to workers.
To create the methods to form the trade unions as per the act.

UNIT I: Factories Act, 1948 (15 Hours)

Definition and provisions relating to health, safety, welfare, working hours, and leave. Licensing and registration of factories are obligations of the manager and occupier. Powers of the authorities under the Act, conflict resolution, and settlement. Amendments to the Act and their contemporary significance.

In ancient Indian traditions, there was a clear emphasis on Dharma (righteousness) and Santosha (contentment), which supports a safe and healthy environment for workers.

UNIT II: Employee's Compensation Act, 1923 (15 Hours)

Employer's liability for compensation and the method of calculating wages. Distribution of compensation and conflict settlement methods. Remedies of employers against strangers. Employee's Compensation Commission and its role in resolving disputes.

The values of Ahimsa (non-violence) and Karuna (compassion) align with the spirit of this act, as it mandates the compensation of workers for injuries or accidents at the workplace.

UNIT III: Payment of Bonus Act, 1965 (15 Hours)

Computation of available surplus and calculation of direct tax payable. Eligibility for bonus and methods of calculating bonus payment. Deductions from bonuses payable and adjustments related to customary or interim bonuses. Allocable surplus and the accuracy of financial reports.

The Payment of Bonus Act reflects the Indian principles of justice and shared prosperity, akin to Artha and Dharma from Indian Knowledge Systems, where every worker, as part of the collective, shares in the business's success.

UNIT IV: Employees Provident Fund, 1952 and Child Labour Act, 1986 (15 Hours)

EPF Features and schemes under EPF (UAN, EPFO Claim status). Role of EPF in securing workers' retirement benefits. Child Labour Act and regulation of child work. Implementation of provisions to ensure the welfare of children.

The Employees Provident Fund (EPF) resonates with the tradition of security and future welfare, similar to Vedic practices of wealth management and savings for the future.

UNIT V: Payment of Wages Act, 1936 (15 Hours)

Objectives and provisions relating to payment of wages, wage periods, and deductions. Responsibilities for ensuring timely payment and maintaining proper records. Powers of authorities for adjudicating disputes related to wage payments.

In ancient India, the concept of just wages and equitable treatment was embedded in Arthashastra, where it was essential for workers to be paid on time and justly for their labor.

Teaching Methodology	Chalk and talk, Videos, PPT
Assessment methods	MCQs, seminar, snap test, open book test, group discussion

Books for Study:

1. P.R.N. Sinha, Sinha Indu Bala, 2017, Industrial Relations, Trade Unions and Labour Legislations, Pearson Education; Third edition
2. Kapoor N.D, (2018), revised edition, Elements of Industrial Law, Sultan Chand Publications, New Delhi.
3. K M Pillai (2015) Labour and Industrial Laws, by, Edition: 16th Edition 2015, Reprinted 2024, Allahabad Law Agency.

Books for Reference:

1. Malik P.L.,18th Edition, (2018), Handbook of Labour and Industrial Law by Editorial Staff of SCC.
2. PadhiP.K.(2012), second edition, Labour and Industrial Laws, published by Prentice Hall India, Maharastra.

Websites and eLearning Sources:

1. https://vvgnli.gov.in/sites/default/files/Factories%20Act%2C%201948.pdf
2. https://vvgnli.gov.in/sites/default/files/Employee%27s%20Compensation%20Act%2C%201923.pdf
3. https://vvgnli.gov.in/sites/default/files/Payment%20of%20Bonus%20Act%2C%201965.pdf
4. https://labour.gov.in/sites/default/files/rules-1972.pdf
5. https://sclsc.gov.in/theme/front/pdf/ACTS%20FINAL/THE%20CHILD%20LABOUR%20(PROHIBITION%20AND%20REGULATION)%20ACT,%201986.pdf

CO. No.	CO- Statement	Cognitive Level (K- level)
	On successful completion of this course, students will be able to	
CO-1	Understand the concepts of labour laws	**K1**
CO-2	Know the acts supporting the workers	**K2**
CO-3	Understand the importance of bonus act	**K3**
CO-4	Evaluate the compensation provided to workers	**K4**
CO-5	Create the methods to form the trade unions as per the act	**K5**
CO-6	Identify the Wage Payment Regulations	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**					**Hours**		**Credits**
3	**25PCC3CC08**			**Core course - 8:** Labour Legislations					**5**		**4**
Course Outcomes↓	**Programme Outcomes (PO)**					**Programme Specific Outcomes (PSO)**					**Mean Scores of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO-1	3	3	3	2	2	3	3	3	3	2	2.7
CO-2	3	3	3	3	2	3	3	2	2	3	2.7
CO-3	3	3	3	2	3	2	3	2	3	2	2.6
CO-4	3	3	3	3	2	2	3	2	2	3	2.6
CO-5	3	3	3	2	3	2	3	2	2	3	2.6
CO-6	3	3	3	2	3	2	3	2	2	3	2.6
										Mean Overall Score	2.6 (High)

Semester	Course Code	Title of the Course	Hours/Week	Credits
3	25PCC3CC09	**Core Course - 9:** Advanced Corporate Accounting	6	4

Course Objectives
To understand the concepts of internal reconstruction of a company
To obtain a basic understanding of Accounting standard 14
To Develop an understanding of the role of inter -company holdings and its settlement
To prepare the consolidated financial statement of accompany
To understand the preparation of a banking and insurance company accounts.

UNIT I: Internal Reconstruction (18 Hours)

Meaning - Alteration of share capital – Accounting Procedures.

UNIT II: Amalgamation, Absorption & External Reconstruction (18 Hours)

Meaning- Amalgamation in the nature of Merger, Purchase - External Reconstruction – Applicability of AS 14- Calculation of Purchase consideration (all methods) – Journal Entries in the books of Transferor and Transferee Companies, Revised Balance Sheet (excluding inter - company holdings)

UNIT III: Liquidation (18 Hours)

Meaning – liquidator - Preparation of Liquidator's Final Statement of Accounts – Calculation of Liquidator Remuneration.

UNIT IV: Consolidation financial statements (18 Hours)

Holding Company –Subsidiary company - Meaning – Preparation of Consolidated Final Statement of Accounts.

UNIT V: Accounting For Banking and Life Insurance Companies (18 Hours)

Bank accounts - Concept of Non-Performing Assets (NPA)-Preparation of Profit and Loss Account - Asset classification - Preparation of Balance Sheet: Life insurance company accounts: Revenue account – profit and loss account (FORM A-RA, FORM A-PL, FORM A-BS)

THEORY 20% & PROBLEM 80%

Teaching Methodology	Chalk and talk, Videos, PPT
Assessment methods	MCQs, seminar, snap test, open book test, group discussion

Books for Study:

1. Gupta, R.L.& Radhaswamy. M., Advanced Accounts, Sulthan Chand &Sons, New Delhi.

Books for Reference:

1. Jain, S.P. & Narang K.L., Advanced Accounts – Kalyani Publishers.
2. Reddy, T.S & Murthy, A, Corporate Accounting, Margham Publications, Chennai.
3. Shukla, M.C. & Grewal, J. S, Advanced Accounts, S.Chand and Company, NewDelhi
4. Raj Kumar Sah - Concepts Building Approach to Corporate Accounting - CENGAGE, New Delhi

Websites and eLearning Sources:

1. www.accountingcoach.com
2. www.accountingstudyguide.com
3. www.futureaccountant.com
4. www.education.svtuition.org

Course Outcomes		
CO. No.	**CO- Statements**	**Cognitive Level (K- level)**
	On successful completion of this course, the students will be able to	
CO-1	Describe the corporate accounting methods of preparation of accounts	**K1**
CO-2	Understand various accounting standards in connection with the company accounts	**K2**
CO-3	Understand consolidation of holding and subsidiary companies.	**K3**
CO-4	Apply the Banking regulations and Insurance company's regulations	**K4**
CO-5	Update the recent development in the company accounting system	**K5**
CO-6	Analyse the reasons for growth and fall of a company.	**K6**

Relationship matrix											
Semester	**Course Code**			**Title of the Course**					**Hours**		**Credits**
3	**25PCC3CC09**			**Core Course - 9:** Advanced Corporate Accounting					**6**		**4**
Course Outcomes↓	**Programme Outcomes (PO)**					**Programme Specific Outcomes (PSO)**					**Mean Scores of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO-1	2	3	2	3	2	3	3	3	2	3	2.6
CO-2	2	3	2	3	2	3	3	2	2	3	2.5
CO-3	2	3	2	3	2	3	3	2	2	3	2.5
CO-4	2	3	2	3	2	2	3	2	2	3	2.4
CO-5	2	3	2	3	2	3	3	2	2	3	2.5
CO-6	2	3	3	2	2	2	3	3	2	2	2.48
										Mean Overall Score	2.5 (High)

Semester	Course Code	Title of the Course	Hours	Credits
3	25PCC3CC10	**Core Course - 10:** Big Data Analysis	3	2

Course Objectives
To understand big data concepts, analytics life cycle, and architectures.
To explore R programming for statistical and advanced data analysis.
To apply machine learning techniques like clustering, association rules, and regression.
To implement various classification methods
To analyze time-series data, and perform text analysis.

UNIT I: BIG DATA OVERVIEW (9 Hours)

Big Data Overview- Data Structures - Analyst Perspective on Data Repositories-State of the Practice in Analytics - BI Versus Data Science - Current Analytical Architecture- Drivers of Big Data- Emerging Big Data Ecosystem and a New Approach to Analytics- Key Roles for the New Big Data Ecosystem- Examples of Big Data Analytics - Data Analytics Life Cycle: Data Analytics Life Cycle Overview-Discovery-Data preparation-Model planning.

UNIT II: FEATURES OF R (9 Hours)

Introduction to R-Exploratory data analysis- Statistical methods for evaluation-Advanced analytical theory and methods: -Clustering-Overview-K-means-Additional algorithm

UNIT III: MODEL DEVELOPMENT &ALGORITHM (9 Hours)

Overview-Apriori algorithm-evaluation of candidate rules-Applications of association rules- An Example: Transactions in a Grocery Store - The Groceries Dataset- Frequent Item set Generation- Rule Generation and Visualization- Validation and Testing – Diagnostics- Linear Regression.: Use Cases- Model Description – Diagnostics- Logistic Regression - Use Cases- Model Description- Diagnostics- Reasons to Choose and Cautions- Additional Regression Models.

UNIT IV: CLASSIFIERS IN R (9 Hours)

Decision Trees- Overview of a Decision Tree-The General Algorithm - Decision Tree Algorithms- Evaluating a Decision Tree- Decision Trees in R - Naïve Bayes -Bayes' Theorem- Naïve Bayes Classifier- Smoothing-Diagnostics- Naïve Bayes in R-Diagnostics of Classifiers-Additional Classification Methods

UNIT V: TEXT ANALYSIS (9 Hours)

Methodology-ARIMA Model- Autocorrelation Function (ACF)- Moving Average Models - ARMA and ARIMA Models- Building and Evaluating an ARIMA Mode- Reasons to Choose and Cautions- Additional Methods- Text Analysis Steps- A Text Analysis Example- Collecting Raw Text- Representing Text -Term Frequency—Inverse Document Frequency (TFIDF)- Categorizing Documents by Topics - Determining Sentiments - Gaining Insights.

Teaching Methodology	PPT, Video
Assessment Methods	Model Development, Practical Assignments, Case Studies & Real-World Applications,

Books for Study:

1. David Dietrich, Barry Heller, Beibei Yang (2015), *Data Science and Big Data Analytics-discovering, Analyzing, Visualizing and presenting Data*, Ist Edition John willey & sons, Inc., Indiana.

Boks for Reference:

1. Frank Ohlhorst (2013). *Big Data Analytics-Turning Big Data in to Big Money*, Ist Edition John Wiley & Sons, Inc., Hoboken, New Jersey.
2. Jared Dean (2014). *Big data, Data Mining and Machine Learning*, 2nd Edition, John Wiley & Sons, Inc., Hoboken, New Jersey.
3. Frank J. Ohlhorst, "Big Data Analytics: Turning Big Data into Big Money", Wiley.
4. Nathan Marz & James Warren, "Big Data: Principles and best practices of scalable real-time data systems", Manning Publications.
5. Joel Grus, "Data Science from Scratch", O'Reilly Media.

Online Learning Materials:

- **SWAYAM**: https://swayam.gov.in
- **NPTEL**: https://nptel.ac.in/courses/
- **Coursera**: Big Data Analytics Courses
- **Udemy**: Big Data & Data Science Courses
- **GeeksforGeeks**: https://www.geeksforgeeks.org/big-data/

YouTube Channels:

- Simplilearn: Big Data & Data Analytics Tutorials
- Edureka: Big Data Training
- Data School: Data Analysis in Python

CO.No	CO Statements	Cognitive Level (K- level)
CO1	Understanding the Key factors of Big Data, Data analysis and Data Analytics	**K1**
CO2	Exploring the Analytical methods and R environment	**K2**
CO3	Experimenting the Association, Apriori and Regression methods	**K3**
CO4	Developing the Model using Decision tree	**K4**
CO5	Comparing various Analytical Algorithms and proposing a model	**K5**
CO6	Build functions in different models	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**					**Hours**		**Credits**
3	**25PCC3CC10**			**Core Course - 10:** Big Data Analysis					**3**		**2**
Course Outcomes↓	**Programme Outcomes (PO)**					**Programme Specific Outcomes (PSO)**					**Mean Scores of COs**
	PO1	**PO2**	**PO**	**PO-**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO-1	3	3	3	1	1	3	3	2	3	1	**2.3**
CO-2	3	3	3	1	1	3	3	2	3	1	**2.3**
CO-3	3	3	3	1	1	3	3	2	3	1	**2.3**
CO-4	3	2	3	1	1	3	3	2	3	1	**2.2**
CO-5	3	3	2	1	1	3	3	2	3	1	**2.2**
CO-6	3	3	3	1	1	3	3	2	3	1	**2.3**
										Mean Overall Score	**2.26**
											High

Semester	Course Code	Title of the Course	Hours	Credits
3	25PCC3CP03	**Core Practical - 3:** Data Analysis Using R	3	2

Course Objectives
Implement and work with various data structures in R.
Extract data from multiple sources and utilize it for comprehensive data analysis.
Visualize and summarize data effectively using R.
Perform statistical computations and apply data analysis techniques in R.
Generate insightful reports and dashboards using R-based visualization tools.

Data Analysis R Program List:

1. Perform the R program to load and explore a dataset using the read.csv () function.
2. Implement an R script to check the structure and summary of a dataset using str() and summary().
3. Create an R program to clean missing values by replacing them with the mean or median.
4. Develop an R script to detect and remove duplicate records from a dataset.
5. Perform data visualization by creating a histogram to analyze data distribution.
6. Implement an R program to filter and subset data based on specific conditions.
7. Construct an R script to group and summarize data using the dplyr package.
8. Create an R program to perform correlation analysis between numerical variables.
9. Develop an R script to apply statistical functions like mean(), median(), and sd() on a dataset.
10. Perform time series analysis by plotting a time series graph using ggplot2.
11. Develop an R program to merge multiple datasets using the merge() function.
12. Implement an R script to normalize and standardize numerical data for analysis.
13. Perform the R program to detect and handle outliers using the Interquartile Range (IQR) method.
14. Create an R script to perform Principal Component Analysis (PCA) for dimensionality reduction.
15. Develop an R program to perform K-Means clustering on a dataset and visualize clusters.
16. Implement an R script to perform linear regression and evaluate the model performance.
17. Construct an R program to apply logistic regression for binary classification.
18. Perform the R program to generate and interpret a confusion matrix for model evaluation.
19. Create an R script to visualize categorical data using a bar chart and stacked bar chart.
20. Develop an R program to perform sentiment analysis using text mining techniques.

CO. No	CO Statements	Cognitive Level (K- level)
CO1	Implement and work with various data structures in R.	**K1**
CO2	Extract data from multiple sources and utilize it for comprehensive data analysis.	**K2**
CO3	Visualize and summarize data effectively using R.	**K3**
CO4	Perform statistical computations and apply data analysis techniques in R.	**K4**
CO5	Generate insightful reports and dashboards using R-based visualization tools.	**K5**
CO6	Categorize different data charts	**K6**

Relationship Matrix											
Semester	Course Code			Title of the Course						Hours	Credits
3	25PCC3CP03			**Core Practical - 3:** Data Analysis Using R						3	2
Course Outcomes↓	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	3	3	2	2	1	3	2	3	1	1	2.1
CO2	3	1	3	1	1	3	2	3	1	2	2
CO3	3	3	3	2	1	3	1	3	1	3	2.3
CO4	3	1	3	3	2	3	2	3	1	2	2.3
CO5	3	3	3	1	2	3	2	3	1	2	2.3
CO6	3	3	3	1	2	3	2	3	1	2	2.3
										Mean Overall Score	2.2
											High

Semester	Course Code	Title of the Course	Hours	Credits
3	25PCC3CC11	**Core Course – 11:** Organizational Behaviour	5	4

Course Objectives
To Know the concept of organizational behavior and understand the role of managers.
To apply group dynamics and leadership qualities in an organization.
To Analyze the best management practices across the world.
To Evaluate the emerging trends in corporate structure, strategy and culture.
To Create perception and motivation for employees in an organization.

UNIT I: Overview of Organizational Behaviour (15 Hours)

Organization meaning -Concept of organizational behavior-Importance of organizational behavior- Key elements of organizational behavior, Role of managers in OB- Impersonal roles- Informational roles, Decisional roles, Foundations or approaches to organizational behavior, Challenges and opportunities for OB.

UNIT II: Organizational Structure and Design (15 Hours)

Authority and Responsibility Relationships - Delegation of Authority and Decentralization - Interdepartmental Coordination - Emerging Trends in Corporate Structure, Strategy and Culture - Impact of Technology on Organizational design - Mechanistic vs Adoptive Structures - Formal and Informal Organization.

*In Indian Knowledge Systems, authority and responsibility often draw on the concept of **Dharma** (righteous duty or role), which emphasizes the alignment of one's responsibilities with societal values and ethical norms. This can be applied in modern organizational settings by encouraging leaders and managers to take responsibility not only for achieving organizational goals but also for ensuring that their actions align with ethical practices and collective well-being*

UNIT III: Perception of Organization (15 Hours)

Personality and Individual Differences - Job Performance - Values, Attitudes and Beliefs - Stress Management – Motivation – Early theories, Contemporary theories- Motivation at work – Designing and Motivating for jobs.

UNIT IV: Group Dynamics (15 Hours)

Leadership - Styles - Approaches - Power and Politics - Organizational Structure - Organizational Climate and Culture - Organizational Change and Development.

UNIT V: Comparative Management Styles and approaches (15 Hours)

Organizational Creativity and Innovation - Management of Innovation - Entrepreneurial Management - Benchmarking - Best Management Practices across the world - Select cases of Domestic & International Corporations - Management of Diversity

Teaching Methodology	PPT, Chalk and Talk
Assessment Methods	Seminar, Snap Test, MCQ

Books for Study:

1. L.M. Prasad, (2024), *Organizational Behaviour*, Fifth Edition, Sultan Chand &Sons, India

Books for Reference:

1. K. Aswathappa, *Organizational Behaviour*, Twelth Edition, Himalaya Publishing House, India, 2016
2. J.S. Chandran, *Organizational Behaviour*, Second Edition, Vikas Publishing House, India, 2018
3. Stephen P. Robbins, Timothy A. Judge, *Organizational Behaviour*, Eighteenth Edition, Pearson Publications, India, 2019.

Websites and e Learning Sources:

1. https://www.jsscacs.edu.in/sites/default/files/Department%20Files/introduction%20of%20OB%20unit%201%20%281%29.pdf

2. https://www.pvpsiddhartha.ac.in/dep_it/lecture%20notes/OB/UNIT%20-%20I.pdf
3. https://whatfix.com/blog/organizational-structure/
4. https://unstop.com/blog/perception-in-organizational-behaviour
5. https://www.slideshare.net/YaminiKahaliya/notes-on-perception-in-organisation-behavior-notes-for-bbabcom-students
6. https://www.jsscacs.edu.in/sites/default/files/Department%20Files/Unit-2-%20OB%20bba%281%29.pdf
7. https://tau.edu.ng/assets/media/docs/comparative-management-bus-420_1720097237.pdf

	Course Outcomes	
CO No.	**CO- Statements** On successful completion of this course, the students will be able to	**Cognitive Level (K- level)**
CO1	Relate the role of managers in organizational behaviour.	**K1**
CO2	Demonstrate the emerging trends in corporate structure, strategy and culture.	**K2**
CO3	Explain the contemporary theories of motivation	**K3**
CO4	Compare the organizational climate and culture.	**K4**
CO5	Determine the best management practice across the world	**K5**
CO6	Learn Best Management Practices	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**						**Hours**	**Credits**
3	**25PCC3CC11**			**Core Course – 11:** Organizational Behaviour						**5**	**4**
Course Outcomes	**Programme Outcomes (PO)**					**Programme Specific Outcomes (PSO)**					**Mean Scores of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO-1	3	3	3	2	1	3	3	2	1	3	2.4
CO-2	2	3	2	2	1	3	3	2	2	3	2.3
CO-3	1	2	3	2	2	2	2	2	2	2	2.0
CO-4	2	2	2	2	1	2	3	3	2	2	2.1
CO-5	1	2	2	3	2	2	2	3	2	3	2.2
CO-6	1	2	2	3	2	2	2	3	2	3	2.2
									Mean Overall Score		2.2
											High

Semester	Course Code	Title of the Course	Hours	Credits
3	25PCC3ES02A	**Discipline Specific Elective - 2:** Social Entrepreneurship	4	3

Course objectives
To assess the evolution of digital marketing
To appraise the dimensions of online marketing mix
To infer the techniques of digital marketing
To analyse online consumer behaviour
To interpret data from social media and to evaluate game based marketing

Unit 1: Fundamentals of Social Entrepreneurship: (12 Hours)

Concept of Social entrepreneur & entrepreneurship – Evolution, Need, Major Functions, Difference between Social and Commercial entrepreneurs, Areas of Social Entrepreneurship.

Unit 2: Women Entrepreneurship (12 Hours)

Concept, Functions, Problems, Development of women entrepreneurship in India, Role of women Associations.

Unit 3: Rural Entrepreneurship (12 Hours)

Concept, Need, Problems, NGO & Rural entrepreneurship – Development of rural entrepreneurship in India.

Unit 4: Trends in Social Entrepreneurship (12 Hours)

Major challenges, Major opportunities, Role of Government for growth of social entrepreneurship in country, Global trends in social entrepreneurship, Contribution of Successful Social entrepreneurs of India and Abroad.

Unit 5: Growth and promotion of Entrepreneurship in India (12 Hours)

Institutional arrangements, Entrepreneurial motivation - Values and Culture, Entrepreneurship in various sectors - Access to finance, market, R&D and Technology - Policies and programmes related to entrepreneurship development.

Teaching Methodology	Lecture Method, Online Lectures, Group Discussion, Practical Problem Solving
Assessment Methods	Seminar, Snap Test, MCQ

Books for study:

1. Social Entrepreneurship by David bournstein & Susan Devis, Oxford University Press.
2. Entrepreneurship Development by S. S. Khanka, 2022

Books for reference:

1. Desai Vasant, "Management of Small Scale Industries" Himalaya Publishing House, New Delhi. 2019
2. The Institute of Company Secretaries in India (ICSI), "Business Environment & Entrepreneurship" – Study Material - 2014
3. Taneja Satish and Gupta: "Entrepreneurship Development-New Venture Creation" – Galgotia Publishing Company, New Delhi 2011

Websites and eLearning Sources:

1. Social Entrepreneurship: Meaning, Importance, and Key Factors
2. Unit5 Social Entrepreneurship - Page | 1 Unit 5 Social Entrepreneurship Social Entrepreneurship - Studocu
3. WYR2020-Chapter1.pdf

	Course Outcomes	
CO. No.	**CO Statements**	**Cognitive Level (K- level)**
	On Successful completion of this course the students will be able to	
CO 1	Learn about Fundamentals of Social Entrepreneurship	**K1**
CO 2	Get familarity with aspects of Women Entrepreneurship	**K2**
CO 3	Get exposure to Rural Entrepreneurship	**K3**
CO 4	Get exposure to Trends in Social Entrepreneurship	**K4**
CO 5	Analyse social Entrepreneurship growth	**K5**
CO 6	Growth and promotion of Entrepreneurship in India	**K6**

Relationship matrix											
Semester	**Course Code**			**Title of the Course**					**Hours**		**Credits**
3	**25PCC3ES02A**			**Discipline Specific Elective - 2:** Social Entrepreneurship					**4**		**3**
Course Outcomes (Cos)	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Scores of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO-1	3	3	3	2	1	3	2	3	2	3	**2.5**
CO-2	2	3	3	2	2	2	3	2	1	3	**2.3**
CO-3	3	2	3	2	2	3	2	2	2	2	**2.3**
CO-4	3	3	2	2	2	3	3	3	2	3	**2.6**
CO-5	2	3	3	2	1	3	3	2	2	3	**2.4**
CO-6	2	3	3	2	1	3	3	2	2	3	**2.4**
										Mean overall Score	**2.4**

Semester	Course Code	Title of the Course	Hours	Credits
3	25PCC3ES02B	**Discipline Specific Elective – 2:** Data Mining	4	3

Course Objectives
Understand the concepts of data warehousing, its components, and OLAP for business analysis.
Apply data preprocessing techniques and association rule mining for pattern discovery.
Implement classification and prediction models for decision-making and accuracy evaluation.
Analyze different clustering techniques and perform outlier detection in datasets.
Explore advanced data mining applications in spatial, multimedia, text, and web data.

UNIT I: Introduction about Data Warehouse (12 Hours)

Data Warehousing and Business Analysis: - Data warehousing Components –Building a Data warehouse – Data Warehouse Architecture – DBMS Schemas for Decision Support – Data Extraction, Cleanup, and Transformation Tools –Metadata – reporting – Query tools and Applications – Online Analytical Processing (OLAP) – OLAP and Multidimensional Data Analysis.

UNIT II: Data mining Basics (12 Hours)

Data Mining: - Data Mining Functionalities – Data Preprocessing – Data Cleaning – Data Integration and Transformation – Data Reduction – Data Discretization and Concept Hierarchy Generation- Architecture of A Typical Data Mining Systems- Classification of Data Mining Systems. Association Rule Mining: - Efficient and Scalable Frequent Item set Mining Methods – Mining Various Kinds of Association Rules – Association Mining to Correlation Analysis – Constraint-Based Association Mining.

UNIT III: Classification (12 Hours)

Classification and Prediction: - Issues Regarding Classification and Prediction – Classification by Decision Tree Introduction – Bayesian Classification – Rule Based Classification – Classification by Back propagation – Support Vector Machines – Associative Classification – Lazy Learners – Other Classification Methods – Prediction – Accuracy and Error Measures – Evaluating the Accuracy of a Classifier or Predictor – Ensemble Methods – Model Section.

UNIT IV: Cluster Analysis (12 Hours)

Cluster Analysis: - Types of Data in Cluster Analysis – A Categorization of Major Clustering Methods – Partitioning Methods – Hierarchical methods – Density-Based Methods – Grid-Based Methods – Model-Based Clustering Methods – Clustering High-Dimensional Data – Constraint-Based Cluster Analysis – Outlier Analysis.

UNIT V: Mining in Different Domain (12 Hours)

Mining Object, Spatial, Multimedia, Text and Web Data: Multidimensional Analysis and Descriptive Mining of Complex Data Objects – Spatial Data Mining – Multimedia Data Mining – Text Mining – Mining the World Wide Web.

Teaching Methodology	PPT, Video
Assessment Methods	Model Designing, Code Development, Debugging, Slip Test

Books for Study:

1. Jiawei Han, Micheline Kamber and Jian Pei“Data Mining Concepts and Techniques”, Third Edition, Elsevier, 2011.

Books for reference:

1. Alex Berson and Stephen J. Smith “Data Warehousing, Data Mining & OLAP”, Tata McGraw – Hill Edition, Tenth Reprint 2007.
2. K.P. Soman, Shyam Diwakar and V. Ajay “Insight into Data mining Theory and Practice”, Easter Economy Edition, Prentice Hall of India, 2006.
3. G. K. Gupta “Introduction to Data Mining with Case Studies”, Easter Economy Edition, Prentice Hall of India, 2006.
4. Pang-Ning Tan, Michael Steinbach and Vipin Kumar “Introduction to Data Mining”, Pearson Education, 2007.

Online Courses & Study Materials:

- **SWAYAM:** https://swayam.gov.in (Search for "Data Mining" courses)
- **NPTEL:** https://nptel.ac.in/courses/ (Search for "Data Mining" courses)
- **Coursera:** https://www.coursera.org/courses?query=data+mining (Data Mining Specialization & related courses)
- **Udemy:** https://www.udemy.com/courses/search/?q=data%20mining (Paid and free courses on Data Mining techniques)
- **Geeks for Geeks:** https://www.geeksforgeeks.org/data-mining/ (Comprehensive Data Mining tutorials)

YouTube Channels for Data Mining Tutorials:

- **Simplilearn:** Data Mining Full Course
- **Edureka:** Data Mining Training
- **Data School:** Data Mining & Machine Learning using Python
- **Great Learning:** Data Mining & Analytics
- **Krish Naik:** Data Mining and Machine Learning

CO.No	Course Outcomes CO-Statements On successful completion of this course, the students will be able to	Cognitive Level (K- level)
CO1	Understand the concepts of data warehousing, OLAP, and their role in business analysis.	**K1**
CO2	Apply data preprocessing techniques to improve data quality for mining.	**K2**
CO3	Implement classification, prediction, and association rule mining techniques.	**K3**
CO4	Analyze clustering methods and perform outlier detection.	**K4**
CO5	Explore data mining applications in spatial, multimedia, text, and web data.	**K5**
CO6	Evaluate and optimize data mining models for better decision-making.	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**						**Hours**	**Credits**
3	**25PCC3ES02B**			**Discipline Specific Elective – 2:** Data Mining						**4**	**3**
Course Outcomes↓	**Programme Outcomes (PO)**					**Programme Specific Outcomes (PSO)**					**Mean Scores of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO-1	3	3	3	1	1	3	3	2	3	1	2.3
CO-2	3	3	3	1	1	3	3	2	3	1	2.3
CO-3	3	3	3	1	1	3	3	2	3	1	2.3
CO-4	3	2	3	1	1	3	3	2	3	1	2.2
CO-5	3	3	2	1	1	3	3	2	3	1	2.2
CO-6	3	3	2	2	2	3	3	2	3	2	2.3
										Mean Overall Score	2.3(High)

Semester	Course Code	Title of the Course	Hours	Credits
3	25SMS3RM01	**Common Core (WS):** Intellectual Property Rights (IPR)	4	2

Course Objectives
To impart knowledge on the Concept and kinds of IPR
To enhance the awareness of Patent Rights.
To analyze the protection and transfer of Copy Rights.
To create awareness on Trademarks
To make the students understand the practical aspect of registration.

Unit I: Intellectual Property Rights (IPR) (12 Hours)

Concept and kinds - Economic importance - IPR in India and Abroad – Genesis and Development – the way from WTO to WIPO -TRIPS, Nature of Intellectual Property, Industrial Property, technological Research, Inventions and Innovations – Important examples of IPR.

Unit II: Patents (12 Hours)

History, Types of patent, Objectives, Rights, Patent Acts 1970 and its amendments - Procedure of obtaining patents, working of patent, Infringement, Industrial Application: Non-Patentable Subject Matter, Registration Procedure, Rights and duties of Patentees

Unit III: Copyrights (12 Hours)

Introduction, works protected under copyright law, Rights, Transfer of Copyrights, Infringement, Remedies and Penalties.

Unit IV: Trademarks (12 Hours)

Objectives, Types, Rights, Protection of goodwill, Infringement, Passing off, Defenses, Domain name.

Unit V: Registration and Protection (12 Hours)

Meaning and practical aspects of registration of Copy Rights, Trademarks, Patents, Geographical Indications, Trade Secrets and Industrial Design registration in India and Abroad. Infringement of IPRs, Enforcement Measures, Emerging issues – Case Studies.

Teaching Methodology	Chalk and talk, Case analysis, Expert interaction and practical exposure
Assessment Methods	Online Test, Seminar, Library work and Case study methods

Books for Study:

1. Nithyananda, K.V. Intellectual Property Rights: Protection and Management. India, In: Cengage Learning India Private Limited. New Delhi, 2019.
2. S.V. Satarkar, Intellectual Property Rights and Copy Rights, Ess Ess Publications, New Delhi, 2002.
3. V. Scople Vinod, Managing Intellectual Property, Prentice Hall of India pvt Ltd, New Delhi, 2012.

Books for References:

1. Neeraj, P. and Khusdeep, D. Intellectual Property Rights. India, In: PHI learning Private Limited, New Delhi, 2014.
2. Ahuja, V.K. Law relating to Intellectual Property Rights. India, In: Lexis Nexis, 2017.
3. Deborah E. Bouchoux, "Intellectual Property: The Law of Trademarks, Copyrights, Patents and Trade Secrets", Cengage Learning, Third Edition, 2012.
4. Prabuddha Ganguli," Intellectual Property Rights: Unleashing the Knowledge Economy", Tata McGraw Hill Education, New Delhi, 2011.
5. Edited by Derek Bosworth and Elizabeth Webster, The Management of Intellectual Property, Edward Elgar Publishing Ltd., New Delhi, 2013.

Websites and E-Learning Resources:

1.https://testbook.com/ias-preparation/intellectual-property-rights-ipr
2.https://padeepz.net/ge8075-question-bank-intellectual-property-rights-regulation-2017-anna-university/#google_vignette

3.https://www.icsi.edu/media/webmodules/Academics/Intellectual_Property_Rights_Law_Practice.pdf
4.https://articles.manupatra.com/article-details/Patent-Types-Laws-related-to-them-in-India
5.https://www.legalserviceindia.com/legal/article-10384-law-of-patent-securing-intellectual-property-in-india.html#google_vignette

Course Outcomes		
CO. No.	**CO- Statement** On successful completion of this course, the students will be able to	**Cognitive Level (K- level)**
CO-1	Get insight on the basic concepts of Intellectual Property Rights	**K1**
CO-2	Understand the basic concepts of applying for patent right, copy right and trade mark.	**K2**
CO-3	Understand and apply the appraisal methods for intellectual property rights	**K3**
CO-4	Understand and evaluate the functioning of the authorities authorized to grant patent	**K4**
CO-5	Analyze the working pattern of the intellectual property rights	**K5**
CO-6	Apply the knowledge gained by analyzing the case laws relevant to IPR	**K6**

Relationship matrix											
Semester	**Course Code**			**Title of the Course**					**Hours**		**Credits**
3	**25SMS3RM01**			**Common Core (WS):** Intellectual Property Rights (IPR)					**4**		**2**
Course Outcomes	**Programme Outcomes (PO)**					**Programme Specific Outcomes (PSO)**					**Mean Scores of Cos**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO-1	3	3	3	2	3	3	2	3	3	2	2.7
CO-2	3	3	3	2	2	3	3	3	2	2	2.6
CO-3	3	3	3	3	2	3	3	2	3	3	2.8
CO-4	3	3	2	3	2	3	3	2	3	2	2.6
CO-5	3	3	3	2	2	3	3	3	2	3	2.7
CO-6	3	3	3	3	3	3	3	2	3	2	2.8
Mean Overall Score											**2.7 (High)**

Semester	Course Code	Title of the Course	Hours	Credits
3	25PCC3SL03	**Self – Learning:** Cloud Computing	-	1

Course Objectives
To understand the fundamental concepts, history, and evolution of cloud computing
To impart the fundamental principles of cloud architecture
To learn about Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS)
To analyze different cloud deployment models
To identify cloud security threats and mitigation techniques

Unit-I: Cloud Computing Fundamentals

Motivation -NIST Definition-Cloud Computing is Service-Cloud Computing is a Platform –principles- Five essential characteristics- Deployment models -Three Service offering models-cloud ecosystem-requirements-application-benefits and drawbacks.

Unit – II: Cloud Architecture and Management

Introduction-Cloud Architecture-Anatomy of Cloud-Network Connectivity in Cloud-Applications on the cloud-Managing the Cloud Migrating Application to the Cloud.

Unit – III: Cloud Deployment Models

Private Cloud- Public Cloud- Community Cloud- Hybrid Cloud.

Unit – IV: Cloud Service Models

Introduction-Infrastructure as a Service-Platform as a Service Software as a Service- Other Cloud Service Models.

Unit – V: Data Security in Cloud

An introduction to the idea of the Data Security-Current State of the Data Security- Data Security Risk-Content Level Security –Pros and Cons.

Teaching Methodology	E videos, PPT, E Lecture
Assessment Methods	Online Test, Seminar, Library work and Case study methods

Books for Study:

1. Chandrasekaran (2015). Essentials of Cloud Computing, Taylor & Francis Group, U.S.
2. Rajkumar Buyya, James Broberg and Andrzej Goscinski (2011). Cloud Computing Principles and Paradigms, John Wiley & Sons, New Jersey.

Books for References:

1. Miller Michael (2008). Cloud Computing: Web-Based Applications That Change the Way You Work and Collaborate Online, Que Publishing.
2. Beard Haley (2008). Cloud Computing Best Practices for Managing and Measuring Processes for On-demand Computing, Applications and Data Centers in the Cloud with SLAs, Emereo pvt. Ltd.

Websites and eLearning Sources:

1. https://aws.amazon.com/what-is-cloud-computing/
2. https://www.ibm.com/think/topics/cloud-computing
3. https://www.salesforce.com/in/platform/cloud-computing/
4. https://www.redhat.com/en/topics/cloud-computing
5. https://www.coursera.org/learn/introduction-to-cloud

Course Outcomes		
CO No.	**CO-Statements**	**Cognitive Levels (K-Level)**
	On successful completion of this course, the students will be able to	
CO1	Recall the Cloud Fundamentals	**K1**
CO2	Summarize the Requirements, Benefits and Drawbacks of Cloud	**K2**
CO3	Utilize the Cloud Architecture and Management	**K3**
CO4	Analyze the Cloud Deployment Models	**K4**
CO5	Explain the Cloud Services	**K5**
CO6	Predict the Data Security Issues	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**						**Hours**	**Credits**
3	**25PCC3SL03**			**Self – Learning:** Cloud Computing						**-**	**1**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Scores of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO-1	3	2	2	1	2	3	3	2	1	2	2.1
CO-2	3	3	2	2	1	3	3	3	2	2	2.4
CO-3	2	3	3	2	2	2	3	3	2	2	2.4
CO-4	3	3	3	1	2	3	3	3	2	2	2.5
CO-5	2	3	3	2	2	2	3	3	2	2	2.4
CO-6	3	3	2	3	2	3	2	3	2	2	2.5
Average	2.6	2.8	2.5	1.8	1.8	2.6	2.8	2.8	1.8	2	**2.36 (High)**

Semester	Course Code	Title of the Course	Hours	Credits
4	25PCC4CC12	**Core Course – 12:** Business Taxation	6	5

Course Objectives
To Get a better understanding of the Indirect Taxation and Recent developments in Indirect taxes
To Identify the reasons for the levy GST and Identify the Structure of GST.
To Apply the concept of taxable supply, input tax credit and registration procedures and filing of returns as per GST Rules
To Through knowledge on the practical application of Tax Assessment under GST
To Synthesis the taxable event of the levy of Customs duty in India and its Structure.

UNIT I: Indirect Tax Introduction (18 Hours)

Indirect Tax: Introduction - Features –Cannons of taxation - Objectives of Taxation- Types of taxes-Direct and Indirect taxes - Indirect Tax structure-Merits and Demerits of Indirect Taxes-Recent Developments in Indirect Taxes

UNIT II: Goods and Service Tax Act 2016 (18 Hours)

Introduction –-Features – Benefits of GST Act. – Advantages – Disadvantages –important Definitions - Taxable persons – Time of supply - of goods and services – Administrative set up – Classes of officers under Central and State goods and services Tax Act - Appointment of Officers – Powers of officers – Levy and collection of GST – Powers to grant exemption from tax.

UNIT III: GST Registration (18 Hours)

Procedure for registration under Schedule III – Special provisions relating to casual taxable person and non-resident taxable person – Amendment of registration – Cancellation of registration – Revocation of cancellation of registration.

UNIT IV: Assessment under GST (18 Hours)

Assessment types: Self-assessment – Provisional assessment – Scrutiny of returns – Assessment of non-filers of returns – Assessment of unregistered persons –Assessment in certain special cases – Tax Invoice – Credit and Debit Notes – Payment of Tax– Tax Deducted at Source – Electronic Commerce – Definitions - Collection of Tax at source – E-filling.

UNIT V: Customs Act 1962: **(18 Hours)**

Important Definitions — Importance of Customs Duty– Prohibition and exportation of goods detection of illegally imported and exported goods and their prevention - Levy of and exemption from custom duty - Valuation of goods under Customs Act. Clearance of imported goods and exports goods - Draw back - Conditions and Procedure for availing of draw back - Powers on Customs Officers - Search and seizure - Confiscation of goods - Offences and penalties appeals.

Teaching Methodology	Chalk and talk, PPT,
Assessment Methods	Seminar, Snap Test, MCQ

Books for Study:

1. Balachandran, (2019), Indirect Taxation", Sultan Chand & Sons and Kalyani Publishers
2. India.
3. 2.. Taxmann,2025 GST Acts with Rules/Forms & Notifications, Taxmann Publication
4. 3.T.S. Reddy & Y. Hari Prasad Reddy,2024 Business Taxation (Goods and Services Tax - GST), Margham publications
5. 4.Dr. Thomas Joseph Thoomkuzhy, First Edition 2017.GST – The Essentials of Goods and Services Tax, Huimalay Publishing House,

Books for Reference:

1. S.R. Mohapatra and, Pratap Chandra Sahoo(2020)Business Taxation,", Himalaya Publishing House, India.
2. Mehrotra & Goyal (2015), Indirect Taxes, Sahitya Bhavan Publications, Agra.

3. Parameswaran and Viswanatha, Indirect Taxes - GST and Customs Law, (2018), Kavin Publications, Coimbatore.
4. Radhakrishnan, (2013), Indirect Taxation, Kalyani Publishers.
5. Background Material for Goods and Service Tax. July, 2016. National Academy Of
6. Customs Excise and Narcotics.

Websites and eLearning Sources:

1. https://idtc.icai.org/gst-topic-wise-study-material-list.html
2. https://www.gst.gov.in/
3. https://www.gstindia.com/links/
4. https://icmai.in/upload/Students/Syllabus2016/Inter/Paper-11-NEW-GST-Revised.pdf
5. https://www.icsi.edu/media/webmodules/publications/GST%20Practitioner's%20Guide.pdf
6. https://bvbelladlawcollege.org/wp-content/uploads/2022/12/Course-III-Law-of-Taxation.pdf
7. https://www.gst.gov.in/

Course Outcomes		
CO. No.	**CO- Statement** On successful completion of this course, students will be able to	**Cognitive Level (K- level)**
CO-1	Gain better knowledge on Indirect Taxation and Recent developments in Indirect taxes	**K1**
CO-2	Understand process of GST registration, filing and the taxable event of the levy of Customs duty in India and its Structure.	**K2**
CO-3	Apply the practical application of Tax Assessment under GST	**K3**
CO-4	Analyse the concept of taxable supply, input tax credit and registration procedures and filing of returns as per GST Rules	**K4**
CO-5	Evaluate the reasons for the levy GST and Identify the Structure of GST.	**K5**
CO-6	Create and file the GST returns	**K6**

Relationship matrix											
Semester	**Course Code**		**Title of the Course**							**Hours**	**Credits**
4	**25PCC4CC12**		**Core Course – 12:** Business Taxation							**6**	**5**
Course Outcomes	**Programme Outcomes (PO)**					**Programme Specific Outcomes (PSO)**					**Mean Scores of Cos**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO-1	3	3	3	2	3	3	2	3	3	2	2.7
CO-2	3	3	3	2	2	3	3	3	2	2	2.6
CO-3	3	3	3	3	2	3	3	2	3	3	2.8
CO-4	3	3	2	3	2	3	3	2	3	2	2.6
CO-5	3	3	3	2	2	3	3	3	2	3	2.7
CO-6	3	3	3	3	3	3	3	2	3	2	2.8
										Mean Overall Score	**2.7 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
4	25PCC4CC13	**Core Course - 13:** Financial Accounting Package – Tally Prime	4	3

Course Objectives
To Gain and Understand the basic principles and concepts of accounting.
To Provide knowledge of Tally Prime application and Accounting Package
To Apply and practice the various Accounting and Inventory vouchers
To Learn the knowledge on TDS-TCS and VAT Calculations
To Create an GST and maintenance of various reports

UNIT 1: Computerized Accounting – Tally Prime (12 Hours)

Introduction - Features - Process for setting up Tally Prime - Configuration Setup - Application Path Install - Startup - Basics - Bill wise accounts - Tally Prime with Banking and Reports. Accounting Information: - Groups - Ledgers - Financial Problems - Trail Balance - Day book.

UNIT II: Voucher Entries (Accounting Vouchers) (12 Hours)

Contra Vouchers - Payment Vouchers - Receipt Vouchers - Journal Vouchers - Purchase Vouchers - Sales Vouchers - Debit Note Voucher - Credit Note Voucher - Post Dated Cheque Entry - Inventory Vouchers - Optional & Non- Accounting Vouchers - Order Processing Vouchers - Advance Vouchers.

UNIT III: Inventory Information (12 Hours)

Inventory Configuration & Features - Stocks Groups - Stock Category - Stock Items - Unit of Measures - Godowns - Inventory Vouchers - Advanced Accounting & Inventory Features: - Cost Category - Cost Center - Budget - Creation - Alteration - Cheque printing - Scenario Management - Job Costing - VAT, CST, Point of Sale (POS) - Item Cost Tracking - Reorder Level and Reorder Quantity - Multi Address - Reports.

UNIT IV: Statutory masters (12 Hours)

Export - Import data - ODBC connectivity - connecting tally data into MS word document and excel worksheet - Backup - Tax units – Statutory Details – TDS – TCS – VAT Registration - Excise – Registration - Pan/ CIN.

UNIT V: GST and Payroll (12 Hours)

Introduction - GST (Goods and Service Tax)- Creating GST classifications - Updating - Setting - Providing - Recording GST details - Other Scenarios - Payroll Preparations - Features.

Teaching Methodology	Lectures & Classroom Discussions: Explanation of concepts with examples- Hands-on Training- Practical exercises and demonstrations using Tally Prime 5- Workshops & Guest Lectures: Insights from industry experts on best practices
Assessment Methods	Regular tests and assignments to evaluate understanding

Book for Study:

1. Asok, K. N. (2018). *Tally ERP 9 Training Guide.* 4th Revised. BPB Publications.
2. Tally Solutions. (Year). Tally Prime – Official Guide. Publisher.

Books for Reference:

1. (2019). *GST Using Tally*. ERP 9. Tally Education Pvt. Ltd. Sahaj Enterprises.
2. Chheda, R. (2020). *Tally Prime: with All New Features*. Ane Books Pvt. Ltd.
3. Behera, S. R. (Year). Financial Accounting with Tally Prime. Publisher.
4. Nadhani, A. K. (Year). Mastering Tally Prime. Publisher.

Websites and eLearning Sources:

1. https://tallysolutions.com/tally-prime/?srsltid=AfmBOopj7sVccmqKfzfMf2neAL_67c7u_gp3-8Us-F0zuIB_UTgFi-AR
2. https://tallysolutions.com/?srsltid=AfmBOooAnS-IScmtE6GUwhKYLlHmtp6qrQqcs-6yDt5YFblQeIUsEh6c
3. https://www.amazon.in/TallyPrime-GST-Ready-Single-User/dp/B08MR5XY31

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, the students will be able to	**Cognitive Levels (K-Level)**
CO1	Understand the importance of computerized accounting and the role of Tally in modern business environments	**K1**
CO2	Demonstrate the ability to work with accounting information, including the creation and management of groups, ledgers, and financial statements.	**K2**
CO3	Apply VAT, CST, Point of Sale (POS), Reorder Level, Reorder Quantity, Multi-Address features, and generate relevant reports.	**K3**
CO4	Examine the concepts of TDS, TCS, and GST.	**K4**
CO5	Implement payroll preparations in Tally, including understanding and utilizing payroll features.	**K5**
CO6	Explore the application path install, startup basics, and the integration of Tally Prime with banking and reporting	**K6**

Relationship Matrix											
Semester	**Course Code**	**Title of the Course**							**Hours/Week**		**Credits**
4	**25PCC4CC13**	**Core Course - 13:** Financial Accounting Package – Tally Prime							**4**		**3**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	2	3	3	2	3	3	3	2	2	**2.6**
CO2	3	2	2	3	2	2	3	2	2	2	**2.3**
CO3	3	2	2	2	3	2	3	3	3	3	**2.6**
CO4	3	2	3	2	2	2	3	2	2	2	**2.3**
CO5	3	3	3	2	3	3	2	2	2	3	**2.6**
CO6	3	2	3	2	3	3	2	2	3	2	**2.5**
										Mean Overall Score	**2.48 (High)**

Semester	Course code	Title of the Course	Hours/Week	Credits
4	25PCC4CP04	**Core Practical - 4:** Financial Accounting Package - Tally Prime	4	2

Course Objectives
To Extract profit and loss account and balance sheet through ledger account balances and adjustment entries.
To Pass entries for transactions in accounting vouchers with or without stock items.
To Pass entries for transactions requiring special features such as TDS, VAT, CST, GST Cost canters and Payrolls.
To Carry out order processing and maintain accounting records along with inventory records and generate reports.
To Work as an accountant or a storekeeper in the computerized environment of business organizations.

Exercises:

1. Tally Prime Screen - Company creation, Alter, delete, Shut
2. F11: Company Features, F12: Configuration setup
3. Ledger Creation - Single, Multiple (Create, Display, Alter) Group Creation - Single, Multiple (Create, Display, Alter)
4. Final A/Cs with adjustments (Trading, Profit and Loss A/c, Balance Sheet)
5. Income & Expenditure (Non-Trading)
6. Accounting Vouchers
7. Cost / Profit Centre Management: Cost centre, Cost Category
8. Payroll preparation: Salary, Employee benefits, reports
9. Budget & Scenario Management - Maintain Budget and control - Journal Vouchers
10. Inventory Management: Stock Group, Stock Categories, Stock Items and Godown
11. Order processing: Purchase order, Sales order
12. Inventory vouchers, Invoicing, Purchase Management, Sales Management
13. Bills Payable and receivable
14. Accounting books and reports
15. GST (Goods, Services and Tax) - Exercises
16. Income Tax filling & returns - Exercises & overview

Teaching Methodology	Lab demonstration
Assessment Methodology	Practical examination

Course Outcomes		
CO No.	**CO-Statements** On successful completion of this course, the students will be able to	**Cognitive Levels (K-Level)**
CO1	Understand the importance of computerized accounting and the role of Tally in modern business environments	**K1**
CO2	Demonstrate the ability to work with accounting information, including the creation and management of groups, ledgers, and financial statements.	**K2**
CO3	Apply VAT, CST, Point of Sale (POS), Reorder Level, Reorder Quantity, Multi-Address features, and generate relevant reports.	**K3**
CO4	Examine the concepts of TDS, TCS, and GST.	**K4**
CO5	Implement payroll preparations in Tally, including understanding and utilizing payroll features.	**K5**
CO6	Explore the application path install, start-up basics, and the integration of Tally Prime with banking and reporting	**K6**

Relationship Matrix											
Semester	**Course code**		**Title of the Course**						**Hours/Week**		**Credits**
4	**25PCC4CP04**		**Core Practical - 4:** Financial Accounting Package - Tally Prime						**4**		**2**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	2	3	3	2	3	3	3	2	2	**2.6**
CO2	3	2	2	3	2	2	3	2	2	2	**2.3**
CO3	3	2	2	2	3	2	3	3	3	3	**2.6**
CO4	3	2	3	2	2	2	3	2	2	2	**2.3**
CO5	3	3	3	2	3	3	2	2	2	3	**2.6**
CO6	3	2	3	2	3	3	2	2	3	2	**2.5**
Mean Overall Score											**2.48 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
4	25PCC4CC14	**Core Course - 14:** Research Methodology	3	2

Course Objectives
To understand the fundamental concepts of research methodology.
To develop the ability to design and conduct research studies.
To analyse data using appropriate statistical tools.
To interpret and report research findings effectively.
To apply ethical considerations in research practices.

UNIT I: Introduction to Research Methodology (9 Hours)

Meaning and Significance of Research - Types of Research: Exploratory, Descriptive, Experimental, and Analytical - Research Process: Steps in Conducting Research - Research Problem: Identification and Formulation - Review of Literature: Need, Sources, and Techniques - Ethical Considerations in Research - Role of Research in Commerce and Management

UNIT II: Research Design and Data Collection (9 Hours)

Research Design: Definition, Characteristics, and Types - Sampling Design: Methods and Techniques - Primary and Secondary Data Collection - Methods of Data Collection: Questionnaire, Interview, Observation, and Case Study - Measurement and Scaling Techniques - Reliability and Validity in Research- Pre-testing and Pilot Study

UNIT III: Data Analysis and Interpretation (9 Hours)

Data Processing: Editing, Coding, and Tabulation - Descriptive Statistics: Mean, Median, Mode, Standard Deviation - Inferential Statistics: Correlation, Regression, Hypothesis Testing - Parametric and Non-Parametric Tests - SPSS and Other Statistical Tools - Data Interpretation and Report Writing - Graphical Representation of Data

UNIT IV: Hypothesis Formulation and Testing (9 Hours)

Hypothesis: Meaning, Types, and Formulation - Testing of Hypothesis: Steps and Importance - T-test, Chi-Square Test, F-Test, and ANOVA - Factor Analysis and Discriminant Analysis - Errors in Hypothesis Testing - Decision Making in Research - Practical Applications of Hypothesis Testing

UNIT V: Research Reporting and Presentation (9 Hours)

Structure and Components of a Research Report- Referencing Styles: APA, MLA, Chicago - Plagiarism and Academic Integrity - Research Proposal Writing - Presentation Skills for Research Findings - Publishing Research Papers and Articles - Use of AI and Digital Tools in Research

Teaching Methodology	Lectures: Concept explanation and case discussions - Workshops: Hands-on training in research tools - Group Discussions: Collaborative learning and critical analysis - Case Studies: Application of research methods in business scenarios - Presentations: Student-led discussions on research papers.
Assessment Methods	Seminar, Snap Test, MCQ

Books for Study:

1. Kothari, C. R. (2004). Research methodology: Methods and techniques (2nd ed.). New Age International.
2. Krishnaswami, O. R., & Ranganatham, M. (2016). Methodology of research in social sciences. Himalaya Publishing House.
3. Cooper, D. R., & Schindler, P. S. (2014). Business research methods (12th ed.). McGraw-Hill Education.

Books for Reference:

1. Bryman, A. (2015). Social research methods (5th ed.). Oxford University Press.
2. Saunders, M., Lewis, P., & Thornhill, A. (2019). Research methods for business students (8th ed.). Pearson.

3. Sekaran, U., & Bougie, R. (2019). Research methods for business: A skill-building approach (8th ed.). Wiley.

Websites and eLearning Sources:

1. ResearchGate. (n.d.). Discover scientific knowledge and stay connected to the world of science. Retrieved from https://www.researchgate.net
2. Google Scholar. (n.d.). Search scholarly literature across disciplines. Retrieved from https://scholar.google.com
3. Coursera. (n.d.). Research methodology courses. Retrieved from https://www.coursera.org
4. MIT Open Course Ware. (n.d.). Research methods. Retrieved from https://ocw.mit.edu
5. Springer Link. (n.d.). Find and access scholarly research articles. Retrieved from https://link.springer.com

Course outcomes		
CO No.	**CO-Statements**	**Cognitive Levels (K-Level)**
	On successful completion of this course, the students will be able to	
CO1	Recall and describe the fundamental concepts of research methodology.	**K1**
CO2	Explain the steps involved in designing and conducting a structured research study.	**K2**
CO3	Apply appropriate statistical tools for data analysis.	**K3**
CO4	Analyse and interpret research findings to draw meaningful conclusions.	**K4**
CO5	Evaluate research reports while adhering to ethical guidelines.	**K5**
CO6	Create and implement digital and AI tools in modern research practices.	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**					**Hours/Week**		**Credits**
4	**25PCC4CC14**			**Core Course - 14:** Research Methodology					**3**		**2**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	2	2	1	3	3	3	2	2	**2.4**
CO2	3	3	3	2	2	3	3	3	2	2	**2.5**
CO3	3	3	3	2	2	3	3	3	2	2	**2.5**
CO4	3	3	2	2	2	3	3	3	2	2	**2.5**
CO5	3	3	3	3	2	3	3	3	2	2	**2.7**
CO6	3	3	2	3	2	3	3	3	2	2	**2.6**
Mean Overall Score											**2.53 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
4	25PCC4CP05	**Core Practical - 5:** Data Analytics for Social Sciences Using SPSS	3	2

Course Objectives
To introduce students to the basics and functionalities of SPSS software.
To provide hands-on training in data entry, management, and analysis using SPSS.
To develop analytical skills for interpreting statistical results.
To familiarize students with descriptive and inferential statistical techniques.
To enable the application of SPSS in research projects and real-world data analysis.

Practical Exercises

1. Data entry and variable definition in SPSS.
2. Performing descriptive statistics and generating graphs.
3. Conducting independent and paired sample t-tests.
4. Executing one-way ANOVA and interpreting results.
5. Running Pearson correlation analysis.
6. Performing simple linear regression and analyzing outputs.
7. Conducting logistic regression on binary data.
8. Running factor analysis for data reduction.
9. Conducting reliability analysis using Cronbach's alpha.
10. Preparing a comprehensive SPSS analysis report with interpretations.
11. Formatting tables and charts for reports
12. Writing interpretation of results for research papers
13. Ethical considerations in data analysis
14. Understanding assumptions and limitations
15. Final project: Complete data analysis and reporting

Teaching Methodology	Interactive demonstrations and tutorials on SPSS interface and functions. - Hands-on practice sessions with real datasets - Group projects involving data analysis and interpretation - Case study analysis to understand practical applications of SPSS -Assignments and quizzes to reinforce learning and practical skills.
Assessment Methods	Seminar, Snap Test, MCQ

Books for Study:

1. Pallant, J. (2020). *SPSS Survival Manual* (7th ed.). McGraw-Hill Education.
2. Field, A. (2018). *Discovering Statistics Using IBM SPSS Statistics* (5th ed.). SAGE Publications.
3. George, D., & Mallery, P. (2020). *IBM SPSS Statistics 26 Step by Step: A Simple Guide and Reference* (16th ed.). Routledge.

Books for Reference:

1. Kinnear, P. R., & Gray, C. D. (2009). *SPSS 16 Made Simple*. Psychology Press.
2. Norušis, M. J. (2012). *IBM SPSS Statistics 19 Guide to Data Analysis*. Pearson Education.

Websites & eLearning Sources:

1. IBM. (n.d.). *SPSS Statistics Documentation*. https://www.ibm.com/support/pages/spss-statistics-documentation
2. Laerd Statistics. (n.d.). *SPSS Tutorials and Resources*. https://statistics.laerd.com/
3. UCLA Institute for Digital Research and Education. (n.d.). *SPSS Resources*. https://stats.idre.ucla.edu/spss/
4. Coursera – *Statistical Analysis with SPSS* (https://www.coursera.org/learn/statistical-analysis-spss)
5. LinkedIn Learning – *SPSS Statistics Essential Training* (https://www.linkedin.com/learning/)
6. Udemy – *Mastering SPSS for Beginners* (https://www.udemy.com/)

Course outcomes		
CO No.	CO-Statements On successful completion of this course, the students will be able to	Cognitive Levels (K-Level)
CO1	Recall SPSS interface features and basic functions	K1
CO2	Explain statistical concepts and their applications in SPSS	K2
CO3	Apply SPSS tools for data entry, cleaning, and basic analysis	K3
CO4	Analyse datasets using descriptive and inferential statistical methods.	K4
CO5	Evaluate the appropriateness of statistical tests and interpret the results.	K5
CO6	Create comprehensive reports and presentations based on SPSS outputs.	K6

Relationship Matrix											
Semester	Course Code			Title of the Course						Hours/Week	Credits
4	25PCC4CP05			**Core Practical - 5:** Data Analytics for Social Sciences Using SPSS						3	2
Course Outcomes	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	3	3	2	2	1	3	3	3	2	2	2.4
CO2	3	3	3	2	2	3	3	3	2	2	2.5
CO3	3	3	3	2	2	3	3	3	2	2	2.5
CO4	3	3	2	2	2	3	3	3	2	2	2.5
CO5	3	3	3	3	2	3	3	3	2	2	2.7
CO6	3	3	2	3	2	3	3	3	2	2	2.6
Mean Overall Score											2.53 (High)

Semester	Course Code	Title of the Course	Hours	Credits
4	25PCC4ES03A	**Discipline Specific Elective - 3:** Transformative Applications of AI	4	3

Course Objectives
To understand the fundamentals evolution, and ethical considerations of AI.
To explore AI applications in business, commerce, finance, and supply chain management.
To analyze the role of AI in healthcare, education, and personalized learning
To examine AI-driven marketing, social media strategies, and customer engagement
To evaluate AI's impact on governance, cyber security, legal systems, and public services.

UNIT I: INTRODUCTION TO AI AND ITS APPLICATIONS (12 Hours)

Definition and Evolution of AI-AI vs. Traditional Computing-AI Technologies: Machine Learning, Deep Learning, NLP, Robotics-AI in Automation and Decision-Making-Challenges and Ethical Considerations in AI-AI Trends and Future Scope

UNIT II: AI IN BUSINESS AND COMMERCE (12 Hours)

AI in E-Commerce & Retail: Recommendation Systems (Amazon, Netflix)-Chatbots & Virtual Assistants (Siri, Alexa, Google Assistant)-Customer Sentiment Analysis-AI in Finance & Banking: Fraud Detection-Credit Scoring & Risk Assessment-Algorithmic Trading-AI in Supply Chain & Logistics-Demand Forecasting-Route Optimization & Autonomous Delivery

UNIT III: AI IN HEALTHCARE & EDUCATION (12 Hours)

AI in Medical Diagnosis & Imaging (X-ray, MRI Analysis)-AI-Powered Drug Discovery-AI in Personalized Healthcare & Wearable Technology-AI in Education & E-Learning: Personalized Learning & Adaptive Testing-AI Tutoring Systems (Khan Academy AI, Duolingo)-AI for Exam Proctoring & Student Engagement.

UNIT IV: AI IN MARKETING & SOCIAL MEDIA (12 Hours)

AI-Powered Digital Marketing-AI in Social Media Ad Targeting (Facebook, Google Ads)-Sentiment Analysis & Trend Prediction-AI for Content Creation & SEO Optimization-AI in Customer Relationship Management (CRM)-AI in Gaming & Entertainment (Deep fake, Procedural Content Generation)

UNIT V: AI IN GOVERNMENT, LAW, AND SECURITY (12 Hours)

AI in Smart Cities & Traffic Management-AI in Cyber security & Fraud Prevention-AI in Law & Legal Document Analysis-AI & Automation in Public Services-Ethical & Social Implications of AI-AI Governance & Regulations

Teaching Methodology	Lectures & Interactive Sessions (Concepts of research & statistics) - Workshops & Hands-on Training (Data collection & analysis using SPSS/Excel) - Case Study Analysis (Real-world commerce research problems) - Group Discussions & Peer Review (Developing critical thinking) - Project Guidance & Mentoring (One-on-one sessions)
Assessment Methods	Seminar, Snap Test, MCQ

Books for Study:

1. Stuart Russell & Peter Norvig, *"Artificial Intelligence: A Modern Approach"*, 4th edition, Published by Pearson,2021,
2. Elaine Rich & Kevin Knight, *"Artificial Intelligence"*, Tata McGraw-Hill, ISBN-10: 9780070087705, ISBN-13: 978-0070087705, 3rd Edition, McGraw Hill Education

Books for Reference:

1. **Tom Taulli**, *"Artificial Intelligence Basics: A Non-Technical Introduction"*, Apress.
2. **Francois Chollet**, *"Deep Learning with Python"*, Manning Publications.
3. **Nick Bostrom**, *"Superintelligence: Paths, Dangers, Strategies"*, Oxford University Press.

Online Resources:

- **SWAYAM/NPTEL:** AI Courses
- **Coursera:** AI for Business, AI for Everyone (by Andrew Ng)
- **Udacity:** AI for Beginners

YouTube Channels:

- Edureka: AI Full Course
- MIT OpenCourseWare: AI & ML Lectures
- Simplilearn: AI and Deep Learning

CO. No	CO Statements	Cognitive Level (K- level)
CO1	**Ability to** understand AI concepts, technologies, and ethical considerations	**K1**
CO2	**Ability to** apply AI techniques in business, finance, and supply chain management.	**K2**
CO3	**Ability to** utilize AI solutions in healthcare, education, and personalized learning.	**K3**
CO4	**Ability to** implement AI-driven marketing, social media strategies, and customer engagement tools.	**K4**
CO5	**Ability to** assess AI's role in governance, cybersecurity, legal systems, and public services.	**K5**
CO6	Learn About Cyber Security	**K6**

Relationship matrix											
Semester	**Course Code**			**Title of the Course**						**Hours**	**Credits**
4	**25PCC4ES03A**			**Discipline Specific Elective - 3:** Transformative Applications of AI						**4**	**3**
Course Outcomes↓	**Programme Outcomes (PO)**					**Programme Specific Outcomes (PSO)**					**Mean Scores of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO-1	3	3	2	2	1	3	2	3	1	1	2.1
CO-2	3	1	3	1	1	3	2	3	1	2	2
CO-3	3	3	3	2	1	3	1	3	1	3	2.3
CO-4	3	1	3	3	2	3	2	3	1	2	2.3
CO-5	3	3	3	1	2	3	2	3	1	2	2.3
CO-6	3	3	2	2	1	3	2	3	1	1	2.1
										Mean Overall Score	2.2 (High)

Semester	Course Code	Title of the Course	Hours	Credits
4	25PCC4ES03B	**Discipline Specific Elective – 3:** Business Logistics Management	4	3

Course Objectives
To Recall the concepts and features of SCM
To Summarize global and Indian perspectives of SCM
To Examine changing logistics environment pertaining to materials management, warehousing and distribution
To Explain strategic warehousing for SCM
To Outline the role of internet in SCM

UNIT I: Supply Chain Management (12 Hours)

Supply Chain Management: Concept, Features, Evolution, Importance, Process and Barriers of Supply Chain Management – Principles, Supply Chain Strategies – Organizations, Coordination, Innovation and Forecasting - Supply chain intermediaries – Concept and Types, Channels of Distribution for Industrial Goods and Consumer Goods, Channels of Distribution at Services Level, Factors for selection of suitable channels.

UNIT II: Global perspectives (12 Hours)

Measuring and analyzing the value and efficiency of Global Supply Chain Networks, Global market forces, Types of global supply chain -Indian Perspectives: Measuring and Analyzing the value and efficiency of Domestic Supply Chain Networks, Economic effects of supply chains - Customer Perspectives: Customer values, Role of customers and Ways of improving customer services in SCM.

UNIT III: Framework of Logistics (12 Hours)

Logistics: Introduction – Positioning of Information in Logistics and Supply Chain Management – Logistics Information System (LIS) - Logistics Management: Concept and Process, Competitive Advantages and Three C's, Changing Logistics Environment, Reverse Logistics, Importance of Inventory Control -Elements of inventory management – Inbound and out bound logistics, Bull- whip effect – distribution and warehousing management - Transport Functions and Participants in Transportation Decisions - Transport Infrastructure-Packaging and Materials Management: Consumer and Industrial Goods Packaging - Factors influencing Materials Planning, Preservation Safety and Measures of Materials Handling.

UNIT IV: SCM-Ware housing (12 Hours)

Introduction– Concepts of Warehousing– Types of Warehouse – Functions of Warehousing– Strategic Warehousing, Warehouse Operations, Ownership Arrangements, Warehouse Decisions, Warehouse Management Systems, Packaging Perspectives, Packaging for Material Handling Efficiency, Materials Handling, Supply Chain Logistics Design: Global Strategic Positioning; Global SC Integration, SC Security, International Sourcing, Distribution control and evaluation.

UNIT V: SCM-Plan (12 Hours)

SCM Plan: Demand Planning, Source of Procurement, Production or Assembly Steps, Sales return of defective or excess goods-Use of Internet in SCM: Role of computer/ IT in supply chain management –E-market places, E-procurement, E-logistics, E-fulfillment -Operative Systems in SCM: Enterprise Resource Planning (ERP), Performance Modeling of supply chains using Markov chains, Inventory Control-Importance, Pareto's Law –Emerging Technologies in Logistics and Supply Chain Management: CRM Vs SCM, Benchmarking

Teaching Methodology	Lectures & Interactive Sessions (Concepts of research & statistics) - Workshops & Hands-on Training (Data collection & analysis using SPSS/Excel) - Case Study Analysis (Real-world commerce research problems) - Group Discussions & Peer Review (Developing critical thinking) - Project Guidance & Mentoring (One-on-one sessions)
Assessment Methods	Seminar, Snap Test, MCQ

Books for Study:

1. Christopher Martin, "Logistics and Supply Chain Management" (2016) 5th Edition, FT Publishing International, India
2. Chopra, Sunil, Meindl, Peter and Kalra, D.V.; Supply Chain Management: Strategy, Planning and Operation; Pearson Education Pvt. Ltd, Noida

Books for Reference:

1. Sahay, B.S., Supply Chain Management, 2nd Edition; Macmillan Publishers India
2. Ballou, R.H. Business Logistics Management. Prentice-Hall Inc.
3. Bowersox D. J., Closs D. J, Bixby Cooper. M., Supply Chain Logistics Management, (2002), 9th Edition, McGraw-Hill Higher Education, Noida

Websites and eLearning Sources:

1. http://www.wisdomjobs.com/e-universit/production-and-operations-management-tutorial-295/principles-of-material-handling-9576.html
2. http://www.marketing91.com/logistics-activitiesw/
3. https://www.fcbco.com/services/warehouse-strategies.
4. https://cleartax.in/s/just-in-time-jit-inventory-management

CO No.	Course Outcomes CO-Statements On successful completion of this course, the students will be able to	Cognitive Levels (K-Level)
CO1	Recall the concepts and features of SCM	**K1**
CO2	Summarize global and Indian perspectives of SCM	**K2**
CO3	Examine changing logistics environment pertaining to materials management, warehousing and distribution	**K3**
CO4	Explain strategic warehousing for SCM	**K4**
CO5	Outline the role of internet in SCM	**K5**
CO6	Understand the transport functions	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**				**Hours**			**Credits**
4	**25PCC4ES03B**			**Discipline Specific Elective – 3:** Business Logistics Management				**4**			**3**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Scores of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	3	2	1	3	2	3	2	3	**2.5**
CO2	2	3	3	2	2	2	3	2	1	3	**2.3**
CO3	3	2	3	2	2	3	2	2	2	2	**2.3**
CO4	3	3	2	2	2	3	3	3	2	3	**2.6**
CO5	2	3	3	2	1	3	3	2	2	3	**2.4**
CO6	2	3	3	2	1	3	3	2	2	3	**2.4**
										Mean Overall Score	**2.4 (High)**

Semester	Course Code	Title of the Course	Hours/Week	Credits
4	25PCC4PW01	Project (Commerce)	6	3

Course Objectives
To Understand the fundamentals of research methodology and project work.
To Identify relevant research problems in commerce and business studies.
To Apply appropriate statistical and analytical tools using software like SPSS.
To Analyze data, interpret findings, and derive meaningful conclusions.
To Develop a structured research report and present findings effectively.

Unit 1: Introduction to Research and Project Work (18 Hours)

Research concepts and significance in commerce - Types of research: Qualitative & Quantitative - Selection of research topics and problem identification -Literature review techniques

Unit 2: Research Design & Data Collection (18 Hours)

Research design: Exploratory, Descriptive & Experimental - Sampling techniques and methods -Data collection tools: Questionnaires, Interviews, and Surveys - Ethical considerations in research

Unit 3: Data Analysis & Interpretation (18 Hours)

Introduction to statistical tools - Data processing techniques using Excel/SPSS - Hypothesis testing and interpretation of results - Graphical and tabular representation of data

Unit 4: Report Writing & Documentation (18 Hours)

Structure of a research report - Citation styles (APA, MLA) and referencing tools - Plagiarism check and importance of originality -Case study presentations

Unit 5: Presentation & Viva-Voce (18 Hours)

Preparing a research presentation - Effective communication and defence of findings - Handling Q&A during project viva - Evaluation criteria and feedback implementation

Teaching Methodology	Lectures & Interactive Sessions (Concepts of research & statistics) - Workshops & Hands-on Training (Data collection & analysis using SPSS/Excel) - Case Study Analysis (Real-world commerce research problems) - Group Discussions & Peer Review (Developing critical thinking) - Project Guidance & Mentoring (One-on-one sessions)
Assessment Methods	Seminar, Snap Test, MCQ

Books for Study:

1. Kothari, C. R., & Garg, G. (2019). *Research Methodology: Methods and Techniques* (4th ed.). New Age International Publishers.
2. Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2013). *Business Research Methods* (9th ed.). Cengage Learning.
3. Gupta, S. P., & Gupta, M. P. (2020). *Business Statistics* (18th ed.). Sultan Chand & Sons.
4. Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research Methods for Business Students* (8th ed.). Pearson Education

Books for Reference:

1. Cooper, D. R., & Schindler, P. S. (2014). Business Research Methods (12th ed.). McGraw-Hill Education.
2. Sekaran, U., & Bougie, R. (2016). *Research Methods for Business: A Skill-Building Approach* (7th ed.). Wiley.
3. Berenson, M. L., Levine, D. M., & Szabat, K. A. (2018). *Basic Business Statistics: Concepts and Applications* (14th ed.). Pearson Education.

Websites & E-learning Sources:

1. Coursera – Offers courses in Business Analytics & Research Methods.

2. edX – Provides courses in Quantitative Data Analysis and related fields.
3. Google Scholar – A comprehensive database for research papers and literature reviews.
4. SPSS Tutorials – Guides and tutorials for data analysis using SPSS.
5. Scribbr – Resources for citation, plagiarism checks, and academic writing.

Course outcomes		
CO No.	**CO-Statements**	**Cognitive Levels (K-Level)**
	On successful completion of this course, the students will be able to	
CO1	Recall key research concepts, methodologies, and data analysis techniques.	**K1**
CO2	Explain various research approaches and their relevance in commerce.	**K2**
CO3	Apply statistical tools and software for data processing and interpretation.	**K3**
CO4	Examine data trends, compare research findings, and derive insights.	**K4**
CO5	Assess the reliability and validity of research data and reports.	**K5**
CO6	Develop a structured project report and present research findings effectively.	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**						**Hours**	**Credits**
4	**25PCC4PW01**			Project (Commerce)						**6**	**3**
Course Outcomes	**Programme Outcomes (POs)**					**Programme Specific Outcomes (PSOs)**					**Mean Score of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO1	3	3	2	2	1	3	3	3	2	2	**2.4**
CO2	3	3	3	2	2	3	3	3	2	2	**2.5**
CO3	3	3	3	2	2	3	3	3	2	2	**2.5**
CO4	3	3	2	2	2	3	3	3	2	2	**2.5**
CO5	3	3	3	3	2	3	3	3	2	2	**2.7**
CO6	3	3	2	3	2	3	3	3	2	2	**2.6**
Mean Overall Score											**2.53 (High)**

Evaluation Components

Component	Marks Allocation	Description
Proposal & Problem Identification	**10 Marks**	Clarity of research problem, objectives, feasibility, and literature review.
Research Methodology	**15 Marks**	Appropriateness of research design, data collection methods, and sampling techniques.
Data Collection & Analysis	**20 Marks**	Accuracy, use of analytical tools (SPSS, Excel, etc.), and interpretation of results.
Report Writing & Documentation	**20 Marks**	Organization, coherence, referencing (APA format), originality, and plagiarism check.
Presentation & Viva-Voce	**25 Marks**	Clarity, confidence, handling of Q&A, critical thinking, and defense of findings.
Overall Project Quality & Contribution	**10 Marks**	Practical relevance, innovation, application of concepts, and real-world impact.

Grading System

Marks Range	Grade	Description
90 – 100	O (Outstanding)	Exceptional work with in-depth analysis and presentation.
80 – 89	A+ (Excellent)	Well-structured, strong methodology, and high analytical depth.
70 – 79	A (Very Good)	Good research work with a few minor improvements needed.
60 – 69	B+ (Good)	Satisfactory work with moderate research depth.
50 – 59	B (Average)	Basic research with some gaps in analysis or presentation.
Below 50	F (Fail)	Needs significant improvement and may require resubmission.

Semester	Course Code	Title of the Course	Hours	Credits
4	25PCC4CE01	Comprehensive Examination	-	2

Course Objectives
To know the concept and gain knowledge On Financial management and banking and insurance
To enlighten the concepts of managerial skills and cost accounting and compute various material control techniques, Labour, overheads and marginal costing techniques
To know the concept and gian knowledge on operations research and python programming
To apply concepts and principles of Labour legislation, Advanced corporate Accounting and Big Data Analysis
To analyze the concept of Organizational behaviour, Business taxation and Professional Accounting with TALLY prime

Unit I: Financial Managaement And Banking and Insurance

Functions of Financial management – Ratio analysis – Time Value of Money - capital structure and valuation - theoretical analysis-; EBIT –EPS analysis – cost of capital - techniques of capital budgeting - Dividend policies and decisions- New Era of Banking Digital Banking – Electronic Payment Systems–Electronic Fund Transfer System – Electronic Credit and Debit Clearing – NEFT – RTGS –VSAT–SFMS–SWIFT. Applications of AI in Banking - Importance of AI in banking-cloud banking - Definition and Functions of Insurance–Insurance Contract – Indian Insurance Market - Insurance Regulatory and Development Authority of India Act (IRDA) – Regulations and Guidelines- Risk Management and Control in banking and insurance industries

Unit II: Managerial skills and Cost Accounting Techniques

Strategic thinking – Concepts– Need – Process- Techniques used in Lateral Thinking- Conflict Resolution – Concepts – sources of conflict – role of perception in conflict – steps of Conflict Resolution- Change - Concepts - Facing changes – meaning – characteristics- types of people in facing changes- Steps in Risk Management. Effective decision making – meaning – approaches – methods – steps – Decision making at the work place- Motivation and staying motivated- Functions –Differences between financial, cost accounting and Management accounting--Methods of costing- Elements of costing-cost concept- Preparation of cost sheet. Material Costing – Stock Levels - Wage payment and incentive systems- Classifications of overheads- Computation of Material Variances – Labour Variances – Overhead Variances – Sales Variances- Break-even Point – Profit Volume Ratio

Unit III: Operations Research and Python programming

Operation research: Origin and nature- - methods of deriving solution -Applications: Linear programming formulation of LPP- Hungarian method for optimal solution, Solving unbalanced problem, Traveling salesman problem and assignment problem Transportation: Formulation, solution- Decision-making under certainty- decision making under uncertainty-Maximax- minimax – maximin- CPM and PERT- Game Theory- Features of Python- Identifiers- Reserved Keywords - Variables - Comments in Python- Loops – Nested Loops – Types of Loops- Built-in Modules - Creating Modules – import Statement - Locating Modules- File Handling: Opening a File - Closing a File - Writing to a File - Reading from a File - File Methods

Unit IV: Labour legislation, Advanced corporate Accounting and Big Data Analysis

Factories Act `1948- Definition - Provision's relating to health, safety, welfare, working hours, leave- Employer's liability for compensation- amount of compensation method of calculating wages- eligibility for bonus and payment of bonus- EPF Features- schemes under EPF-Share capital –Amalgamation and absorption –Liquidation of company - Big Data Overview-Features of R –model development and algorithm –classifiers in R – text analysis.

Unit V: Organizational behaviour, Business taxation and Professional Accounting with TALLY prime

Organization meaning -Concept of organizational behavior-Importance of organizational behavior- Key elements of organizational behavior- Authority and Responsibility Relationships - Delegation of Authority and Decentralization- Job Performance - Values, Attitudes and Beliefs - Stress Management – Motivation – Early theories, Contemporary theories- Leadership - Styles – Approaches- Management of Innovation -

Entrepreneurial Management- Indirect Tax structure-Merits and Demerits of Indirect Taxes-Recent Developments in Indirect Taxes- Features – Benefits of GST Act.– Advantages – Disadvantages-GST registration –Assessment under GST - Process for setting up Tally Prime- Journal Vouchers- inventory vouchers - Inventory Configuration & Features - Stocks Groups - Stock Category- Export - Import data - ODBC connectivity - connecting tally data into MS word document and excel worksheet- GST (Goods and Service Tax)- Creating GST classifications - Updating - Setting - Providing - Recording GST details - Payroll Preparations - Features.

Books for Study:

1. Prasanna Chandra, "Financial Management", 8th Ed., Tata McGraw Hill India, New Delhi, 2011
2. Indian Institute of Banking and Finance (2021), "Principles & Practices of Banking", 5th Edition, Macmillan Education India Pvt. Ltd, Noida, Uttar Pradesh.
3. Stephen covey ()., 'The Seven Habits of Highly Effective people'
4. Kapoor, V.K., & Kapoor, S. (2022). *OR Techniques for Management.* (9th Ed.). Sultan Chand & Sons.
5. Jeeva Jose and P. SojanLal (2016), "Introduction to Computing and Problem Solving with PYTHON", Khanna Book Publishing Co. (P) Ltd., New Delhi.
6. Kapoor N. D, (2018), revised edition, Elements of Industrial Law, Sultan Chand Publications, New Delhi.
7. Gupta, R. L.& Radhaswamy, M., Advanced Accounts, Sulthan Chand &Sons, New Delhi
8. David Dietrich, Barry Heller, Beibei Yang (2015), *Data Science and Big Data Analytics-discovering, Analyzing, Visualizing and presenting Data*,I st Edition John willey & sons, Inc., Indiana.
9. L.M. Prasad, (2024), *Organizational Behaviour*, Fifth Edition, Sultan Chand &Sons, India
10. Taxmann,2025 GST Acts with Rules/Forms & Notifications, Taxmann Publication
11. Tally Solutions. - Tally Prime – Official Guide. Publisher.

Books for Reference:

1. Khan and Jain, 2023 "Financial Management", 7th Ed., Tata McGraw Hill India, New Delhi 2. PandeyI. M, 2022"Financial Management", 11th Ed., Vikas publication, New Delhi,
2. Sundharam K P M & Varshney P. N., (2020), "Banking Theory, Law and Practice", 20th Edition, Sultan Chand & Sons, New Delhi.
3. S.P. Jain & K.L. Narang: 2024, Cost accounting - Kalyani Publication- New Delhi
4. Sharma S.D., (2020). *Operations Research,* Kedar Nath Ram Nath & Co
5. Kurama, V. (2018). *Python programming: A modern approach*. Pearson Education.
6. Malik P.L., 18th Edition, (2018), Handbook of Labour and Industrial Law by Editorial Staff of SCC
7. Reddy, T.S & Murthy, A, Corporate Accounting, Margham Publications, Chennai
8. Frank Ohlhorst (2013). *Big Data Analytics-Turning Big Data in to Big Money*, I st Edition John Wiley & Sons, Inc., Hoboken, New Jersey.
9. Stephen P. Robbins, Timothy A. Judge, *Organizational Behaviour*, Eighteenth Edition, Pearson Publications, India, 2019.
10. S.R. Mohapatra and, Pratap Chandra Sahoo(2020)Business Taxation, ", Himalaya Publishing House, India.
11. *GST Using Tally*. ERP 9. Tally Education Pvt. Ltd. Sahaj Enterprises

Websites and eLearning Sources:

1. https://www.icai.org/post/sm-intermediate-paper6a
2. https://corporatefinanceinstitute.com/resources/knowledge/finance/fintech-financial-technology
3. 3.https://mrcet.com/downloads/digital_notes/CSE/IV%20Year/CSE%20B.TECH%
4. 20IV%20YEAR%20II%20SEM%20BCT%20(R18A0534)%20NOTES%20Final%20
5. PDF.pdf
6. 4.https://www.icai.org/post/17759
7. https://www.programiz.com/python-programming
8. https://vvgnli.gov.in/sites/default/files/Factories%20Act%2C%201948.pdf
9. SWAYAM: https://swayam.gov.in
10. 8.NPTEL: https://nptel.ac.in/courses/
11. 9..https://www.jsscacs.edu.in/sites/default/files/Department%20Files/introduction%20of%20OB%20unit%201%20%281%29.pdf

Course Outcomes		
CO. No.	**CO- Statement** On successful completion of this course, the students will be able to	**Cognitive Level (K- level)**
CO-1	Understand different types of logical and physical components of a data base, Tally, Components of Storage System Environment	**K1**
CO-2	Assess the concepts of financial management and banking and insurance	**K2**
CO-3	Analyze the various techniques of cost accounting	**K3**
CO-4	Design motivational techniques, understand different types of logical and physical components of a storage infrastructure for job, Laws protecting employees, incentives, rewards & recognitions for motivation.	**K4**
CO-5	Acquire analytical skills	**K5**
CO-6	Create a new format of learning and appear for the various competitive examinations	**K6**

Relationship Matrix											
Semester	**Course Code**			**Title of the Course**						**Hours**	**Credits**
4	**25PCC4CE01**			Comprehensive Examination						**-**	**2**
Course Outcomes↓	**Programme Outcomes (PO)**					**Programme Specific Outcomes (PSO)**					**Mean Scores of COs**
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	
CO-1	3	2	2	3	2	3	2	3	2	2	2.4
CO-2	3	2	2	3	2	2	3	2	2	2	2.3
CO-3	3	2	2	2	3	2	3	2	2	3	2.4
CO-4	3	2	3	2	2	2	3	2	2	2	2.3
CO-5	3	2	3	2	3	2	2	2	2	3	2.4
CO-6	3	2	3	2	3	3	2	2	3	2	2.5
										Mean Overall Score	**2.38 (High)**