

LOYOLA COLLEGE

(AUTONOMOUS) - CHENNAI - 600 034



LEARNING OUTCOMES BASED CURRICULUM FRAMEWORK (LOCF)

B.Com Computer Applications

**Department of
B.Com Computer Applications
(2024 Restructured Curriculum)**



School of Commerce & Economics

PREFACE

In the ever-evolving digital landscape, curriculum restructuring emerges as a pivotal endeavor within the academic sphere. Adaptation to technological advancements, shifts in market dynamics, and the evolving industry landscape is not just a choice but an imperative.

In response to this imperative, the Department of B. Com - Computer Applications embarked on a comprehensive restructuring journey at the onset of the academic year 2023. Collaborating closely with a diverse array of stakeholders, including industry mavens, academic luminaries, esteemed alumni, and discerning students, we meticulously crafted a competency-based syllabus aimed at addressing contemporary challenges while fostering holistic development.

The rationale behind this restructuring effort is underpinned by several fundamental pillars:

- **Applicability:** Ensuring our curriculum remains synchronized with current industry practices and the rapid pace of technological advancements.
- **Employability:** Our primary aim is to equip students with the essential skills and knowledge required to stand out in today's fiercely competitive job market.
- **Innovation:** By integrating cutting-edge technologies and embracing interdisciplinary approaches, we endeavor to nurture creativity and adaptability among our students.
- **Universal Standpoint:** In recognition of the interconnectedness of the modern business landscape, we prioritize the cultivation of cross-cultural competence essential for global success.
- **Future-Readiness:** To prepare our students for the challenges of tomorrow, we focus on honing critical thinking, problem-solving, and adaptability skills, empowering them to navigate uncertainties with confidence.

With these guiding principles, our restructured curriculum is poised to empower students to not only excel in their academic pursuits but also thrive as dynamic and visionary leaders in the fast-paced world of Commerce and Computer Applications. The competency-based framework encompasses foundational transferable skills and specialized competencies tailored to the field of computer

applications. Program goals, objectives, and outcomes have been meticulously delineated to synchronize with the revamped syllabus, ensuring a seamless learning trajectory for students.

The curriculum restructuring is organized into three progressive stages:

1. **Foundational Courses:** Core subjects in Accountancy, Computer Science, Mathematics, Data Analytics and Business Fundamentals lay the groundwork for advanced study in computer applications.
2. **Specialized Tracks:** Students have the flexibility to choose from specialized tracks such as Software Development, Data Analytics, Cybersecurity, and Web Technologies, allowing them to tailor their education according to their career aspirations.
3. **Application Projects and Internships:** Emphasis is placed on practical application through hands-on projects and internships, enabling students to gain real-world experience and enhance their professional skills.

Other key features include: -

- Integration of Emerging Technologies such as Artificial Intelligence, Machine Learning, Block Chain, Digital Accounting, Text Mining and Data Visualization into the course offerings.
- Industry-aligned projects and case studies to provide students with practical insights into real-world challenges.
- Collaboration with leading Commerce and IT companies and research institutions to facilitate internships, guest lectures, and industry mentorship programs.
- Emphasis on soft skills development, including communication, teamwork, and leadership, to complement technical expertise.
- Opportunities for research and innovation through seminars, hackathons, and participation in national and international competitions.

The new syllabus is designed to be agile, adaptive, and responsive to the evolving needs of the industry, ensuring that graduates are well-equipped to thrive in the dynamic field of Commerce and Computer Applications. By fostering a culture of Innovation, Excellence, and Lifelong Learning, the Department of B. Com - Computer Applications is committed to empowering the next generation of business and technology leaders.

VISION AND MISSION OF LOYOLA COLLEGE

VISION

Towards holistic formation of youth, grounded in excellence, through accompaniment to serve the humanity.

MISSION

- To provide inclusive education through an integral and holistic formative pedagogy.

- To promote skills that prepare them for the future.
- To kindle in young minds the spirit of social and environmental justice with a blend of academic excellence and empathy.
- To stimulate critical and conscientious scholarship leading to meaningful and innovative human capital.

CORE VALUES

- Cura Personalis
- Pursuit of Excellence
- Moral Rectitude
- Social Equity
- Fostering solidarity
- Global Vision
- Spiritual Quotient

VISION AND MISSION OF THE DEPARTMENT

B.COM (Computer Applications)

VISION:

We aim to be an outstanding academic excellence centre, generating graduates who effortlessly combine business acumen with sophisticated computing abilities, thus contributing to the global economy and societal well-being.

MISSION:

- ❖ To provide a high-quality academic program that combines business fundamentals with the most recent breakthroughs in computer applications
- ❖ To Facilitate practical application of knowledge through internships, projects, and industry collaborations
- ❖ Develop a worldwide perspective by introducing students to international business principles, cross-cultural knowledge, and global economic trends.
- ❖ To integrate technology into the curriculum in order to better prepare students for the digital challenges of the modern workplace.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

(school of commerce & economics)

PEO 1	Commerce and Technology Integration To provide students with a strong foundation in commerce and computer applications through quality education, equipping them with modern tools, analytical skills, and technical expertise.
PEO 2	Industry-Oriented Curriculum and Learning Environment To continuously upgrade the curriculum and teaching methodologies to align with global business trends and technological advancements, ensuring relevance in the digital economy.
PEO 3	Professional Communication and Leadership Development To create an academic environment that fosters effective communication, teamwork, leadership, and problem-solving skills necessary for success in the corporate world.
PEO 4	Business Ethics, Corporate Responsibility, and Sustainability To embed ethical values, corporate social responsibility, and sustainability practices in commerce and technology, preparing students to be responsible professionals.
PEO 5	Entrepreneurial Mindset and Career Readiness To emphasize hands-on training, professional skill development, and entrepreneurial mindset, enabling students to build successful careers and adapt to evolving industry trends.
PEO 6	Innovation and Analytical Thinking To nurture analytical thinking, creativity, and a research-oriented approach for developing innovative solutions in business, finance, and technology-driven environments.

PROGRAMME OUTCOMES (POs)

(SCHOOL OF COMMERCE & ECONOMICS)

PO1	Commerce and Computer Applications Knowledge: Students will acquire comprehensive knowledge in commerce, finance, and computer applications, enabling them to become proficient professionals in business and technology...
PO2	Effective Communication, Teamwork, and Leadership: Students will enhance their communication skills, develop teamwork abilities, and cultivate leadership qualities to excel in corporate and entrepreneurial environments.
PO3	Analytical Skills Critical Thinking, Problem Solving: Students will demonstrate critical thinking, analytical reasoning, and problem-solving abilities to address business, financial, and technological challenges effectively.
PO4	Research Skills and Technological Adaptability: Students will develop research aptitude and analytical abilities to understand business trends, leverage technological advancements, and support data-driven decision-making.
PO5	Digital Literacy and Self-directed Learning: Students will acquire digital proficiency and engage in self-directed learning, equipping themselves with the latest technological tools for professional growth and innovation.
PO6	Professional Skills, Entrepreneurship, and Lifelong Learning: Students will gain industry-relevant skills, foster an entrepreneurial mindset, and embrace lifelong learning to adapt to the evolving business and IT landscape.
PO7	Industry Readiness and Employability Skills: Students will develop practical expertise, industry exposure, and employability skills to meet the demands of the corporate sector, ensuring a smooth transition into the professional world.

PROGRAMME SPECIFIC OUTCOMES (PSOS)

Upon successful completion of B. Com (Computer Applications) the students will be able to

PSO 1	Gain a comprehensive understanding of commerce and computer applications within a global context.
PSO2	Enhance critical thinking abilities to effectively function as business analysts and accounting professionals.
PSO3	Utilize modern analytical tools to interpret and analyse data for addressing complex business challenges.
PSO4	Execute Descriptive, Predictive, and Prescriptive analytics on structured, semi-structured, and unstructured data sets.
PSO5	Bridge theoretical concepts with hands-on experience to meet current industry standards and demands.

RESTRUCTURED UG CURRICULUM 2024 – B.COM (COMPUTER APPLICATIONS)

	I	II	III	IV	V	VI	Hr	Cr
PART I: Ability Enhancement Course (AEC-1)	GL 4(2)	GL 4(2)					8	4
PART II: Ability Enhancement Course (AEC-2)	GE 4(2)	GE 4(2)					8	4
PART III: Discipline Specific Core (DSC)	MC 12(12)	MC 12(12)	MC 23(23)	MC 23(23)	MC 24(24)	MC 20(20)	114	114
Discipline Specific Elective (DSE)				ME 5(5)	MS 2(2)		7	7
Skill Enhancement Course (SEC)					RC 4(4)	MS 10 (9)	14	13
		IN (2)		IN (2)				4
	AR 5(3)	AR 5(3)	AR 5(3)	AO			15	9
		MOOC/ SS*	MOOC/ SS*	MOOC/ SS*	MOOC/ SS*			
PART IV: Generic Elective Course (GEC) (CD - Cross disciplinary)	CD (BT AT/N ME) 2(2)	CD (BT/ AT/NME) 2 (2)	CD (BT/ AT/NM E)	CD (BT/IT/ AT/NM E)			4	4
	FC 3 (1)	FC 3 (2)	FC 2 (1)	FC (EVS) 2(1)			10	5
PART V: Life Skills (LSK)		CC (1) *		CC (1) *		CC (1) *		3
		OR (1) *	OR *					1
Hours/Credits	30(22)	30(27)	30(27)	30(32)	30(30)	30(30)	180	168

➤ **GL-** GL-General Language

➤ **GE-**General English

➤ **MC-**Major Core; **AR-**Allied Required; **AO-**Allied Optional; **ME-**Major Elective; **MS-**Major Skill; **IN-**Internship; **SS-**Self Study; **CD-**Cross Disciplinary; **RC-**Research and Competency Skill; **MOOC-**Massive Open Online Course

➤ **BT-**Basic Tamil; **AT-**Advanced Tamil; **NME-**Non-Major Elective; **FC-**Foundation Course

➤ **CC-** Co-curricular Activities; **OR-**Outreach.

DEPARTMENT OF B. COM (Computer Applications)
OVERALL COURSE RESTRUCTURED- Effective from June 2024

SEM	Sub Code	Course Title	T/L/P	Category	Cr	Hrs
I	UFR1GL04/05	General Language (French)	T	GL	2	4
I	UEL1GE01	Academic Writing (English)	T	GE	2	4
I	UCC1MC01	Financial Accounting	T	MC	6	6
I	UCC1MC02	Excel for Managers	L	MC	6	6
I	UAF1AR01	Business Mathematics and Statistics	T	AR	3	5
I	UHE1FC01	Personality Development	T	FC	1	3
I	UTL1AT01	Other Language	T	NME	2	2
Total Credits					22	30
II	UFR2GL04/05	General Language (French)	T	GL	2	4
II	UEL2GE01	Presentation Skill (English)	T	GE	2	4
II	UCC2MC01	Digital Accounting	L	MC	6	6
II	UCC2MC02	Data base management system (DBMS)	L	MC	6	6
II	UAF2AR01	Principles of Management	T	AR	3	5
II	UHE2FC01	Life Issues and Coping strategies	T	FC	2	3
II	UTL2AT01	Other Language	T	NME	2	2
II	UCC2IN01	Internship – I	T	IN	2	

II	CS2OR01	Community Service – Rural Camp (Outreach)	-	ORA	1	-
II	UCC2CC01	Academic societies	-	CC	1	-
Total Credits					27	30
III	UCC3MC01	Corporate Accounting	T	MC	6	6
III	UCC3MC02	Marketing Management	T	MC	5	5
III	UCC3MC03	Logistics and supply chain management	T	MC	6	6
III	UCC3MC04	Data visualization with Tableau /Power BI	L	MC	6	6
III	UAF3AR01	Business Analytics	T	AR	3	5
III	UHE3FC01	Social Awareness	T	FC	1	2
Total credits					27	30
IV	UCC4MC01	Advanced Corporate Accounting	T	MC	6	6
IV	UCC4MC02	Corporate and Business Law	T	MC	5	5
IV	UCC4MC03	Python Programming for Analytics	L	MC	6	6
IV	UCC4MC04	Business Economics	T	MC	6	6
IV	UCC5ME01	Entrepreneurship & Design thinking	T	ME	5	5
IV	UCC4ME02	Financial analytics	T			
IV	UHE4FC01	Environmental Studies	T	FC	1	2
IV	UCC4CC01	Academic Societies	-	CC	1	-
IV	UCC4IN01	Internship – II	-	IN	2	-

		Total Credits			32	30
V	UCC5MC01	Financial Management	T	MC	6	6
V	UCC5MC02	Income Tax Law and Practice	T	MC	6	6
V	UCC5MCO3	Elements of cost accounting	T	MC	6	6
V	UCC5MC04	Machine Learning with Python Programming	L	MC	6	6
V	UCC4MS01	Professional Competency	T	MS	2	2
V	UCC5RC01	Research Methodology	T&P	RC	4	4
Total Credits					30	30
VI	UCC6MC02	Human Resource Management	T	MC	5	5
VI	UCC6MC03	Management Accounting	T	MC	5	5
VI	UCC6MC04	Advanced Analytics with Python Programming	L	MC	5	5
VI	UCC6MC05	Modern Banking	T	MC	5	5
VI	UCC4MS01	Audit & Assurance	T	MS	4	5
VI	UCC6MS01	Port Folio Management	T	MS	5	5
VI	UCC6CC01	Academic Societies		CC	1	-
Total Credits					30	30

COURSE DESCRIPTOR

(Syllabus)

SEMESTER I, II III IV V & VI

Course Code	UCC1MC01
Course Title	Financial Accounting
Credits	06
Hours/Week	06
Category	MC
Semester	I
Regulation	2024

Course Overview

1. Introduces a wide range of accounting concepts used by various businesses.
2. Enables the students to gain knowledge about accounting for branches, departments, and partnership firms.
3. Comprehend the essentials of depreciation and Hire purchase system.
4. Understand & compute the amount of claims for loss of stock & loss of Profit.
5. Empowers the students for real-world accounting practices and compliance requirements.

Course Objectives

1. Understand the financial accounting concepts in detail. Analyze various accounts prepared and their uses in departments and branches.
2. Learn various methods of Depreciation accounting and Insurance claims.
3. Acquire knowledge in the accounting methods used by partnership firms and Hire purchase.

Prerequisites Basic knowledge about Financial Accounting

SYLLABUS

UNIT	CONTENT	HOURS	COs	COGNITIVE LEVEL
I	Introduction to financial accounting- Basic Accounting Concepts and Conventions -Various business entities – Journal, Ledger, Preparation of	15	CO1 CO2 CO3	K1, K2, K3 K4, K5, K6

	Trial Balance – Preparation Final Accounts of Sole trading concern. Accounts of Non-trading Organization.			
II	Meaning, Need and Advantages of Fire Insurance- Special terminologies in Fire Insurance Claims – Insurer, Insured, Premium, Salvage, Insurance Policy, Sum Assured, Under Insurance, over insurance Average Clause, Claim. Problems on Ascertainment of Fire Insurance Claim including problems on abnormal line of goods	14	CO1 CO2 CO3	K1, K2, K3 K4, K5, K6
III	Depreciation – Meaning – Causes – Types – Straight Line Method – Written Down Value Method – Change of method of providing depreciation - Hire Purchase System – Default and repossession – Hire Purchase Trading Account – Instalment System – Calculation of profit	15	CO1 CO2 CO3	K1, K2, K3 K4, K5, K6
IV	Meaning of Branch Accounts -Objectives and Advantages of Branch Accounting Types of Branches –Independent Branches and Foreign Branches-Methods of maintaining books of accounts by the Head Office –Debtors System- Departmental Accounting – Basis of Allocation of Expenses – Calculation of profit – Inter- Departmental Transfer at Cost or Selling Price	17	CO1 CO2 CO3	K1, K2, K3 K4, K5, K6
V	Partnership Accounts– Introduction- features- Dissolution of Partnership Firm Preparation of Realization Accounts and Capital Accounts- insolvency of a partner- application of the decision in Garner vs. Murray- insolvency of all partner	12	CO1 CO2 CO3	K1, K2, K3 K4, K5, K6

Textbooks:

1. Robert N Anthony, David Hawkins, Kenneth A. Merchant, (2017) Accounting: Text and Cases, Mc Graw-Hill Education, 13th Edition
2. Gupta, R.L & Gupta, V.K, Advanced Accounting, Sulthan Chand & Sons, New Delhi.
3. Jain & Nsarang, Financial Accounting, Kalyani Publishers, New Delhi.
4. Reddy, T. S & Murthy, A. Financial Accounting, Margham Publications, Chennai.

Web Resources:

1. www.accountingcoach.com.
2. www.accountingstudyguide.com
3. www.futureaccountant.com
4. www.onlinelibrary.wiley.com

Course Outcomes (COs) and Cognitive Level Mapping

COs	CO Description	Bloom's Level
CO1	Evaluate the wide understanding of financial accounting difficulties, including the capacity to handle their complexities and variations.	K1, K2
CO2	Establish the preparation of financial statement of manufacturing and non- manufacturing entities of sole proprietors.	K3 ,K4
CO3	Analyze translation gains and losses, Recognize, measure and analyze the effects of financial instruments on the financial statements.	K5, K6

Course Code	UAF1AR01
Course Title	Business Mathematics & Statistics
Credits	03
Hours/Week	05
Category	AR
Semester	I
Regulation	2024
Course Overview 1. Comprehensive foundation in mathematical concepts for business, engineering, and computer science. 2. Five units covering fundamental topics: Set Theory, Matrices and Determinants, Vector Algebra, Statistics and Graphs, and Permutation and Combination. 3. Equips students with essential mathematical skills applicable in academic and professional settings.	
Course Objectives 1. To gain a comprehensive understanding of mathematical principles essential for business decision-making. 2. To apply theoretical knowledge and statistical techniques to analyze quantitative data, facilitating informed decision-making in real-world business scenarios. 3. To develop proficiency in interpreting statistical analysis results, enabling the extraction of actionable insights from complex datasets.	

4. To assess the effectiveness of different statistical methods and tools in addressing specific business challenges, enhancing decision-making processes.
5. To Utilize statistical analysis, and data visualization techniques to generate informative reports and presentations.

Prerequisites Understand basic Mathematics and calculation

SYLLABUS

UNIT	CONTENT	HOURS	COs	COGNITIVE LEVEL
	Introduction to Sets, Sets and their Representation, Empty or Void or Null Set, Finite and Infinite sets, Proper and Improper Subset, Power Set, Universal Set, Open and Closed Interval, Semi-Open or Semi Closed intervals, Venn Diagrams, Operations on Sets, Laws of Algebra of Sets.	15	CO1 CO2 CO3	K1, K2, K3 K4, K5, K6
II	Introduction to Matrix, Addition, Subtraction and Multiplication of Matrices, Transpose of a Matrix, System of linear equations, Inverse of a Matrix, Cramer's rule for solution of linear equations, Adjoint of a Matrix, Determinants, Properties of Determinants, Multiplication of two Determinants, Minors and Cofactors.	14	CO1 CO2 CO3	K1,K2, K3 K4, K5, K6
III	Introduction to Vectors, Types of Vectors, Operations on Vectors, Addition of Vectors, Properties of Operation, Multiplication by a scalar, Product and Scalar Product or Dot Product of Two Vectors, Vector Product or Cross Product, Properties of Vector Product.	15	CO1 CO2 CO3	K1, K2, K3 K4, K5, K6

IV	Introduction to Statistics, Scale of Measurement, Frequency Distribution, Measure of Central Tendency, Advantages and Disadvantages of Central Tendencies, Introduction to graphs, Bar Chart, Pie Chart, Histogram, Frequency Polygon, Ogive, Pareto Chart, Stem-and-leaf Chart, Scatter Plot,	15	CO1 CO2 CO3	K1, K2, K3 K4, K5, K6
V	Permutations, working exercises in permutations, introduction of combinations, difference between permutations and combinations. Introduction to Probability, Experiment, Event, Compound Event, Independent and Dependent Events, Mutually Exclusive Events, Equally Likely Events, Marginal, Union, Joint, Conditional Probability.	14	CO1 CO2 CO3	K1, K2, K3 K4, K5, K6

Textbooks:

1. Berenson M.L. and Levine D.M. (1996) Basic Business Statistics, Prentice-Hall, Englewood Cliffs, New Jersey.
2. Fleiss, J. L., Levin, B. and Paik, M. C. (2003). Statistical Methods for Rates and Proportions, Third Edition, John Wiley & Sons, New York.
3. Salkind, N. J. (2007), Statistics for People Who (Think They) Hate Statistics, Thousand Oaks: SAGE Publications.
4. Vohra, N.D. Business Statistics: Text and Problems With Introduction to Business Analytics, (2021), 2nd Edition, McGraw Hill.

Web Resources:

1. www.competitionbureau.gc.ca/epic/site/cb-bc.nsf/en/01288e.html.
2. <https://publications.gc.ca/site/eng/365552/publication.html>
3. www.statcan.gc.ca/daily-quotidien/000216/dq000216b-eng.htm.

Course Outcomes (COs) and Cognitive Level Mapping

COs	CO Description	Bloom's Level
CO1	Demonstrate a comprehensive understanding of mathematical principles crucial for business decision-making.	K1, K2, K3
CO2	Implement theoretical knowledge and statistical techniques effectively to analyze quantitative data, fostering informed decision-making in practical business situations.	K1,K2
CO3	Interpret statistical analysis results proficiently, extracting actionable insights from complex datasets.	K1,K2,K3,K4

Course Code	UCC1MC02
Course Title	Excel for Managers
Credits	06
Hours/Week	06
Category	MC
Semester	I
Regulation	2024
Course Overview 1. Introduction to working with excel and wide range of Excel formulas 2. Understanding and visualizing Data with Excel. 3. Creating Dashboard with Excel. 4. Data Filtering and slicing using Excel and Pivoting. 5. Creating Interactive interface with Excel	
Course Objectives 1. Describe and demonstrate the importance of MS Excel and its functionalities. 2. Identify, interpret, and explain the fundamentals concepts pertaining to Data Visualization and Storytelling. 3. Design, compose and employ the use of different chart and plots under MS Excel for Dashboard building. 4. Create and demonstrate the working of Interactive Dashboards using MS Excel Application. 5. Classify different techniques of Reporting, Sharing and Authorizations used in MS Excel with regards to Dashboards	
Prerequisites	Basic computer knowledge

SYLLABUS				
UNIT	CONTENT	HOURS	COs	COGNITIVE LEVEL
I	Spreadsheet Applications, MS Excel Overview, Advantage and Disadvantages, Introduction to Buzzwords – Dashboards, Reports, Data Visualization, Business Intelligence, Decision Support Systems. Data Visualization, Storytelling and its importance in BI, Visual Perception, Pre-attentive Attributes of Perception, Colour Attributes, High-Precision Judging.	15	CO1 CO2 CO3	K1, K2, K3 K4, K5, K6
II	Tables, Line and Bar Charts, Scatter Charts, Scatter Charts vs Line Charts, Correlation Analysis, Bullet Graphs, Pie Charts, Doughnut Charts, Surface Charts, Radar Charts. Formulas, Help, Operators, Range Operator, Union Operator, Intersection Operator, Conditional Expressions, Boolean Concepts, Filtering and Highlighting, Selecting, Aggregating.	14	CO1 CO2 CO3	K1, K2, K3 K4, K5, K6
III	Banded Region Chart, Creating the Chart, Placing the Chart on Dashboard, Dynamic Legend, Creating Endpoints of the Legend, interpolating between Endpoints and Applying Visual Effects, Rollover Method, Conceptual Model, Implementing Hover Table, Conditional Formatting, Designing Pop-ups and making them follow Mouse.	15	CO1 CO2 CO3	K1, K2, K3 K4, K5, K6
IV	Pivot Table, Four Areas of Pivot Table, Creating Pivot Table, Customizing Pivot Table, Changing Layout, Renaming Fields, Formatting Numbers, Hiding or Showing Data Items, Sorting, Pivot Charts, Conditional Formatting with Pivot Tables. Form Control Fundamentals.	15	CO1 CO2 CO3	K1, K2, K3 K4, K5, K6

V	Combo Box Control, List Box Control, Scroll Bar Control, Spinner Control, Checkbox Control, Buttons, Scroll-able Tables, Highlighting Data Points on Charts, Slicers, Formatting Slicers, Protecting Dashboards and Reports, Securing Access to Workbook, Limiting Access to Specific Worksheet Ranges, Linking Excel to PowerPoint, Distributing Dashboards via PDF, or Web.	14	CO1 CO2 CO3	K1, K2, K3 K4, K5, K6
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Textbooks:

1. Dr Renjini D., 2019, Data Analysis for Business Decisions using Excel, Bharti.
2. Winston, 2019, Microsoft Excel, PHI.
3. Hector Guerrero, 2019, Excel Data Analysis – Model and Simulation, Springer.
4. John Walkenbach, 2016, Excel Bible, Wiley.

Web Resources:

- <https://app.datacamp.com/learn/courses/data-analysis-in-excel>
- <https://www.w3schools.com/EXCEL/index.php>
- <https://excel-practice-online.com>
- <https://www.javatpoint.com/excel-tutorial>

Course Outcomes (COs) and Cognitive Level Mapping

COs	CO Description	Bloom's Level
CO1	Understand basic of excel workflow and functionalities and performing data exploration and visualization with spreadsheets.	K1, K2
CO2	Employ different data visualization techniques with interface for slicing and dicing data for better understanding.	K3, K4

CO3	Creating dashboards in excel and evaluating data with pivot tables and reports and exploring the security function in excel	K5, K6
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Course Code	UCC2MC01
Course Title	Digital Accounting
Credits	06
Hours/Week	06
Category	MC– Lab
Semester	II
Regulation	2024

Course Overview

1. Designed to study the fundamental concepts of digital accounting.
2. Explores the operational functions and financial analysis capabilities in MS Excel.
3. Provides a hands-on explanation of accounting functionalities and principles using Tally Prime.
4. Developing competency skills for reporting GST transactions in Tally.

Course Objectives

On successful completion of the course, students will be able to:

1. Comprehend the importance of digitalized accounting system and the spread sheet in business applications.
2. Familiarize them with the features and functions of a spread sheet.
3. Assess the advanced features in tally prime software.
4. Evaluate the advanced features in tally software and the provisions for various e-filing.

Prerequisite	Basic knowledge on accounting

S.No	Content	Hrs	COs	CL
I	Introduction to MS Excel – Overview of Excel Interface- Data Entry and Formatting -Entering data, Formatting text, numbers, and cells-Basic Functions and Formulas- Understanding basic mathematical operators-basic functions such as SUM, AVERAGE, MAX, MIN- Data Analysis and Visualization-Sorting and filtering data, Creating and modifying charts, conditional formatting.	1 5	CO 1 CO 2 CO 3	K1, K2, K3, K4, K5, K6
II	Advanced Excel Formula- Using logical functions (IF, AND, OR)- Text functions (CONCATENATE, LEFT, RIGHT, MID)-lookup functions (VLOOKUP, HLOOKUP, INDEX, MATCH)-Data Manipulation Techniques- pivot tables for data summarization and analysis-Data validation techniques-Goal Seek and Solver, What-If Analysis Tools-Performing regression analysis.	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
III	Introduction & Accounting Vouchers - Introduction to Accounting Packages – Features of computerized Accounting – Introduction to Tally – creation – alteration and Deletion of company – Company Details – Accounting Groups – Predefined Groups – User defined groups (creation, alteration and deletion) – Ledgers	1 5	CO1 CO2 CO3	K1, K2, K3,

	(Creation, alteration and deletion): Accounting Vouchers - various types of accounting Vouchers and their short cut keys – Voucher entries in double and single entry modes – Day book – Preparation of Final accounts with adjustments and Balance sheet using ledger balances.			K4, K5, K6
IV	Inventory and Cost center and cost categories - Inventory Masters: Creation, alteration and deletion of stock groups, Stock categories, Units of Measure, Godown and stock items - Batch wise details – Bill of materials – Purchase and sales order processing – Pure Inventory Vouchers – Entries in Accounting and Inventory vouchers using stock items. Maintenance of Cost Centers - Enabling Features and Configurations Creation of Cost Categories, Cost Centers and Cost Centre Class Recording Transactions with cost center allocations. Extracting Cost Category Summary and Cost Centre Breakups - Creation of Group - wise and ledger - wise budgets - Viewing variances in financial statements and Trial Balance	18	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
V	GST and Reporting - Introduction and Enabling GST in Tally - Recording GST transactions - Accounting intrastate Supply of Goods and Services - Accounting interstate Supply of Goods and Services - Purchase and Sales Returns of Goods and Services - Input Tax Credit - GSTR - 1 - GSTR - 2 - GSTR - 3B - GSTR - 4 and E-Way Bill Report - Tally Audit - Banking Reconciliation Statement. Split of Company Data – Backup and Restore of Data. Transactions related to Multiple Currencies.	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6

Text Books

1. John, G. (2023). Tally Primer. Joseph's Institute of tally Education, Trichy
2. Learn Tally. ERP 9 with GST and E-way bill, Rajesh Chedda, Ane Books Pvt. Ltd. 3rd Edn.
3. Microsoft Excel 2016 Data analysis and business modeling, Wayne L. Winston, Microsoft.

Suggested Readings

1. John Walkenbach, MS Excel Bible, Wiley Publication, New Jersey, USA.
2. Soumya Ranjan Behera, Learn Tally ERP 9, B.K. Publication Pvt Ltd, Bhubaneswar 2020.
3. Tax Sarthi, GST & Taxation in Tally Prime, Notion Press, Chennai, 2020.
4. Greg Harvey, Excel 2016 for Dummies, Chennai.

Web Resources:

- <https://tallysolutions.com/accounting/accounting-software-india/>
- <https://tallysolutions.com/tally/how-to-create-business-invoices-ontallyprime/>
- <https://tallysolutions.com/tally/easy-analysis-of-business-reports-withtallyprime/>
- <https://tallysolutions.com/features/banking/>

Course Outcomes (COs) and Cognitive Level Mapping

Cos	Outcomes	Cognitive Level
CO 1	Demonstrate comprehension and application of accounting principles at an analytical level to record business transactions accurately using accounting software.	K1, K2
CO 2	Identify and analyze the advances features in tally software and the provisions of tally for various e-filing.	K3, K4
CO 3	Evaluate and develop competency in digitalized format of recording and dealing with various transactions for effective business management.	K5, K6

Course Code	UCC2MC02
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Course Title	Data base management system (DBMS)
Credits	06
Hours/Week	06
Category	MC
Semester	II
Regulation	2024

Course Overview

1. Understanding the concepts and Computing language like SQL and Database handling.
2. Comprehend the intricacies of Databases Management Systems.
3. Hands-on experience on ETL process in DBMS.

Course Objectives

1. To understand the basic concepts and the applications of Database Systems.
2. To master the basics of SQL and construct queries using SQL.
3. To become familiar with the basic issues of Transaction Processing and Concurrency Control.
4. To become familiar with the concepts of Indexing and Hashing.
5. Explain the different types of File Organizations employed with regards to a Database Management System.

Prerequisites

Understanding Data and Descriptive Analysis of Data

SYLLABUS

UNIT	CONTENT	Hrs	COs	COGNITIVE LEVEL
I	Introduction-Database System Applications, Purpose of Database Systems, Views of Data, Data Abstraction, Instances and Schemas, Data Models, Database Languages, DDL, DML, Database Architecture, Database Users and Administrators, Database Design, ER Diagrams, Entities, Attributes and Entity Sets, Relationships and Relationship sets, Integrity Constraints, Views.	15	CO1 CO2 CO3	K1, K2, K3 K4, K5, K6

II	Relational Algebra and Calculus, Selection and Projection, Set Operations, Renaming, Joins, Division, Relational calculus, Tuple Relational Calculus, Domain Relational Calculus, Forms of Basic SQL Query, Nested Queries, Comparison Operators, Aggregate Operators, NULL values, Logical connectives, AND, OR and NOT, Outer Joins, Triggers.	14	CO1 CO2 CO3	K1, K2, K4, K5, K6
III	Problems Caused by Redundancy, Decompositions, Functional Dependencies, Normal Forms, First, Second, Third Normal forms, BCNF, Properties of Decompositions, Loss less Join Decomposition, Dependency Preserving Decomposition, Multi Valued Dependencies, Fourth Normal Form, Join Dependencies, Fifth Normal Form.	15	CO1 CO2 CO3	K1, K2, K3 K4, K5, K6
IV	Transaction Management, Transaction Concept, Transaction State, Implementation of Atomicity and Durability, Concurrent, Executions, Serializability, Recoverability, Implementation of Isolation, testing for serializability, Concurrency Control, Lock, Timestamp Based Protocols, Validation Based Protocols, Recovery, Failure Classification, Storage Structure, Atomicity, Log Based Recovery, Remote Backup Systems.	15	CO1 CO2 CO3	K1, K2, K3 K4, K5, K6
V	File Organization Basics, Sequential File Organization, Heap File Organization, Hash File Organization, B+ File Organization, DBMS Cluster Files, Indexing in DBMS, B+ Trees, Hashing, Static Hashing and Dynamic Hashing, RAID.	14	CO1 CO2 CO3	K1, K2, K3 K4, K5, K6

Textbooks:

- Abraham Silberschatz, 2021, Database System Concepts, McGraw.
- Guy Harrison, 2015, Next Generation Databases: No SQL and Big Data, Apress.

- Ramez Elmasri, Shamkant B. Navathe, 2013, Database Systems, Pearson.
- A. Silberschatz, H. F. Korth, S. Sudarshan, 2006, Database System Concepts, McGraw Hill.
- Raghuram Krishnan, Johannes Gehrke, 2003, Database Management Systems, McGraw Hill.

Web Resources:

- <https://app.datacamp.com/learn/courses/introduction-to-sql>
- <https://www.javatpoint.com/dbms-sql-introduction>
- <https://www.geeksforgeeks.org/structured-query-language/>
- <https://www.tutorialspoint.com/sql/sql-overview.html>

Course Outcomes (COs) and Cognitive Level Mapping

Cos	CO Description	Bloom's Level
CO1	Comprehend the different Data models and different DBMS systems	K1, K2
CO2	Understanding and implementing Relational Algebra in DBMS and using the concept of Joining to Merge different datasets.	K1,K2, K4
CO3	Understanding and Creating Databases on MySQL Workbench and evaluating the SQL Queries and Processes	K1,K2,K3,K5,

Course code	UAF2AR01
Course title	Principles of Management
Credits	03
Hours/Week	05
Category	AR
Semester	II
Regulation	2024

Course Overview:

1. Delve into the core principles underpinning management, encompassing its definition, historical development, and its pivotal role in organizational dynamics.
2. The curriculum encompasses the intricacies of formulating organizational objectives, crafting viable strategies, and devising actionable plans to streamline goal attainment.
3. Investigate the arrangement and coordination of resources within an entity, including role delineation, interpersonal dynamics, and communication frameworks.
4. Examine the multifaceted aspects of leadership, focusing on inspiration, motivation, and adept guidance to foster collective achievement within teams and organizations.
5. Scrutinize methodologies for overseeing progress, assessing performance metrics, and implementing corrective measures to ensure sustained alignment with organizational objectives.

Course Objective:

1. Understand the fundamental principles and theories that underpin management, including their historical development and contemporary relevance.
2. Analyze the different managerial functions, such as planning, organizing, leading, and controlling, to gain a comprehensive grasp of organizational operations.
3. Assess the importance of effective management strategies in attaining organizational objectives and sustaining competitive advantages across varied business landscapes.
4. Investigate the impact of leadership on shaping organizational culture, motivating teams, and facilitating innovation and change.
5. Apply management principles and theories to real-world contexts through case studies, discussions, and practical exercises, enhancing proficiency in problem-solving and decision-making.

Prerequisites		Basic knowledge about business.		
Syllabus				
Unit	Content	Hrs	COs	Cognitive Level
I	Meaning- Definitions – Nature and Scope - Levels of Management – Importance – Management Vs. Administration – Management: Science or Art –Evolution of Management Thoughts – F. W. Taylor, Henry Fayol, Peter F. Drucker, Elton Mayo - Functions of Management - Trends and Challenges of Management. Changing roles and responsibilities of Managers in this 21 st century.	10	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
II	Planning – Meaning – Definitions – Nature – Scope and Functions – Importance and Elements of Planning – Types – Planning Process - Tools and Techniques of Planning – Management by Objective (MBO) Decision Making: Meaning – Characteristics – Types - Steps in Decision Making – Forecasting - Management Redesign – Process Implementation, Modification and Decommission.	13	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
III	Meaning - Definitions - Nature and Scope – Characteristics – Importance – Types - Formal and Informal Organization – Organization Chart – Organization Structure: Meaning and Types - Departmentalization– Authority and Responsibility – Centralization and Decentralization – Span of Management	14	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
IV	Staffing Introduction - Concept of Staffing- Staffing Process – Recruitment – Sources of Recruitment – Modern Recruitment Methods - Selection Procedure – Test-Interview– Training: Need - Types– Promotion – Management Games – Performance Appraisal – Meaning and Methods – 360-degree Performance Appraisal – Hybrid	14	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6

	Work Model - Managing Work from Home [WFH] – Hire & Layoff in Management			
V	Motivation –Meaning - Theories – Communication – Types - Barriers to Communications – Measures to Overcome the Barriers. Leadership – Nature - Types and Theories of Leadership – Styles of Leadership - Qualities of a Good Leader – Successful Women Leaders – Challenges faced by women in the workforce - Supervision. Coordination and Control Coordination – Meaning - Techniques of Coordination. Control - Characteristics - Importance – Stages in the Control Process - Requisites of Effective Control and Controlling Techniques – Management by Exception [MBE].	14	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6

Study Text:

1. Gupta. C.B, -Principles of Management-L.M. Prasad, S. Chand & Sons Co. Ltd, New Delhi.
2. Dinkar Pagare, Principles of Management, Sultan Chand & Sons Publications, New Delhi.

Suggested Readings:

1. R.K. Sharma, Shashi K. Gupta, Rahul Sharma, Business Management, Kalyani Publications, New Delhi.
2. Robbins, S. P., Coulter, M., & DeCenzo, D. A. (2020). Fundamentals of Management. Pearson.

Web resources:

1. <https://hbr.org/topic/management>
2. <https://managementstudyguide.com/>
3. <https://nptel.ac.in/courses/122106031>
4. https://onlinecourses.nptel.ac.in/noc23_mg33/preview
5. https://onlinecourses.swayam2.ac.in/imb19_mg08/preview

Academic Societies/Clubs

Title	AI Machina
Years	I , II, & III (Even Semester)
Credit	1
CLUB OVERVIEW	✚ AI Machina refers to the intersection of artificial intelligence and machine learning, creating intelligent systems that can analyze, learn, and make decisions. ✚ AI Machina is utilized in various industries, including healthcare, finance, and manufacturing, to optimize processes and make data-driven decisions
OBJECTIVES	✚ Increase efficiency and productivity by automating routine and repetitive tasks ✚ Develop AI systems capable of solving complex problems and making decisions. ✚ Create AI systems that can learn from data and adapt to changing environments. ✚ Enhance collaboration between humans and machines for improved outcomes. ✚ Foster AI systems that can contribute to creative processes and innovation. ✚ Prioritize the development of AI technologies that enhance the well-being and quality of life for humans.
LEARNING OUTCOMES	✚ Automation and Efficiency: AI has the potential to automate repetitive tasks, leading to increased efficiency and productivity in various industries. ✚ Innovation: AI can drive innovation by enabling the development of new technologies, products, and services. ✚ Improved Decision-Making: AI systems can analyse vast amounts of data and provide valuable insights, aiding in better decision-making processes.
SOCIETY ACTIVITIES BASED ON TOPIC	✚ Introduction to AI Concepts Provide an overview of basic AI concepts, including machine learning, neural networks, and natural language processing. You can use presentations, videos, or interactive online resources. ✚ AI in Everyday Life • Discuss how AI is already present in students' daily lives, such as in recommendation systems, virtual assistants, and social media algorithms. Encourage them to identify instances of AI in their surroundings. ✚ AI Ethics and Bias Discussion

Engage students in a discussion about the ethical considerations and potential biases in AI systems. Explore real-world examples and encourage critical thinking about fairness and accountability in AI.

 AI Coding Projects:

- Introduce students to basic coding and programming related to AI. Platforms like Scratch, TensorFlow, or PyTorch offer educational resources and tools for beginners.

 AI and Creativity

- Explore the intersection of AI and creativity. Students can experiment with AI-generated art, music, or writing using tools like DeepArt, AIVA, or Google's Magenta Studio.

 AI Games and Simulations:

Introduce AI concepts through interactive games and simulations. Platforms like AI4KIDS provide educational games that teach AI principles in a fun and engaging way.

 AI Robotics Projects:

Have students work on robotics projects that incorporate AI technologies. They can build and program robots using platforms like LEGO Mindstorms or Raspberry Pi with machine learning capabilities.

 AI in Healthcare Exploration:

Discuss applications of AI in healthcare, such as medical imaging analysis and disease prediction. Explore how AI is contributing to advancements in the medical field.

 AI Case Studies

Present case studies of successful AI applications, like self-driving cars, chatbots, or virtual medical assistants. Discuss the challenges faced and the impact of these technologies on society.

 AI Coding Competitions:

Encourage participation in AI coding competitions, such as Kaggle competitions for students. These platforms provide real-world problems that students can solve using AI and machine learning.

 Guest Speakers and Field Trips:

Invite AI professionals or researchers to speak to the students or organize field trips to AI research labs or companies. This can provide students with insights into real-world applications of AI.

 AI Research Projects:

Encourage students to undertake small AI research projects. This could involve exploring a specific AI topic of interest, conducting experiments, and presenting their findings.

STUDENTS ACTIVITIES	 DEBATE  AWARENESS PROGRAMME  CHATBOT  SKIT / PLAY
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Academic Society – CLICK CATALYST

Years	I, II, & III (Even Semester)
Credit	1
CLUB OVERVIEW	Click Catalyst is a student-focused academic and professional development club that promotes digital literacy, creativity, innovation, and practical application of technology in business and everyday professional activities. The club provides students with opportunities to explore digital tools, content creation, data handling, social media, emerging technologies, and technology-enabled business solutions. Through hands-on workshops, practical activities, competitions, expert sessions, collaborative projects, digital campaigns, and skill-development programmes, Click Catalyst enables students to connect theoretical knowledge with practical digital applications. The club aims to develop creativity, analytical thinking, digital competence, communication, teamwork, problem-solving, and innovation among students.
OBJECTIVES	 To promote digital literacy and technological awareness among students.  To provide practical exposure to digital tools and applications relevant to business, education, and professional development.  To encourage creativity, innovation, and the effective use of technology for solving real-world problems.  To develop students' skills in digital content creation, communication, and online engagement.  To provide opportunities for students to explore emerging technologies and their applications.  To facilitate interaction with industry experts, digital professionals, entrepreneurs, and alumni.  To develop students' analytical thinking, problem-solving, teamwork, leadership, and communication skills.

	✚ To provide a platform for students to showcase their digital projects, creative ideas, and technological innovations. ✚ To promote responsible, ethical, and secure use of digital technology and social media.
LEARNING OUTCOMES	✚ Identify and effectively use appropriate digital tools for academic, business, and professional purposes. ✚ Demonstrate basic skills in digital content creation, including presentations, posters, videos, and social media content. ✚ Apply digital tools to collect, organise, analyse, and present information. ✚ Develop creative digital solutions for business and social problems. ✚ Understand the basic applications of emerging technologies such as Artificial Intelligence, data analytics, and automation. ✚ Design basic digital communication and social media strategies. ✚ Demonstrate awareness of digital ethics, cyber safety, responsible technology use, and online privacy. ✚ Work collaboratively in teams to plan and execute technology-based projects. ✚ Improve communication, creativity, leadership, presentation, and problem-solving skills. ✚ Gain practical exposure to the application of digital technology in academic, business, and professional environments.
SOCIETY ACTIVITIES BASED ON TOPIC	✚ Digital Literacy Workshops and hands-on sessions on the effective use of digital tools, online platforms, productivity applications, and professional technologies. ✚ Content Creation Activities related to designing presentations, posters, infographics, videos, blogs, podcasts, and other digital content. ✚ Artificial Intelligence and Emerging Technologies

Expert sessions and practical activities introducing students to Artificial Intelligence, Generative AI, automation, and other emerging technologies.

 Data and Analytics

Basic activities involving data collection, data organisation, visualisation, and interpretation using digital tools.

 Social Media and Digital Communication

Workshops on social media platforms, professional communication, digital branding, online engagement, and responsible social media practices.

 Digital Marketing

Activities related to online promotion, digital campaigns, content marketing, customer engagement, and digital branding.

 Cyber Awareness and Digital Ethics

Sessions focusing on cyber safety, data privacy, responsible use of Artificial Intelligence, digital citizenship, and ethical technology practices.

 Industry Interaction

Guest lectures, expert sessions, demonstrations, mentoring programmes, and interactions with professionals working in technology and digital industries.

 Innovation and Problem Solving

Technology-based challenges and collaborative projects where students develop creative solutions to real-world problems.

 Leadership and Collaboration

Team-based digital projects, student-led initiatives, peer learning activities, and leadership opportunities.

 Community Outreach

Digital awareness programmes and technology-based initiatives supporting local communities, educational institutions, or social organisations.

 Digital Presence

Creation and management of digital content such as blogs, videos, podcasts, newsletters, and social media posts showcasing the activities and achievements of the club.

STUDENTS ACTIVITIES

-  **Digital Skills Orientation** – Students are introduced to the objectives of Click Catalyst and explore essential digital tools and applications.
-  **Click & Create Workshop** – Students learn to create digital posters, presentations, infographics, and other creative content.
-  **AI Exploration Session** – Students explore the basic applications of Artificial Intelligence and Generative AI in education, business, and professional life.
-  **Digital Content Challenge** – Students work individually or in teams to create innovative digital content based on a selected theme.
-  **Data to Decision Activity** – Students collect simple data and use digital tools to organise, analyse, visualise, and interpret the information.
-  **Social Media Strategy Activity** – Teams design a basic social media campaign for a product, service, event, or social cause.
-  **Digital Marketing Challenge** – Students develop creative ideas for promoting a product or service using digital platforms.
-  **Cyber Awareness Campaign** – Students create awareness materials and campaigns on cyber safety, digital privacy, and responsible technology use.
-  **Innovation Challenge** – Teams identify a real-world problem and propose a technology-enabled solution.
-  **Expert Interaction** – Students participate in guest lectures, demonstrations, mentoring sessions, and interactive discussions with industry professionals.
-  **Digital Portfolio Development** – Students create and maintain a basic digital portfolio showcasing their skills, projects, and achievements.
-  **Monthly Click Spotlight** – A selected student is given an opportunity to present a digital project, technological idea, creative content, or learning experience.
-  **Tech Quiz and Challenge** – Students participate in quizzes and competitions related to technology, Artificial Intelligence, digital tools, and current digital trends.

	 Collaborative Digital Project – Students work in teams to develop a digital solution, campaign, content series, or technology-based project.  Click Catalyst Showcase – The flagship event where students present their best digital projects, creative works, campaigns, and innovative solutions before faculty members and invited experts.  Community Digital Outreach – Students conduct digital literacy or cyber awareness activities for schools, communities, or social organisations.
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Academic Society – Venture Mavericks

Years	I, II, & III (Even Semester)
Credit	1
CLUB OVERVIEW	Venture Mavericks Society is a student-focused platform that encourages entrepreneurship, innovation, and practical learning in business and marketing. The society provides students with opportunities to explore entrepreneurial ideas, understand market needs, develop products, create marketing strategies, and present business ideas. Through hands-on workshops, guest lectures, competitions, industry interactions, collaborative projects, and the Innovator's Launchpad, the society enables students to connect classroom learning with real-world business practices. It aims to develop creativity, strategic thinking, leadership, teamwork, communication, and an entrepreneurial mindset among students.
OBJECTIVES	• To foster an entrepreneurial and innovative mindset among students. • To provide practical exposure to entrepreneurship, market research, product development, branding, and marketing. • To encourage students to identify market opportunities and develop innovative business ideas. • To facilitate interaction with industry experts, entrepreneurs, alumni, and professionals. • To develop students' creativity, strategic thinking, problem-solving, leadership, teamwork, and communication skills. • To provide a platform for students to showcase and pitch their business and marketing ideas. • To promote ethical, responsible, and socially conscious approaches to business and marketing.

LEARNING OUTCOMES	• Students will be able to identify and evaluate potential business and market opportunities. • Students will be able to conduct basic market research and analyse customer needs, market demand, competition, and market potential. • Students will be able to develop a product concept and create a basic prototype based on identified market needs. • Students will be able to apply branding, positioning, and marketing concepts to a product or business idea. • Students will be able to design basic digital and social media marketing strategies. • Students will be able to use customer feedback to evaluate and improve a product or marketing strategy. • Students will demonstrate improved teamwork, leadership, communication, presentation, and pitching skills. • Students will gain practical exposure to the process of taking an idea from concept to proposed market launch.
SOCIETY ACTIVITIES BASED ON TOPIC	Entrepreneurship: Entrepreneurial idea-sharing sessions, business idea development, startup simulations, and entrepreneurial challenges. Market Research: Expert workshops, customer behaviour analysis, market demand assessment, competitor analysis, and focus group activities. Product Development: Product ideation, prototype development, product testing, feedback collection, and product refinement. Branding & Marketing: Branding workshops covering brand identity, logo, packaging, positioning, and marketing strategies. Digital Marketing: Workshops and activities related to digital marketing and social media promotion. Industry Interaction: Guest lectures, expert sessions, panel discussions, and Q&A interactions with industry professionals and entrepreneurs. Innovation & Pitching: Business idea and marketing strategy competitions, culminating in the Maverick Pitch Fest. Leadership & Collaboration: Team-based projects, student leadership roles, and collaborative activities. Community Outreach: Marketing-oriented activities supporting local non-profits and social enterprises while promoting ethical marketing. Digital Presence: Creation of blogs, videos, podcasts, and social media content related to entrepreneurship and the society's activities.
STUDENTS ACTIVITIES	1. Innovator's Launchpad – A structured experiential programme that takes students through the journey from identifying a business idea to developing and promoting a proposed product. 2. Entrepreneurial Idea Sharing – Students present and discuss their entrepreneurial ideas and explore basic entrepreneurship and marketing concepts. 3. Market Research Workshop – Students interact with a guest expert and learn how to understand market demand and customer behaviour.

	4. Idea Selection & Team Formation – Students select a product idea based on market demand, form teams, and allocate responsibilities. 5. Market Analysis – Teams research customer needs, competition, demand, and market potential for their selected product. 6. Prototype Development – Teams brainstorm product concepts and develop a basic prototype. 7. Branding Workshop – Students develop the product’s brand identity, including the brand name, logo, packaging, and related marketing elements. 8. Focus Group Testing – Students test their product concept with a selected group of potential users and collect feedback. 9. Product Refinement – Teams analyse the feedback received and make appropriate improvements to their product. 10. Digital Marketing Activity – Students develop social media and digital marketing ideas to promote their product. 11. Customer Retention Activity – Students develop basic post-launch strategies to encourage customer engagement and retention. 12. Monthly Member Spotlight – A selected member is given an opportunity to share an entrepreneurial idea, experience, insight, or learning with other members. 13. Startup Simulation Challenge – Students participate in a simulated startup environment where they take on the roles of founders and investors and make business decisions. 14. Maverick Pitch Fest – The flagship presentation and competition where teams present their product’s market research, branding, marketing strategy, and proposed launch plan before faculty and industry judges. 15. Industry Interaction – Students participate in guest lectures, expert panels, mentoring sessions, and Q&A activities. 16. Collaborative Projects – Students work in teams to solve business and marketing challenges and develop innovative solutions.
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Academic Society – BrandNova

Years	I, II, & III (Even Semester)
Credit	1
CLUB OVERVIEW	BrandNova is a dynamic student-led society dedicated to exploring the fascinating world of brands. The society emphasises that brands are much more than logos and advertisements—they are experiences, emotions, stories, and identities that influence consumer behavior. The society aims to develop students into future brand strategists, marketers, storytellers, innovators, and entrepreneurs by providing practical exposure to branding concepts and real-world challenges. BrandNova serves as a platform where creativity meets strategy, allowing students to understand how successful brands are built,

	managed, positioned, and transformed in a constantly evolving marketplace.
OBJECTIVES	• To make branding feel practical, not just theoretical • To connect classroom learning with real-world brand thinking • To encourage bold ideas, creativity, and curiosity • To build a community that genuinely loves marketing, storytelling, and consumer behaviour. • To create awareness about the role of branding in shaping consumer perceptions, preferences, and purchasing decisions. • To provide practical exposure to real-world branding challenges through workshops, case studies, competitions, and industry interactions. • To foster creativity and innovation by encouraging students to design, develop, and evaluate new brand concepts and branding solutions. • To enhance students' understanding of advertising strategies and integrated marketing communications used by successful brands. • To introduce students to consumer psychology concepts such as perception, motivation, cognitive conditioning, emotional branding, colour psychology, social proof, and consumer decision-making processes.
LEARNING OUTCOMES	• Students will gain a practical understanding of how brands are created, positioned, managed, analysed, and developed beyond classroom theories. • Through activities such as Build-a-Brand, Rebrand It, and Brand Innovation challenges, students will develop creative thinking and strategic problem-solving skills. • Students will learn how consumer psychology, colour, packaging, storytelling, and brand perception influence people's choices and purchasing behaviour. • Through brand audits, brand analysis, and market observation activities, students will develop the ability to collect data, analyse consumer perceptions, and convert observations into meaningful insights. • Students will acquire industry-relevant competencies in brand management, consumer research, and strategic communication, improving their employability and entrepreneurial capabilities. • Students will develop an appreciation for the ethical, social, and cultural dimensions of branding and their impact on consumers and society.

	• Students will learn to apply branding concepts across diverse business contexts, including products, services, organizations, individuals, and digital platforms. • Students will enhance their communication, presentation, and persuasion skills by participating in debates, brand pitches, storytelling exercises, and collaborative branding projects. • Students will gain practical exposure to digital branding, influencer marketing, personal branding, and emerging technologies that are transforming the branding landscape.
SOCIETY ACTIVITIES BASED ON TOPIC	• Brand Strategy Brand detective Sessions and activities that help students understand brand positioning, market segmentation, brand identity, brand architecture, and competitive brand analysis. • Brand Innovation Creative challenges and brainstorming sessions that encourage ideation, product innovation, rebranding, and development of unique brand concepts. • Brand Storytelling Workshops and contests focused on storytelling techniques, brand narratives, emotional branding, and creating meaningful brand experiences. • Consumer Psychology Activities exploring consumer behaviour, perception, motivation, decision-making processes, and emotional triggers that influence buying behaviour. • Packaging Influence Packaging innovation Hands-on activities related to packaging design, unboxing experiences, shelf impact, sustainability, consumer perception, and visual communication through packaging. • Digital & Influencer Branding Workshops and projects on social media branding, influencer marketing, content strategy, online reputation management, and digital brand building. • Personal Branding Sessions on self-branding, LinkedIn branding, resume branding, personal reputation, and professional identity development. • AI and Future of Branding Awareness programmes and projects on AI tools, automation, virtual branding, predictive analytics, and future trends in branding. • Industry Interaction Guest lectures, expert talks, panel discussions, industry visits, and mentoring sessions with branding and marketing professionals.

STUDENTS ACTIVITIES	• Cognitive Conditioning & Brand Recall The brand recall challenge Engaging games, experiments, and challenges that build awareness about memory, conditioning, brand recall, exposure effect, and mental availability of brands. • Colour Psychology Colour coding Quiz and activities that study how colours influence emotions, brand perception, purchasing decisions, and industry-specific colour preferences. • Brand Innovation & Problem Solving Build-a-brand competition Hackathons, brand case challenges, and idea-generation sessions that encourage students to solve real-world branding problems. • Neuromarketing Practical exposures and demonstrations on how the brain responds to brands, packaging, colours, visuals, and sensory stimuli. • Advertising Psychology Ad surgery Analysis and review of advertisements focusing on emotional appeals, persuasion techniques, AIDA model, storytelling in ads, celebrity influence, and ad effectiveness. • Brand Research & Analytics Brand audit Activities that involve brand audits, surveys, data analysis, consumer insights, brand equity measurement, and market research techniques. Brand war debates Structured debates that encourage students to critically analyze competing brands by examining their positioning strategies, marketing approaches, consumer perceptions, brand equity, and competitive advantages. Brand cemetery & Brand Revival Studies Interactive sessions focused on studying brands that failed, declined, or disappeared from the market. Students explore the strategic, marketing, technological, and consumer-related factors that contributed to their downfall, drawing valuable lessons on brand sustainability, innovation, adaptation, and crisis management.
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Semester III, IV, V & VI - (Syllabus)

SEMESTER III

Course Code	
Course Title	Corporate accounting
Credits	06
Hours/week	06
Category	Major Core (MC) Problem with Theory
Semester	III
Regulation	2024

Course overview:

- Corporate entities: Students can learn about corporate entities and how they operate in the accounting environment.
- To analyse the corporate financial statements under different conditions and understand the financial statements in different manner.
- Corporate accountants manage an organization's financial affairs including creating financial statements, monitoring cash flow and expenditures.

Course Objective.

1. To enable the students about the preparation and presentation of the company accounts.
2. To motive the students to familiarise the various provisions of the Companies Act.
3. Construct the financial statements of company within the frame work of Ind AS
4. To enable the students to acquire the basic knowledge of the corporate accounting and to learn the techniques of preparing the financial statements.

Prerequisites

Basic knowledge of Corporate Accounting

Unit	CONTENT	Hrs	Cos	Cognitive level
I	Issues of shares – Types of shares – under subscription and over subscription – pro-rata allotment – forfeiture and re-issue of shares – Buy Back of Shares – Rights Issue– Bonus Issue – Sweat Equity.	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
II	Accounting for Redemption of Preference Shares and Debentures - Redemption of debentures- Problems by using Sinking fund method – Redemption of preference shares: -Meaning – legal provisions – Treatment regarding Premium on redemption– Redemption of preference shares – underwriting of shares and debentures.	12	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
III	Final Accounts Conceptual and working Legal position regarding final accounts of companies – Compliance with Accounting standards- Form and	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6

	contents of Statement of Profit or Loss and Balance Sheet as per Schedules -preparation of final Statement of Profit and Loss and Balance Sheet – Disposal of company profits –dividend tax deducted at source-Declaration of dividends out of reserves-Transfer to Reserves etc., calculation of managerial remuneration.			
IV	Valuation of Goodwill and Valuation of Shares -Conceptual and working Valuation of Goodwill – Meaning of Goodwill – Need for Valuation of Goodwill – Factors Affecting Valuation of Goodwill – Methods of Valuation Good will and shares.	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
V	Alteration of Share Capital of a Company – Internal Reconstruction – Accounting treatment of Reduction of share capital – Liquidator’s Final Statement of Account.	12	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
	Textbooks: 1.Gupta,R.L&Radhaswamy,M,AdvancedAccounts,SulthanChand,NewDelhi. 2.Jain,S.P&Narang,N.L.,AdvancedAccounting,KalyaniPublications. 3. Shukla & Grewal & Gupta, Advanced Accounting, S. Chand & Co., New Delhi .			
	Suggested Readings 1.ReddyT.S.&Murthy,A,CorporateAccounting,MarghamPublications,Chennai. 2.Shukla&Grewal&Gupta,AdvancedAccounting,S.Chand&Co.,NewDelhi 3. Monga J.R. Ahuja, Financial Accounting, Mayur Paper Books, Noida Girish and Sehagl Ashok. 4. Tulsain, P.C: Corporate Accounting, S. Chand Publication, New Delhi			

	Web Resources www.accountingcoach.com www.accountingstudyguide.com www.futureaccountant.com .education.svtuition.org www.accountingcoach.com www.accountingstudyguide.com www.futureaccountant.com www.education.svtuition.org			
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Course Outcomes (COs) and Cognitive Level Mapping

	CO Description	Cognitive Level
CO1	Understand information linked to corporate accounting as well as elements related to share issuance, share capital structure, and share kinds.	K1 K2
CO2	Understanding corporate accounting concepts and the creation of financial statements.	K3 K4
CO3	Understand issue of preference shares, redemption of preference shares and capitalization of profit and loss in conformity with Schedule VI, Companies Act 2013.	K5 K6

Course code	
Course title	MARKETING MANAGEMENT

Credits	5
Hours/Week	5
Category	MC
Semester	III
Regulation	2024

Course Overview:

1. Marketing Management is an essential course aimed at equipping students with a thorough grasp of marketing principles, theories, and operational methodologies in contemporary business settings.
2. The curriculum encompasses critical elements including market opportunity analysis, formulation of marketing strategies, and execution of tactics to achieve organizational goals.
3. Emphasis is placed on understanding the pivotal role of marketing in fostering customer value, fortifying brand equity, and nurturing enduring consumer relationships.
4. The course emphasizes the dynamic nature of the commercial landscape and the need for marketers to adapt strategies accordingly.
5. Students gain insights into analyzing market trends, developing effective marketing strategies, and implementing tactics to stay competitive in today's business environment.

Course Objective:

1. To acquire an in-depth understanding of the essential marketing principles, theories and practices that are applicable within a wide range of business environments.
2. To analyze market dynamics, consumer behaviors, and competitive landscapes to identify and capitalize on market opportunities, while concurrently formulating strategic marketing plans that align with organizational goals and effectively address market challenges.
3. To evaluate ethical considerations and demonstrate corporate social responsibility (CSR) awareness in marketing strategies, while also developing practical skills in marketing planning, implementation, and performance evaluation through case studies and real-world projects.
- 4.

Prerequisites	Basic knowledge about business.
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Syllabus

Unit	Content	Hours	COs	Cognitive Level
I	Marketing and the Marketing Process Definition of Marketing and Marketing Management – Marketing Process – Marketing Management Orientation – Marketing Plan – Marketing Mix – Relationship Building - Customer Retention Strategies	12	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
II	Consumer/ Business Market Segmentation Marketing Environment – Managing Marketing Information – Consumer Markets – Consumer Buyer Behaviour Process – Business Markets – Business Buyer Behaviour Process – Market	18	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6

	Segmentation –Targeting – Positioning Strategies – Marketing Plan			
III	Product and Pricing Strategies Product, Services and Branding Strategies – Types of Products– Product Mix – New Product Development - Product Life Cycle Strategy, Pricing – Pricing Objectives - Kinds of Pricing– Factors Affecting Pricing – Pricing Strategies - Market Research	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
IV	Marketing Channel and Communication Strategies Marketing Channels – Functions – Types – Event Management - Channel design management–Channel behavior Organization and Conflict; Marketing Communication Mix – Communication Process – Integrated Marketing Communication - Steps in Developing Effective Marketing Communication – Setting Promotion Budget and Mix	18	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
V	Recent Trends in Marketing Green Marketing – Consumer oriented marketing - Customer value marketing - innovative marketing- Sense of mission marketing - Marketing Ethics – Rural marketing – Digital Marketing – Role of social media in Marketing – Marketing Metrics – Sales Metrics - Significant measure indicates the performance of marketing efforts - Metrics to Finance department- Metrics to Marketing department – Decision Making	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6

Study Text:

1. Kotler Philip, Armstrong Gary, Agnihotri y. Prafulla, Ehsan Ul Haque, Principles of Marketing -A South Asian Perspective, 13th Edition, Pearson 2009.

Suggested Readings:

1. Maheshwari P. Rajendra, Principles of Marketing, International Book House, 1st edition, 2012.
2. Armstrong Gary, Kotler Philip, Principles of Marketing, Prentice Hall, 2011.
3. Marketing Management by Philip Kotler and Kevin Lane Keller
4. Reverse Psychology Marketing: The Death of Traditional Marketing and the Rise of the New “Pull” Game by I. Sinha and T. Foscht

Web resources:

1. <https://www.studyblue.com/notes/b/principles-of-marketing-13th-edition/>
2. <http://www.kotlermarketing.com/>
3. <http://bbaworldwide.com/2013/12/20/class-lecture-principles-of-marketing-ppt-file/>
4. https://ebooks.lpude.in/commerce/mcom/term_2/DCOM405_DMGT408_MARKETING_MANAGEMENT_DMGT203_ESSENTIALS_OF_MARKETING.pdf
5. <https://www.ascdegreecollege.ac.in/wp-content/uploads/2020/12/Marketing-Management-Millennium-Edition.pdf>

COURSE OUTCOMES

Upon successful completion the students will be able to:

COs	Statements	Cognitive Level
CO 1	Demonstrate comprehensive mastery of marketing principles, theories, and practices in various business contexts, while effectively executing strategic marketing plans to meet organizational goals and overcome market challenges.	K1, K2
CO 2	Utilize analytical tools to assess market dynamics, consumer behaviors, and competitive landscapes, identifying and capitalizing on opportunities.	K3, K4
CO 3	Develop and maintain strong brand identities to differentiate in competitive markets and foster consumer loyalty, while also evaluating and prioritizing ethical considerations and corporate social responsibility in marketing strategies.	K5, K6

Course Code	
Course Title	LOGISTICS AND SUPPLY CHAIN MANAGEMENT
Credits	6
Hours / Week	6
Category	MC
Semester	III
Regulation	2024

Course Overview

1. Explore the flow of goods and services from production to delivery.
2. Learn the coordination of sourcing, procurement, production, and distribution processes.
3. Understand how to optimize supply chain efficiency and reduce operational costs.
4. Focus on maintaining high levels of customer satisfaction through effective supply chain management.
5. Gain insights into modern technologies and strategies used in global logistics and supply chain operations.

Course Objectives

1. Understand and use the basic logistics and supply chain management concepts and the contemporary theoretical and practical developments.
2. To understand the complex and interactive nature of participants, functions, and flow of products to customers through logistics and supply chain management.
3. To understand warehouse operations and transport operations and how to manage them.
4. Develop strategies to improve supplier relationships, reduce costs, and enhance customer satisfaction.
5. Explore the role of technology in modern supply chains, including automation and data analytics.

Prerequisites

Basic knowledge on Logistics and Supply Chain Management.

SYLLABUS

UNIT	CONTENT	HOURS	COs	CLs
I	Meaning - objectives of Business Logistics, Logistical competitive advantage, Components of Logistics Management, Functions of Logistics Management, Integrated Logistics System, Role of Logistics consultant, Pressures to improve logistics, Logistical Information System (LIS).	14	CO1 CO2 CO3	K1 K2 K3 K4 K5 K6
II	Nature – concept – Value chain, Functions and contributions, Logistics Vs Supply Chain Management, Decision Phases in a Supply chain, Organizational Structure - Achieving Strategic Fit, Supply Chain Solution (3PL & 4PL), Bullwhip Effect and Supply Chain, Supply Chain Relationships.	16	CO1 CO2 CO3	K1 K2 K3 K4 K5 K6
III		16	CO1	K1

	Customer – Customer Service – Features, Scope of Customer Service, Rights of Customer, Market Trends, Customer Service Strategic Management, Impediments to Customer Service, Coordination in the Supply Channel, Inventory Management - Appraisal – cost – risk.		CO2 CO3	K2 K3 K4 K5 K6
IV	Concepts of Warehousing, Types of Warehousing, Functions of Warehousing, Warehousing Strategy, Warehousing design, Operational mechanism of Warehousing, Material handling consideration, Virtual Warehousing.	16	CO1 CO2 CO3	K1 K2 K3 K4 K5 K6
V	Transportation in Logistics and Supply Chain Management, Elements of Transportation cost, Modes of Transportation, Multi-model Transport, Selection of Transportation mode, Indian Transportation Infrastructure bottleneck, Transportation decision on pricing and rate, Transportation network – Routing and Scheduling.	16	CO1 CO2 CO3	K1 K2 K3 K4 K5 K6

Text Books

1. "Logistics & Supply Chain Management" by Martin Christopher
2. "Supply Chain Management: Strategy, Planning, and Operation" by Sunil Chopra and Peter Meindl
3. "Supply Chain Management: From Vision to Implementation" by Stanley E. Fawcett, Lisa M. Ellram, and Jeffrey A. Ogden
4. "Global Logistics and Supply Chain Management" by John Mangan, Chandra Lalwani, and Tim Butcher
5. "Designing and Managing the Supply Chain" by David Simchi-Levi, Philip Kaminsky, and Edith Simchi-Levi

Suggested Readings

- "The Handbook of Logistics and Distribution Management" by Alan Rushton, Phil Croucher, and Peter Baker
- "Supply Chain Logistics Management" by Donald Bowersox, David Closs, and M. Bixby Cooper
- "The Digital Supply Chain: How to Survive and Thrive in the Age of the Internet of Things" by Bart L. MacCarthy and Ram Ganeshan
- "Sustainable Logistics and Supply Chain Management" by David B. Grant, Alexander Trautrim, and Chee Yew Wong

Web Resources

supplychain247.com

scmworld.com

supplychainbrain.com

logisticsmgmt.com

apics.org

Course Outcomes (COs) and Cognitive Level Mapping

Cos	CO Description	Cognitive Level
CO 1	Develop skills in creating and implementing supply chain strategies that align with overall business goals.	K1, K2
CO 2	Gain skills to identify potential risks in supply chains, such as disruptions, supplier failures and logistical bottlenecks.	K3, K4
CO 3	Demonstrate to use key performance indicators (KPIs) to measure and improve supply chain performance.	K5, K6

Course Code	
Course Title	DATA VISUALIZATION WITH TABLEAU AND POWERBI
Credits	6
Hours/Week	6
Category	MC

Semester	III
Regulation	2024
Course Overview 1. Explore the Tableau software ecosystem, including key tools and features such as toolbar icons, data windows, and aggregation techniques. 2. Learn to create and customize a variety of visualizations, including heat maps, bar charts, scatter plots, and box plots. 3. Master cross-tabulation, dashboard design, advanced mapping, and combining multiple dashboards into interactive stories. 4. Understand Power BI deployment modes, project roles, and data transformation processes, including import and direct query modes 5. Develop skills in report planning, visual interactions, and formatting, and explore custom visuals and dashboard design.	
Course Objectives • Gain proficiency in creating and interpreting various types of visualizations using Tableau, such as heat maps and bar charts. • Learn to design and publish interactive dashboards and stories in Tableau, utilizing advanced features and best practices. • Understand the fundamental aspects of Power BI, including deployment modes and the data transformation process. • Develop skills in designing queries and managing data transformations using M Queries in Power BI, focusing on data sources and relationships. • Create and format comprehensive reports in Power BI, employing various visualization techniques and custom visuals for effective data presentation.	
Prerequisites	Basic knowledge of Data Analysis

SYLLABUS

S.No	Content	Hrs	COs	Cognitive Level
I	Visualization with Tableau – I Tableau Software Ecosystem, Toolbar Icons, Data Window and Aggregation, Tableau Data Source, Heat Maps, Tree maps, Bar Chart, Line Chart, Area Fill Charts, Pie Chart, Scatter Plot, Circle View, Bullet Graph, Packed Bubble, Histogram, Boxplot and Gantt Chart, Sorting Data, Enhancing Views with Filters, Sets, Groups & Hierarchies.	8	CO1 CO2	K1, K2, K3, K4,
II	Visualization with Tableau – II Cross-tabulation, Dashboard Designing, Dashboard Actions, Joining Database, Functions in Tableau, Aggregate Functions, Numeric	8	CO2 CO3	K3, K4, K5, K6

	Functions, Date Functions, Stories, Advanced Mapping, Advanced Parameters, Tableau Best Practices, Combining Multiple Dashboards into Stories, Publishing Stories and Dashboards.			
III	Introduction to Power BI Power BI Deployment Modes, Project Discovery and Ingestion, Power BI Project Roles, Admin and Project Role Collaboration, Power BI Licenses, Data Warehouse Bus Matrix, Dataset Design Process, Data Profiling, Dataset Planning, Data Transformations, Import Mode and Direct Query Mode.	8	CO1 CO2	K1, K2, K3, K4
IV	Data Transformation & M Query Design Query Design per Dataset Mode, Data Sources, Authentication, Privacy Levels, Power BI Desktop Options, M Queries, Data Source Parameters, Staging Queries, Fact and Dimension Queries, M Query Summary, Data Types, Direct Query Data Models: Relationships View, Data View, Report View, Fact Tables, Dimension Tables, Relationships.	8	CO2 CO3	K3, K4, K5, K6
V	Creating and Formatting Reports Report Planning, Live Connections to Power BI Datasets, Choosing the Visual, Visual Interactions, Slicers, Report Filter Scopes, Report Filter Conditions, Visual-Level Filtering, Visualization Formatting, Custom Visuals and Dashboards : Drill through Report Pages, Bookmarks, Analytics Pane, Quick Insights, Custom Visuals, Dashboard Design, Multi-Dashboard Architectures.	8	CO2, CO3	K3, K4, K5, K6

Text Books

1. Kieran Healy, 2018, *Data Visualization: A Practical Introduction*, Princeton.
2. Hadly Wickham, Garrett Grolemund, 2017, *R for Data Science: Import, Tidy, Transform, Visualize and Model Data*, O'Reilly.
3. Chandraish Sinha. (2021). *Mastering Power BI: Build Business Intelligence Applications Powered with DAX Calculations, Insightful Visualizations, and Loads of Data Sources*. BPB.
4. Julia Steele, Noah Iliinsky, 2010, *Beautiful Visualization*, O'Reilly Media.

Suggested Readings

1. Philip Seamark, 2020, *Advanced Analytics with Power BI and Excel: Data Cleansing, Analysis, and Visualization*, Apress.
2. Ryan Sleeper, 2020, *Practical Tableau: 100 Tips, Tutorials, and Strategies from a Tableau Zen Master*, O'Reilly Media.

Web Resources

1. <https://app.datacamp.com/learn/courses/analyzing-data-in-tableau>
2. <https://app.datacamp.com/learn/courses/creating-dashboards-in-tableau>
3. <https://app.datacamp.com/learn/courses/data-visualization-in-tableau>
4. <https://app.datacamp.com/learn/courses/data-visualization-in-power-bit>
5. <https://app.datacamp.com/learn/courses/data-modeling-in-power-bi>
6. <https://app.datacamp.com/learn/courses/exploratory-data-analysis-in-power-bi>

Course Outcomes (COs) and Cognitive Level Mapping

Cos	CO Description	Cognitive Level
CO 1	Students will be able to recall and describe fundamental visualization concepts and tools such as charts, filters, and dashboard components in Tableau and Power BI.	K1, K2
CO 2	Students will be able to apply Tableau and Power BI functions to create dashboards, cross-tabulations, and perform data transformations.	K3, K4
CO 3	Students will design and build advanced interactive dashboards, visual reports, and analytical solutions using Power BI and Tableau's advanced features.	K5, K6

Course Code	
Course Title	Business Analytics
Credits	3

Hours/Week	5
Category	Major Elective (ME) – Theory
Semester	III
Regulation	2024
Course Overview 1. Learn the basics and importance of data-driven decision-making in business. 2. Acquire skills to gather, clean, and organize data for analysis. 3. Explore predictive models to forecast business outcomes. 4. Apply analytics to solve problems in marketing, finance, and operations. 5. Use statistical tools to analyse and visualize data effectively.	
Course Objectives 1. Grasp the key concepts, types, and importance of business analytics for decision-making. 2. Learn to collect, clean, and manage data efficiently using industry tools. 3. Apply statistical methods to analyse data and generate actionable insights. 4. Build predictive models to forecast trends and make informed business decisions. 5. Implement analytics techniques to solve real-world business challenges across various domains.	
Prerequisites	Basic knowledge of Analytics

SYLLABUS

S.No	Content	Hrs	COs	Cognitive Level
I	Introduction to Business Analytics - Definition and Importance of Business Analytics - Types of Analytics: Descriptive, Predictive, and Prescriptive - Applications in Various Business Functions (Marketing, Finance, HR, etc.) - Role of Data in Decision-Making.	15	CO 1 CO 2 CO 3	K1, K2, K3, K4, K5, K6
II	Data Collection and Management - Data Types and Sources - Data Cleaning and Preparation - Introduction to Databases and Data Warehousing - Tools for Data Management (e.g., Excel, SQL)	15	CO 1 CO 2 CO 3	K1, K2, K3, K4, K5, K6
III	Data Analysis and Visualization - Basic Statistical Concepts for Analytics - Data Visualization Tools (e.g., Tableau, Power BI) - Exploratory Data Analysis - Reporting Insights from Data	15	CO 1 CO 2 CO 3	K1, K2, K3, K4, K5, K6

IV	Predictive Analytics - Introduction to Predictive Modeling - Regression Analysis and Time Series Forecasting - Machine Learning Basics (e.g., Classification, Clustering) Case Studies: Predictive Models in Business	18	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
V	Business Applications of Analytics - Marketing Analytics: Customer Segmentation, CLV- Financial Analytics: Risk Analysis, Portfolio - Optimization Operations Analytics: Supply Chain, Inventory Management - Ethical Considerations in Business Analytics	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6

Text Books

1. Business Analytics: Data Analysis & Decision Making by S. Christian Albright, Wayne L. Winston
2. Data Science for Business: What You Need to Know about Data Mining and Data-Analytic Thinking by Foster Provost, Tom Fawcett
3. Data Visualization: A Practical Introduction by Kieran Healy
4. Applied Predictive Analytics: Principles and Techniques for the Professional Data Analyst by Dean Abbott

Suggested Readings

1. Financial Analytics with R: Building a Laptop Laboratory for Data Science by Mark J. Bennett, Dirk L. Hugen
2. Marketing Analytics: A Practical Guide to Real Marketing Science by Mike Grigsby

Web Resources

1. <https://hbr.org/2012/09/the-basics-of-business-analytics>
2. <https://datastudio.google.com/>
3. <https://https://blog.hubspot.com/marketing/marketing-analytics>www.khanacademy.org/math/statistics-probability

Course Outcomes (COs) and Cognitive Level Mapping

Cos	CO Description	Cognitive Level
CO 1	Develop the ability to analyse, interpret, and present data insights to guide strategic business decisions across various functions like marketing, finance, and operations.	K1, K2
CO 2	Gain practical experience in building and using predictive models, such as regression and machine learning techniques, to forecast business trends and optimize decision-making.	K3, K4
CO 3	Demonstrate proficient in using industry-standard analytics tools (e.g., Excel, SQL, Tableau) to solve real-world business challenges, improving operational efficiency and business performance through data insights.	K5, K6

SEMESTER IV

Course Code	
Course Title	Advanced corporate accounting
Credits	06
Hours/week	06
Category	Major Core (MC) Theory with Sums
Semester	IV
Regulation	2024
Course overview: • Learn about corporate entities and how they work in accounting • Comprehend the importance of Consolidated Financial Statements under Companies Act 2013. • Articulate a business problem and convert it into a viable Analytics question. • Investigate the causes for company insolvency and determine the liquidation process. • Assess the impact of CSR efforts on company financial statements. • Compose the legal requirements for company amalgamation and mergers.	
Course Objective. • To help students prepare financial statements of special types of businesses viz. Banks and Insurance companies. • To outline the accounting procedure for amalgamation of companies in the nature of merger or purchase. • The students acquire a thorough knowledge in banking accounts. It helps them to even to appear bank examinations. • To help the students to understand the techniques of restructuring and liquidate corporate enterprises.	
Prerequisites	Basic knowledge of Corporate Accounting

SYLLABUS

Unit	CONTENT	Hrs	Cos	Cognitive level
I	Amalgamation – Meaning – Types – Purchase consideration – Computation of Purchase consideration – Entries in the books of the transferor and transferee – Special Adjustments Entries for Inter-Company Owings and Holdings	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6

II	Accounts of Banking Companies – Rebate on Bills Discounted – Non-Performance assets and their treatment – Classification of Bank Advances – Provision for Doubtful Debts – Guidelines of RBI for preparation of final accounts of banking Companies.	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
III	Holding Company – Subsidiary Company – Meaning – Preparation of Consolidated Final Statement of Accounts – Treatment of Dividend.	12	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
IV	Meaning of Liquidation – Modes of Winding up – Contributory – order of payment – Preferential creditors – Statement of Affairs – Deficiency or surplus accounts.	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
V	Human Resource Accounting: Need for HRA – Reasons for HRA – Development of HRA – Meaning (Concept) of HRA – Objectives of HRA – Valuation of Human Resources – Benefits of HRA – Limitations of HRA – Position of HRA in India (only theory). - Introduction to forensic accounting: Introduction – Meaning – Objectives – advantages and limitations - Methods and techniques (only theory) Inflation Accounting (Accounting for price level changes) Introduction to inflation accounting– meaning– limitation of historical accounting. (Only theory)	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
	Textbooks: 1. Gupta, R.L. & Radhaswamy, M., Advanced Accounts, Sulthana Chand, New Delhi. 2. Jain, S.P. & Narang, N.L., Advanced Accounting, Kalyan Publications. 3. Frank J. Ohlhorst, Big Data Analytics, 1st Edition, Wiley, 2012. • 4. Efraim Turban, Ramesh Sharda, Jay Aronson, David King, Decision Support and Business Intelligence Systems, 9th Edition, Pearson Education, 2009			
	Suggested Readings 1. Reddy T.S. & Murthy, A., Corporate Accounting, Margham Publications, Chennai. 2. Shukla & Grewal & Gupta, Advanced Accounting, S. Chand & Co., New Delhi 3. Monga J.R. Ahuja, : Financial Accounting, Mayur Paper Books, Noida Girish and Sehagl Ashok.			

	4. Tulsain, P.C: Corporate Accounting, S. Chand Publication, New Delhi			
	Web Resources www.accountingcoach.com www.accountingstudyguide.com www.futureaccountant.com .education.svtuition.org www.accountingcoach.com/www.accountingstudyguide.com www.futureaccountant.com / www.education.svtuition.org			

Outcomes (COs) and Cognitive Level Mapping

Cos	CO Description	Cognitive Level
CO 1	Understanding and recall the legal framework for amalgamation, banking companies, holding companies, liquidation, social accounting, human	K1, K2

	resource management accounting, forensic accounting, and inflation in light of emerging developments.	
CO 2	Evaluate financial accounts to traverse legal laws and their applicability in diverse businesses.	K3, K4
CO 3	Examine the influence of various business operations on the financial statements and economic performance of firms.	K5, K6

Course Code	
Course Title	Corporate and Business Law
Credits	05
Hours/Week	05
Category	Major core (MC) – Theory
Semester	III
Regulation	2024
Course Overview - Study the formation, elements, and types of contracts under the Indian Contract Act, including indemnity, agency, and the Sale of Goods Act 1930. - Learn about valid offers, acceptances, and the role of consideration in contracts. - Explore who can contract, the importance of free consent, and the legality of agreements. - Understand company formation, characteristics, and key provisions of the Companies Act, 2013. - Focus on the requirements of a prospectus, types of share capital, and company meetings.	
Course Objectives - Provide a strong foundation in contract formation, nature, and classification under the Indian Contract Act. - Explain the legal essentials of offers, acceptances, and consideration in contracts. - Assess party competency, free consent, and contract validity. - Cover key provisions of the Companies Act, 2013, including company formation and administration. - Clarify legal aspects of prospectuses, share capital, and company meetings.	
Prerequisites	Basic Knowledge about Law

SYLLABUS

S.No	Content	Hrs	COs	Cognitive Level
I	Indian Contract Act – Formation – Nature and Elements of Contract – Classification of Contract – Contract Vs Agreement – Contract of Indemnity – Agency - Sale of Goods Act 1930	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
II	Offer – Definition – Forms of offer – Requirements of Valid Offer. Acceptance – Meaning – Legal Rules as to a valid acceptance. Consideration – Definition – Essentials – Legal Rules relating to consideration – Contracts without consideration	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
III	Capacity of parties – Definition – Persons Competent to contract. Free consent – Coercion – Undue Influence – Fraud – Misrepresentation – Mistake. Legality of object – void agreement – Unlawful agreements – performance of contracts	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
IV	Company – Definition – Characteristics – Lifting of corporate veil – Advantages of Incorporation – Company Law Administration – NCLT & NCLAT – Classification of companies – Formation of a Company – Memorandum and Articles of Association.	18	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
V	Prospectus – Definition – Registration – Contents – Shelf Prospectus – Misstatement and their consequences - Share capital – Meaning – kinds – alteration of share capital – Dividend – provisions for declaration of dividend – Meetings – Kinds of Company Meetings.	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6

Text Books

5. .Kapoor, N.D. Business Laws, Sultan Chand and Sons.
6. Sreenivasan, M.R. Business Laws, Margam Publications.
7. Dhandapani, M.V. Business Laws, Sultan Chand and Sons.

Suggested Readings

3. Badre Alam, S. & Saravanel, P. Mercantile Law
4. Kapoor, N.D. Elements of Company Law, Sultan Chand and Sons

Web Resources

4. <https://www.mca.gov.in/>
5. <https://www.icsi.edu/>
6. <http://www.ili.ac.in/>

Course Outcomes (COs) and Cognitive Level Mapping

Cos	CO Description	Cognitive Level
CO 1	Grasp the formation, nature, and classification of contracts, and differentiate between contracts and agreements under the Indian Contract Act.	K1, K2
CO 2	Learn about company formation, administration, and legal requirements for prospectus and share capital, focusing on the Indian Companies Act.	K3, K4
CO 3	Assess party capacity, free consent, and the legality of contract elements, ensuring compliance with legal standards.	K5, K6

Course Code	
Course Title	Python Programming for Analytics
Credits	6
Hours/Week	6
Category	MC
Semester	IV
Regulation	2024

Course Overview

- Equip students with the fundamental programming skills necessary for data analysis.
- Comprehend Python programming language from its basics to its application in data manipulation and analysis.
- Create efficient and effective Python code, exploring essential concepts such as data types, control flow, functions, and object-oriented programming.
- Application of powerful libraries like NumPy, Pandas, and Matplotlib for data manipulation, analysis, and visualization.

Course Objectives

1. Comprehend concepts pertaining to Python Programming, so as to prepare them for the advanced modules such as ML.
2. Analyse python scripting with respect to Emerging Technologies.
3. Grasp the fundamental concepts of Python programming, including syntax, variables, data types, operators, and control flow statements.
4. Calculate and interpret key statistical metrics, conduct hypothesis tests and to Create informative visualizations using libraries like Matplotlib and Seaborn to explore and communicate data insights.

Prerequisites

Basic knowledge of Programming Language and Data Analysis

SYLLABUS

S.No	Content	Hrs	COs	Cognitive Level
I	Data Types and Operators Introduction to Python, Types - Integers, Strings, Booleans; Operators- Arithmetic Operators, Comparison (Relational) Operators, Assignment Operators, Logical Operators, Bitwise Operators, Membership Operators, Identity Operators, Expressions, Lists, Operations, Slicing, Methods, Tuples, Sets, Dictionaries.	8	CO1, CO2	K1, K2, K3, K4
II	Conditional Statement, Looping and Functions Conditional blocks using If, Else and El-if, For Loop, While Loop, Loop Manipulation using Pass, Continue, Break and Else, Conditional and Loops Block, Defining Functions, Calling Functions, Global and Local Variables. Introduction to PIP, Installing Packages via PIP.	8	CO1, CO2	K1, K2, K3, K4
III	NumPy, Pandas and Matplotlib NumPy: Introduction to NumPy, Pandas: Introduction to Pandas, lists, Data frame, arrays, loc & iloc function, describe function, Matplotlib: Charting with Matplotlib, formatting of the charts, Histogram, Bar plot, Boxplot, Scatter Plot, Line Plot, other plots.	8	CO1, CO2, CO3	K1, K2, K3, K4, K5, K6
IV	Descriptive Statistics Types of Data, Nominal, Ordinal, Scale and Ratio, Measures of Central Tendency, Mean, Mode and Median, Bar Chart, Pie Chart and Box Plot, Measures of Variability, Range, Inter-Quartile-Range, Standard Deviation, Skewness and Kurtosis, Histogram.	8	CO1, CO2	K1, K2, K3, K4, K5, K6

V	Statistical Inference and Hypothesis Testing Population and Sample, Null and Alternate Hypothesis, Level of Significance, Type I and Type II Errors, One Sample t Test, Paired Sample t Test, Independent Samples t Test, One Way Analysis of Variance and Chi Square Test.	8	CO1, CO2, CO3	K1, K2, K3, K4, K5, K6
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Text Books

1. R.Nageswara Rao, 2018, Core Python Programming, Dreamtech.
2. John Hearty, 2016, Advanced Machine Learning with Python, Packt.
3. Jake VanderPlas, 2016, Python Data Science Handbook: Essential Tools for Working with Data, O'Reilly.

Suggested Readings

3. Mark Lutz, 2010, Programming Python, O'Reilly.
4. Tim Hall and J-P Stacey, 2009, Python 3 for Absolute Beginners, Apress.

Web Resources

7. <https://app.datacamp.com/learn/courses/intro-to-python-for-data-science>
8. <https://app.datacamp.com/learn/courses/intermediate-python>
9. <https://app.datacamp.com/learn/courses/introduction-to-statistics-in-python>
10. <https://app.datacamp.com/learn/courses/introduction-to-importing-data-in-python>

Course Outcomes (COs) and Cognitive Level Mapping

Cos	CO Description	Cognitive Level
CO 1	Understand and able to write well-structured and efficient Python code, understanding and applying fundamental concepts such as variables, data types, control flow statements (if-else, loops), functions, and object-oriented programming.	K1, K2
CO 2	Apply knowledge to use Python libraries like NumPy and Pandas to perform data manipulation, cleaning, and analysis tasks, including data loading, filtering, aggregation, and visualization.	K3, K4
CO 3	Evaluate and create apply Python programming to solve real-world problems, including automation, data analysis, and will be able to develop and implement Python scripts and programs to achieve specific goals.	K5, K6

Course Code	
Course Title	BUSINESS ECONOMICS
Credits	6
Hours/Week	6
Category	MC
Semester	IV
Regulation	2024
Course Overview • Familiarize fundamental principles of economics. • Comprehend both theoretical and practical aspects relevant to business. • Infer key concepts such as wealth, welfare, and scarcity within the scope of economics. • Analyse the positive and normative economics while covering critical aspects such as demand and supply functions, consumer behaviour, production theory, and market structures. • Evaluate national income, economic welfare, and the role of consumption, saving, and investment in economic systems.	

Course Objectives • Introduce core economic concepts, including wealth, welfare, scarcity, and positive vs. normative economics. • Explain business economics, covering opportunity cost, profits, and marginal analysis. • Examine demand, supply, and market equilibrium. • Analyze consumer behaviour and producer equilibrium using key economic theories. • Explore market structures and their pricing and output mechanisms.	
Prerequisites	Basic knowledge of banking

SYLLABUS

S.No	Content	Hrs	COs	Cognitive Level
I	UNIT I Introduction to Economics – Wealth, Welfare and Scarcity Views on Economics - Positive and Normative Economics- Definition – Scope and Importance of Business Economics -Concepts: Production Possibility frontiers – Opportunity Cost – Accounting Profit and Economic Profit – Incremental and Marginal Concepts – Time and Discounting Principles – Concept of Efficiency – Cost and Revenue concepts.	15	CO 1 CO 2 CO 3	K1, K2, K3, K4, K5, K6
II	UNIT II Demand and Supply Functions: Meaning of Demand – Determinants and Distinctions of demand – Law of Demand – Elasticity of Demand – Demand Forecasting – Supply concept and Equilibrium.	15	CO 1 CO 2 CO 3	K1, K2, K3, K4, K5, K6
III	UNIT III Consumer Behaviour: Law of Diminishing Marginal utility – Equi-marginal Utility – Indifference Curve – Definition, Properties and equilibrium- Production: Law of Variable Proportion – Laws of Returns to Scale – Producer's equilibrium – Economies of Scale Cost Classification – Break Even Analysis – Consumers equilibrium – Consumer surplus.	15	CO 1 CO 2 CO 3	K1, K2, K3, K4, K5, K6
IV	UNIT IV Product Pricing: Price and Output Determination under Perfect Competition, Monopoly Discriminating monopoly – Monopolistic Competition – Oligopoly – Pricing objectives and Methods	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
V	UNIT V National Income: Determination of National Income – per Capital Income problem –Economic Welfare – Determinants of consumption, saving and investment.	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6

Text Book Reference

1. S.Shankaran, Business Economics - Margham Publications - Ch -17
2. P.L. Mehta, Managerial Economics – Analysis, Problems & Cases - Sultan Chand & Sons - New Delhi – 02
3. Francis Cherunilam, Business Environment - Himalaya Publishing House -Mumbai –04.
4. Peter Mitchelson and Andrew Mann, Economics for Business - Thomas Nelson Australia -Can - 004603454.
5. C.M.Chaudhary, Business Economics - RBSA Publishers - Jaipur - 03.
6. H.L. Ahuja, Business Economics – Micro & Macro - Sultan Chand & Sons - New Delhi – 55

Suggested Readings

- "Principles of Economics" by N. Gregory Mankiw
- "Managerial Economics" by William F. Samuelson and Stephen G. Marks
- "Business Economics: A Contemporary Approach" by Peter Earl and Tim Wakeley
- "Economics for Managers" by Paul G. Farnham
- "Managerial Economics: Applications, Strategy, and Tactics" by James R. McGuigan, R. Charles Moyer, and Frederick H. deB. Harris

Web Resources

1. Khan Academy - Microeconomics and Macroeconomics
2. Investopedia – Business Economics
3. MIT OpenCourseWare – Economics
4. Coursera – Business and Financial Economics
5. Harvard Business Review – Economics

Course Outcomes (COs) and Cognitive Level Mapping

Cos	CO Description	Cognitive Level
CO 1	Define and differentiate between key economic concepts such as wealth, welfare, scarcity, and positive and normative economics.	K1, K2
CO 2	Analyze the laws of demand and supply, forecast demand, and understand market equilibrium through elasticity and other relevant determinants.	K3, K4
CO 3	Evaluate national income determination methods and assess how consumption, saving, and investment drive economic welfare and growth in a nation.	K5, K6

Course Code	
Course Title	Entrepreneurship and Design thinking
Credits	05
Hours/week	05
Category	Major Core
Semester	IV
Regulation	2024
Course overview: • Understand the role and impact of entrepreneurs, exploring the factors that influence entrepreneurial success. • Learn the processes of creativity and innovation in entrepreneurship, focusing on ideation, problem-solving, and market implementation. • Examine international entrepreneurship opportunities and the importance of strategic planning for business scaling. • Analyse different financial sources and the functions of key entrepreneurial support institutions. • Explore modern trends like digital nomadism and apply design thinking to develop user-centric, innovative products.	
Course Objectives: • Equip students with the ability to identify and assess entrepreneurial opportunities, understanding the global impact and role of entrepreneurs in economic development. • Encourage creative thinking and innovation, teaching methods to generate, evaluate, and transform ideas into viable business solutions. • Provide insights into the challenges and opportunities of international entrepreneurship, preparing students for global business ventures. • Build knowledge of various financing options and institutional support available to entrepreneurs, emphasizing strategic financial planning and resource management. • Integrate design thinking methodologies to create practical, cost-effective, and user-centric products, enhancing problem-solving skills in business contexts.	
Prerequisites	Basic knowledge on Venture

SYLLABUS

UNIT	CONTENT	Hrs	Cos	Cognitive level
UNIT-1	Meaning of Entrepreneur-Determinants and importance of entrepreneurship -Entrepreneurship Development Creativity and Innovation: The role of creativity, the innovation Process, Sources of New Ideas, Methods of Generating Ideas, Creative Problem Solving, Entrepreneurial Process. International Entrepreneurship-Opportunities: The nature of international entrepreneurship.	15	CO1 CO2 CO3 CO4 CO5	K1,K2,K3 K4,K5,K6
UNIT-II	Strategic Growth, need for Strategic Planning, Understanding the growth stage, Meaning of business plan - Business plan process - Advantages of business planning–Importance of Business Model-Components of an Effective Business Model	12	CO1 CO2 CO3 CO4 CO5	K1,K2,K3 K4,K5,K6
UNIT -III	SIDO, SISI, NSIC, SIDCO, DIC – their functions – SIDBI’S schemes. - Fixed capital Requirements – Working capital Requirements- Source of finance: Venture capital- nature & process, Business Angels,- crowd funding Government grants, Business incubators- financial bootstrapping & choosing the best financial sources. Digital Nomadism - Globalized business – E-entrepreneurship - Social commerce - The Gig economy	15	CO1 CO2 CO3 CO4 CO5	K1,K2,K3 K4,K5,K6
UNIT-IV	Mastering the visualization of challenges- addressing them - identifying key pain points - uncovering user needs and expectations - solving problems - - brainstorming - evaluating potential opportunities engaging with user feedback- generating innovative solutions - developing prototypes - rapid tests, authenticate results.	15	CO1 CO2 CO3 CO4 CO5	K1,K2,K3 K4,K5,K6

UNIT -V	Overview of the design thinking approach - application in creating cost-effective and user-friendly products – blockages of new product innovation process - exploring the Industry 5.0 environment - new digital technologies - venturing into data-driven entrepreneurship.	15	CO1	K1,K2,K3
			CO2	K4,K5,K6
			CO3	
			CO4	
			CO5	

Textbooks:

1. Entrepreneurship Development and Business Ethics: Mukherjee & Roy, Oxford University Press.
2. Entrepreneurship Development and Business Ethics-Desai V- Himalaya Publishing House- Himalaya Publishing House
3. Tendon ,C: Environment and Entrepreneur; Clugh Publications, Allahabad.
4. Siner A David: Entrepreneurial Megabooks; John Wiley and Sons, New York.
5. Srivastava S. B: A Practical Guide to Industrial Entrepreneurs; Sultan Chand and Sons, New Delhi.
6. Prasanna Chandra: Protect Preparation, Appraisal, Implementation; Tata McGraw Hill. New Delhi.
7. Christian Mueller- Roterberg, Handbook of Design Thinking –Tips and Tools for how to design Thinking, Independently Published, US, 2018.

Suggested Readings

- Kuratko and Rao, Entrepreneurship: A South Asian Perspective; Ferrell, Fraedrich, Farrell, Business Ethics, Cengage Learning
- Ferrell, Fraedrich, Farrell, Business Ethics, Cengage
- Entrepreneurship, R. Saibaba, Kalyani Publishers, New Delhi.
- Entrepreneurship Deveelopment and Business Ethics, Sanjeet Sharma – V.K. Global Pvt. Ltd., New Delhi.
- SS Khanka, Entrepreneurial Development, S. Chand & Co, Delhi.
- Rao, V.S.P – Business Entrepreneurship & Management – Vikash Publication
- Desai, Vasant. Dynamics of Entrepreneurial Development and Management. Mumbai, Himalaya Publishing House.

Web Resources:

- <https://www.studynama.com/>
- <https://www.bing.com/ck>
- <https://www.slideshare.net/>

- <https://www.scribd.com/>

Course Outcomes (COs) and Cognitive Level Mapping

Cos	CO Description	Cognitive Level
CO 1	Gain a comprehensive understanding of key entrepreneurial concepts, including opportunity recognition, business model development, and the fundamentals of startup operations	K1, K2
CO 2	Create a detailed business plan that includes market analysis, financial projections, and strategic planning.	K3, K4
CO 3	Demonstrate the ability to apply entrepreneurial skills such as innovation, risk management, and leadership in real-world scenarios.	K5, K6

Course Code	
Course Title	Financial Analytics
Credits	06
Hours/Week	05
Category	Major Elective (ME) – Theory
Semester	IV
Regulation	2024
Course Overview 1. Comprehensive introduction to financial analytics, including its definition, relevance, and recent trends. 2. Analyse the financial time series and their statistical characteristics, with a focus on asset returns. 3. Learn about fundamentals of asset portfolio construction, including Markowitz Theorem, CAPM, and portfolio optimization. 4. Exploration of high-frequency trading data and its empirical characteristics.	
Course Objectives 1. Understand the fundamentals of financial analytics, including its relevance and scope, and identify recent trends in the field. 2. Analyze financial time series and their distributional properties, and apply statistical models to assess asset returns. 3. Construct and optimize investment portfolios using models like the Capital Asset Pricing Model (CAPM) and Markowitz Theorem. 4. Apply derivative pricing models such as the Black-Scholes model to real-world data and perform case studies involving asset portfolios, trading data, and risk estimation.	

Prerequisites	Basic Knowledge of Finance and Analytics
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SYLLABUS

S. No	Content	Hrs	COs	Cognitive Level
I	Introduction to Financial Analytics: Definition, relevance and scope financial Analytics, recent trends in financial analytics. Financial Time Series and Their Characteristics: Asset Returns, Distributional Properties of Returns, Review of Statistical Distributions and properties of financial time series.	15	CO 1 CO 2 CO 3	K1, K2, K3, K4, K5, K6
II	Asset Portfolio Models: Basics of portfolio construction, Markowitz Theorem, Capital Asset Pricing Model, Diversification and Portfolio Optimization. Modeling Volatility and Risk: Characteristics of volatility.	15	CO 1 CO 2 CO 3	K1, K2, K3, K4, K5, K6
III	Measuring and modeling risk. Data Analysis: Non synchronous Trading, Bid–Ask Spread of trading Prices, Empirical Characteristics of Trading Data, Models for Price Changes, Duration Models.	15	CO 1 CO 2 CO 3	K1, K2, K3, K4, K5, K6
IV	Modeling Credit Risk: Corporate Liabilities as contingent claims, Endogenous default boundaries and optional Capital Structure, Intensity Modeling, Rating based term-structure models, Credit risk and interest-rate Swaps, Modeling dependent defaults.	18	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
V	Derivative Pricing: Issues regarding derivative markets. Brownian motion, Black - Sholes model. Modeling derivative prices. Case Studies - Asset Portfolio construction from BSE; Empirical Characteristics of Trading Data; Sectoral Index derivative.	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6

Text Books

1. Ruey S. Tsay (2012), “An Introduction to Analysis of Financial Data”
2. "Time Series Analysis" by James D. Hamilton
3. "Financial Risk Modeling and Portfolio Optimization " by Bernhard Pfaff

Suggested Readings

1. "Financial Analytics with R: Building a Laptop Laboratory for Data Science" by Mark J. Bennett and Dirk L. Hugen

Web Resources

1. <https://www.investopedia.com/>
2. <https://www.khanacademy.org/economics-finance-domain/core-finance>
3. <https://www.quantstart.com/>
4. https://en.wikipedia.org/wiki/Autoregressive_conditional_heteroskedasticity

Course Outcomes (COs) and Cognitive Level Mapping

Cos	CO Description	Cognitive Level
CO 1	Students will gain the ability to understand and evaluate and interpret the distributional properties of financial time series, assess asset returns, and apply statistical models to financial data.	K1, K2
CO 2	Students will develop skills in modeling credit risk, including evaluating corporate liabilities and pricing derivatives using models like Black-Scholes, with practical applications to real-world financial data.	K3, K4
CO 3	Students will be able to construct and optimize asset portfolios, model volatility.	K5, K6

SEMESTER V

Course code	
Course title	FINANCIAL MANAGEMENT
Credits	6
Hours/Week	6
Category	Major Core (MC) – Theory
Semester	V
Regulation	2024

Course Overview:**This course-**

- Introduces concepts of financial management and the role of finance manager.
- Evaluates the investments decisions by incorporating risk and return analysis.
- Explains financial tools and techniques that maximize the value of the firm with a strategic financial decision-making process.
- Enlightens on various theories on capital structure, cost of capital and working capital management.

Course Objective:**The students will be able to-**

- Understand the concept and significance of Financial Management
- Gain knowledge on Time value of money and its implications.
- Estimate the financial requirements of the organization.
- Identify and evaluate various sources of funds.
- Appraise and decide various appropriate corporate investment options.

Prerequisites

Basic knowledge about Financial Management.

Syllabus

Unit	Content	Hours	COs	Cognitive Level
I	Finance Functions Financial Management – Meaning, Significance, Objectives - Goals of Financial management, Finance Functions - Factors affecting Financial Decision - Functions of Finance Manager-Strategic financial decisions- Financial Policy and Corporate Strategy-Time value of money: Present Value and Compound Value.	12	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
II	Capital Structure Meaning –Factors affecting capital structure-EBIT-EPS Analysis,Indifferent Point of EBIT , Capital Structure theories – Leverage-Meaning and types of Leverages.	18	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6

III	Cost of Capital Meaning and Significance - Theories of Cost of Capital-Cost of Debt , Preference Share and Equity - Capital Asset Pricing Model - Weighted Average Cost of Capital	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
IV	Capital Budgeting & Dividend theories Meaning and Significance –Capital Budgeting Process –Project Appraisal techniques –Selection Process under Capital Rationing – Dividend theories- Leasing- Types of lease- Lease or Buy Analysis.	18	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
V	Working Capital Management: Working Capital Management – Factors affecting Working Capital-Financing of Working Capital - Receivables Management – Meaning and Significance –Cost - Benefit Analysis of Cash Discount – Collection expense and Bad debt Losses – Change in Credit period and its effect on Sales.	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6

Study Text:

1.Maheshwari S.N., Financial Management, Sultan Chand & Sons, New Delhi, 2014.

Suggested Readings:

1. Khan and Jain, Management Accounting & Financial Management, Tata McGraw Hill Publishers, New Delhi, 2007.
2. Kishore M Ravi, Financial Management, Taxman Publication New Delhi 2013.
- 3.Eugene F Brigham (2015), Financial Management: Theory & Practice (1st ed), Cengage Learning Custom Publishing Ravi M Kishore (2016), Financial Management (4th ed.), Taxmanns Horne, J.C. Van and Wackowich. Fundamentals of Financial Management. 9tged. New Delhi Prentice Hall of India

Web resources:

www.bseindia.com
www.nptel.ac.in

COURSE OUTCOMES

Upon successful completion the students will be able to:

Cos	Statements	Cognitive Level
CO 1	Demonstrate comprehensive mastery of financial management principles, theories, and practices across diverse business contexts, while effectively executing strategic financial plans to achieve organizational goals and address financial challenges.	K1, K2
CO 2	Utilize analytical tools to assess financial markets, investment behaviors, and competitive environments, identifying and capitalizing on financial opportunities.	K3, K4
CO 3	Develop and maintain strong financial strategies to enhance organizational performance and sustainability, while also evaluating and prioritizing ethical considerations and corporate social responsibility in financial decision-making.	K5, K6

Course Code	
Course Title	INCOME TAX LAW & PRACTICE
Credits	6
Hours/Week	6
Category	MC
Semester	V
Regulation	2024
Course Overview 1. Learn the fundamentals and significance of Income Tax in personal and business finance. 2. Comprehend the different types of income and how they are taxed. 3. Explore tax brackets, rates, and how they apply to various income levels. 4. Gain insights about deductions, exemptions, and strategies to reduce taxable income. 5. File income tax returns accurately and maintain compliance with tax laws.	
Course Objectives 1. Understand the fundamental concepts and purpose of Income Tax in financial systems. 2. Identify and classify different types of income subject to taxation. 3. Analyze tax brackets, rates, and apply them to individual and business income scenarios. 4. Learn to utilize deductions, exemptions, and credits to optimize tax liabilities.	

5. Develop skills to accurately file income tax returns and ensure compliance with tax regulations.

Prerequisites

Basic knowledge of Income tax.

SYLLABUS

S. No	Content	Hrs	COs	Cognitive Level
I	INTRODUCTION AND INCIDENCE OF TAXATION - Structure of the Indian Taxation System – Brief History of Income Tax in India – Basis and Procedure of Charging Income Tax – Important Definitions: Assessee, Person, Assessment Year, Previous Year, Income, Gross Total Income, Total Income, Casual Income, and Agricultural Income – Income Tax Rates Applicable – Tax Planning, Tax Avoidance, Tax Evasion, and Tax Management – Determination of Residential Status of Different Persons – Determination of Tax Incidence – Income Exempt from Tax.	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
II	INCOME FROM SALARIES - Meaning of Salary – Important Points for Computing Salary Income – Allowances: Fully Taxable Allowances, Partially Taxable Allowances, and Fully Exempt Allowances – Valuation of Perquisites – Treatment of Retirement/Superannuation Benefits – National Pension Scheme (NPS) – Deductions from Salary – Computation of Taxable Income under the Head 'Salary.'	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
III	INCOME FROM HOUSE PROPERTY - Basis of Charge – Exempted Income from House Property – Annual Value, Factors Determining the Annual Value – Municipal Rental Value (MRV), Fair Rental Value (FRV), Standard Rent (SR), Expected Rental Value (ERV), Composite Rent (CR), Unrealized Rent (UR), Loss Due to Vacancy (LDV) – Standard Deduction – Computation of Income from House Property.	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
IV	INCOME FROM BUSINESS/PROFESSION - Important Terms – Basis of Charge – Principles for Charging Income under Business or Profession – Expenses Expressly Allowed – Expenses on Scientific Research – Other Deductions Allowed – General Deductions Allowed – Expenses Expressly Disallowed – Disallowed Expenses u/s 40 & 40A – Losses Allowable for	18	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6

	Deduction – Treatment of Depreciation – Computation of Taxable Income from Business and Profession.			
V	INCOME FROM CAPITAL GAINS AND OTHER SOURCES - Meaning of Various Terms in Capital Gains – Cost Inflation Index – Exemptions Available u/s 54 – Computation of Taxable Income from Capital Gains – Income Chargeable under 'Other Sources' – Kinds of Securities – Deductions Allowed under Income from Other Sources – Computation of Taxable Income from Other Sources.	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6

Text Books

1. Vinod K. Singhania, Income Tax Law and Practice, Taxman's.
2. Srinivasan T, Income Tax Law and Practice, Vijay Nicole Imprints, Chennai.
3. Prof. Preeti Rani Mittal & Dr. Anshika Bansal, Income Tax Law and Practice, Sultan Chand & Sons.

Suggested Readings

1. T.S Reddy & Y. Hari Prasad Reddy, Income tax – Theory, Law & Practice, Margham publications.
2. Dr H C Meharotra and Dr S P Goyal, Income Tax Law & Accounts, Sahityabhavan publications.
3. Gaur & Narang, Income Tax Law & Practice, Kalyani Publishers.

Web Resources

1. <https://incometaxindia.gov.in>
2. <https://cbseacademic.ac.in>
3. <https://dor.gov.in>
4. <https://www.icai.org>
5. <https://www.icmai.in>

Course Outcomes (COs) and Cognitive Level Mapping

Cos	CO Description	Cognitive Level
CO 1	Develop the ability to analyze, interpret, and present data insights to guide strategic business decisions across various functions like marketing, finance, and operations.	K1, K2
CO 2	Gain practical experience in building and using predictive models, such as regression and machine learning techniques, to forecast business trends and optimize decision-making.	K3, K4
CO 3	Demonstrate proficient in using industry-standard analytics tools (e.g., Excel, SQL, Tableau) to solve real-world business challenges, improving operational efficiency and business performance through data insights.	K5, K6

Course Code	
Course Title	Elements of Cost Accounting
Credits	06
Hours/week	06
Category	Major Core (MC) -Problem with theory
Semester	V
Regulation	2024
Course overview: • Gives an understanding on the elements of cost, preparation cost sheet by identifying and classifying the cost at different stages of production. • Helps in applying Job, Batch, Contract, Operation and Process costing in appropriate industry. • Elucidates fixation of price to be charged from the client or customer. • Examines the difference in the profits or loss computed using cost accounting and financial accounting records.	
Course Objective. 1. Comprehend fundamental concepts in cost accounting and adeptly create cost sheets and quotations. 2. Grasp the principles of material control, enabling the accurate computation of purchase price for materials. 3. Assess and appraise labour cost, as well as effectively allocate overheads. 4. Explore the significance of different costing methods, gaining a comprehensive understanding. 5. Apply accounting techniques proficiently in both contract and operating cost scenarios.	
Prerequisites	Basic knowledge of Cost Accounting

SYLLABUS

Unit	CONTENT	Hrs	Cos	Cognitive level
I	Introduction & cost sheet preparation Cost accounting: Objectives - Classification of Costs – Cost Unit – Cost Centre- Elements of Cost - Financial Accounting vs. Cost Accounting – Steps in installing a Cost Accounting system – Preparation of cost sheet – Tenders and Quotations of cost sheet.	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
II	Materials control Material Control: Purchasing– Centralised Vs Decentralised - Stores Keeping – Stock level determination – EOQ & ABC Analysis – Purchase price computation - Treatment of Scrap, Spoilage, Wastage	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6

	& Defectives - Pricing of issue of material – FIFO, LIFO & Weighted Average methods.			
III	Labour cost & overheads Labour Costing & Control – Payroll Accounting – Treatment of Idle time & Over time – Methods of Wage payments - Piece Rate – straight – differential piece rate - Taylor’s differential piece rate, Merrick’s Multiple piece rate – Time rate - Incentive Methods – Halsey incentive scheme, Rowan Plan, Group Incentive Scheme- Labour Turn Over –Causes, effects and prevention. Overheads– Classification, Allocation, Apportionment - Redistribution of overheads - Absorptions– methods of absorption - Machine hour rate – Activity based Costing.	12	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
IV	Job, batch & contract costing Job Costing: Features – Objectives – Merits & limitations – Procedure of job order cost system – Batch Costing: Determination of EBQ or Economic lot size – Contract costing: Characteristic features of contracts and contract costing – Recording of costs of contract – Recording of value and profit on contracts – Profit or loss on contracts.	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
V	Process & operating costing Process Costing: Meaning – Features – Difference between process & job costing – Important aspects of process costing – Process losses – Inter process profit. Concept - Features - Performa of Operating Costing and Problems on Transport Costing Only. Recent Advance in Cost Accounting: Target Costing, Life cycle Costing, Transfer pricing and Throughput Accounting (Only theory)	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
	Textbooks: 1. Jain S.P & Narang K. L. (2022), Cost Accounting, Kalyani Publications, New-Delhi. 2. Reddy T.S. & Hari Prasad Reddy Y (2020), Cost Accounting, Margham Publications, Chennai. 3. Arora M. N.(2016).Methods and Techniques of Cost Accounting(4th ed.). India: Himalaya Publishing House.			
	Suggested Readings • Saxena V. K. & Vashist C. D (2011), Cost Accounting, Sult Chand & Company, New-Delhi. • Maheswari S.N (2020), Principles of Cost Accounting, Sult Chand Publications, New Delhi			

	Web Resources 1. https://doe.gov.in/office 2. http://www.cac.gov.in/ 3. www.icmai.in 4. https://www.mca.gov.in/content/mca/global/en/about-us/affiliated-offices/icoai.html 5. www.accountingtools.com			
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Course Outcomes (COs) and Cognitive Level Mapping

	CO Description	Cognitive Level
CO1	The program fosters cost-consciousness and prepares students for professions in cost management.	K1 K2
CO2	Students will understand the numerous components of cost, cost classification, and decision-making.	K3 K4
CO3	Students must have a fundamental understanding of cost principles, including costing and accounting, as a requirement.	K5 K6

Course Code	
Course Title	MACHINE LEARNING WITH R/PYTHON
Credits	6
Hours/Week	6
Category	MC
Semester	V
Regulation	2024

Course Overview - Provides a comprehensive introduction to machine learning, focusing on practical implementation using R/ Python. - Students will develop a strong foundation in data preparation, exploration, and modelling techniques. - The course covers essential machine learning algorithms including linear and logistic regression, clustering, and market basket analysis. - Through hands-on exercises and projects, students will gain practical experience in building and evaluating machine learning models.	
Course Objectives The Student will be able to- - After this course students will gain critical knowledge and understanding about major Data Mining procedures and learning about Linear Regression, Logistic Regression, Market Basket Analysis, Cluster Analysis, and Machine Learning fundamentals. - Apply and practice this gained knowledge in variety of Business Scenarios. - Data cleaning and preparation techniques to various datasets to improve data quality and suitability for analysis. - Develop and interpret linear and logistic regression models using R/Python Programming, understanding the significance of model coefficients and diagnostics.	
Prerequisites	Basic knowledge of Programming Language and Data Analysis

SYLLABUS

S.No	Content	Hrs	COs	Cognitive Level
I	Data Cleaning and Preparation Data Import and Exploration: Understanding different data formats, basic exploratory data analysis (EDA), EDA with R/Python Programming. Data Cleaning: Handling missing values, outlier detection and treatment, data normalization and standardization. Data Transformation, feature engineering.	8	CO1, CO2,	K1, K2, K3, K4,
II	Linear Regression Simple Linear Regression: Model assumptions, estimation, hypothesis testing, and interpretation of coefficients. Multiple Linear Regression: Model building, interpretation of coefficients, multicollinearity, and model diagnostics. Model Evaluation: R-squared, adjusted R-squared, Mean Squared Error (MSE), Root Mean Squared Error (RMSE), Mean Absolute Error (MAE).	8	CO1, CO2,	K1, K2, K3, K4,

III	Logistic Regression Introduction to Classification, confusion matrix, accuracy, precision, recall, F1-score. Logistic Regression Model: Developing the model with R/Python Programming, Odds and logit, model estimation, interpretation of coefficients. Model Evaluation: ROC curve, AUC, sensitivity, specificity.	8	CO1, CO2, CO3	K1, K2, K3, K4, K5, K6
IV	Market Basket Analysis Introduction to Association Rule Mining, Apriority Algorithm, Support, Lift, Confidence, Market Basket Analysis Applications, Evaluation Metrics for Association Rules. Model building with R/Python.	8	CO1, CO2, CO3	K1, K2, K3, K4, K5, K6
V	Clustering Unsupervised learning, distance metrics, K-Means Clustering: Model building of K-Means with R/Python Programming, Algorithm, determining the optimal number of clusters, evaluation. Hierarchical Clustering: Agglomerative and divisive methods, dendrograms, Model building with R/Python Programming.	8	CO1, CO2, CO3	K1, K2, K3, K4, K5, K6

Text Books

4. Han, Jiawei and Kamber, Micheline. (2012). Data Mining: Concepts and Techniques. Morgan Kaufman Publishers.
5. Tang, P.N., Steinback, M. and Kumar, V. (2014). Introduction to Data Mining. Pearson.
6. Myatt, Glenn and Johnson, Wayne. (2009). Making Sense of Data II. Wiley.

Suggested Readings

5. AnandRajaraman. (2011). Mining of Massive Datasets. Cambridge University Press.
6. Mitchell (2013). Machine Learning. McGraw Hill.

Web Resources

11. <https://app.datacamp.com/learn/courses/understanding-machine-learning>
12. <https://app.datacamp.com/learn/courses/preprocessing-for-machine-learning-in-python>
13. <https://app.datacamp.com/learn/courses/machine-learning-for-business>
14. <https://app.datacamp.com/learn/courses/introduction-to-importing-data-in-python>

Course Outcomes (COs) and Cognitive Level Mapping

Cos	CO Description	Cognitive Level
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CO 1	Understand a variety of machine learning algorithms, including supervised learning and unsupervised learning.	K1, K2
CO 2	Apply knowledge to preprocess and engineer features for machine learning tasks, including handling missing data, outliers, normalization, standardization, and feature selection.	K3, K4
CO 3	Evaluate the performance of machine learning models using appropriate metrics, techniques, and tools and will also be able to deploy trained models into real-world applications.	K5, K6

Course Code	
Course Title	Research methodology
Credits	03
Hours/week	04
Category	Major Skilled (Theory) (RC)
Semester	V
Regulation	2024
Course overview: • An overview of research methodology, including fundamental concepts used in quantitative and qualitative research methods" Includes computer applications for research. • This course introduces research methods as they apply to the higher education field of study • This course it's a methodical, logical strategy to address a research issue. • This course will provide an opportunity for participants to establish or advance their understanding of research through critical exploration of research language, ethics, and approaches.	
Course Objective. • To foster in the student an organized and scientific attitude to performing research; • To lay the groundwork for effective research work for the select few who would require it in their academic pursuits and/or professional careers. • To acquire effective in data gathering, analysis, and interpretation. • Improve communication skills for effectively presenting study findings. • To provide hands-on experience using research approaches to solve real-world challenges.	

Prerequisites	Theoretical knowledge and technical knowledge

SYLLABUS

Unit	CONTENT	Hrs	Cos	Cognitive level
I	Introduction to Research: Meaning of Research-Steps involved- Identification of Problem- Steps involved in the selection of problem-Research Design-Meaning and classification of research- characteristics of a good research problem - errors in selecting a research problem.	12	CO1 CO2 CO3	K1, K2, K3, K5, K6
II	Literature Review and Research Design Literature Review: – Library Usage – Different Types of Literature Review - Process of Literature Review – Different Formats of presenting Literature Review - Identification of Research Gap – Software’s available for Literature Review and Citation - APA 6th edition formats	12	CO1 CO2 CO3	K1, K2, K3, K5, K6
III	Sampling and Hypothesis Formulation Meaning- definition- factors of research design-steps- Sampling and population-techniques of sampling selection-characteristics of a good sample- sampling errors. - Hypothesis: Meaning of Hypothesis – Importance - Characteristics – Limitations - Concepts – Basic concepts concerning testing of hypothesis – Null Hypothesis and Alternative Hypothesis.	12	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
IV	Data Analysis and Interpretation (Using SPSS/MS Excel) Primary and secondary data-sources-Tools and Techniques of Data Collection advantages/disadvantages-Observations-survey-interview-panel method-schedule-questionnaire-aspects of framing questionnaire. Validating questionnaire through Pilot Study, Introduction to simple Data Analysis Tools.	12	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
V	Research Report Editing-Coding-Classsification-Tabulation-Analysis- Interpretataion -Research Types -format-style of writing report- references-bibliography- Ethics in Research.	12	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
	Text Books - Gupta, S.K. RangiPraneet. (2016) Business Research Methods. Ludhiana: Kalyani Publishers. - Business Research Methods – Donald Cooper & Pamela Schindler, TMGH, 9th edition			

	- Research Methodology – C.R.Kothari - Research Design: Qualitative, Quantitative, and Mixed Methods Approaches by John W. Creswell and J. David Creswell			
	Suggested Readings. - Krishnaswami, O. (2012). Research Methodology. Mumbai: Himalaya publishing House. - Malhotra, N. K. (2008). Marketing research: An applied orientation, 5/e. Pearson Education India. - Bhandarkar, W. T. (2006). Methodology and Techniques of Social Research. Mumbai: Himalaya Publishing House. - Ethics in Science Education, Research and Governance- Kambadur Muralidhar, Amit Ghosh, Ashok Kumar Singhvi - INSA (2019)			
	Web Resources https://www.udemy.com/topic/research-methods/ https://onlinecourses.nptel.ac.in/ www.onlinecourses.swayam2.ac.in/			

Course Outcomes (COs) and Cognitive Level Mapping

	CO Description	Cognitive Level
CO1	Research Methodology enables students to obtain, analyse, and interpret knowledge to address societal challenges.	K1 K2
CO2	Research methodology covers several aspects of social and business research, including issue identification, study design, data collecting, sampling, hypothesis testing, data processing and interpretation, and report production.	K3 K4
CO3	As a criterion, students should have a basic knowledge about the concepts relating to research, basic statistics and business.	K5 K6

SEMESTER VI

Course Code	
Course Title	Human Resource Management
Credits	05
Hours/Week	05
Category	Major core (MC) – Theory
Semester	VI
Regulation	2024
Course Overview • Gives understanding about basic concepts and functions of HRM. • Gives an exposure to human resource planning process and its implication. • Get acquainted with process of recruitment, selection, training, development and compensation. • Relates to implications of performance appraisal system, career planning and development and succession planning of employees. • Provide innovative solution to challenges in human resource management.	
Course Objectives • Analyse human resource planning and forecasting techniques. • Investigate and interpret the key procedures in recruitment and selection • Illustrate the essential features of a human resource planning system • Analyse and evaluate significant contemporary issues in human resource management including HRM's contribution to organisational performance • Apply and communicate the appropriate theoretical models in human resource management.	
Prerequisites	Basic knowledge of Human Resource Management

SYLLABUS

S.No	Content	Hrs	COs	Cognitive Level
I	HRM – importance – Characteristics – Qualities of a good HR Manager – Changing roles of HR Managers –Functions of HRM- Difficulties and challenges faced by HR managers – Recent trends in HR.	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
II	Definition - Concepts of HRM – Characteristics – Step's in HRP – Succession Planning. Job Analysis – Job Description – Job specification – Recruitment -Selections – Testing – Interviews - Kinds of interviews – Appointment Order.	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
III	Definition – Objectives –principles of learning-distinction between learning and development –Steps in training – On the job and off the job training – Evaluation of training effectiveness – Competency – stages of Competency – Mentoring and coaching.	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
IV	Objectives of appraisals – Steps in appraisals - Traditional and Non-traditional methods of performance appraisals – Performance Counseling.	18	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
V	Introduction – Managing Errors – Conflicts – Causes – Managing Conflicts – Managing equality and diversity - Employee involvement and empowerment - Human Resource Information Systems- Human Resource Accounting	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
Text Books 1. Gupta C.B, Human Resource Management, Sultan Chand and Sons, 14th Edition, New Delhi, 2012. 2. Aswathappa K, Human Resource Management, 6th Edition, Tata McGraw-Hill Education Pvt. Ltd, 2010.				

Suggested Readings

1. Jyothi P & Venkatesh D.N, Human Resource Management, Oxford University Press, New Delhi, 2006.
2. Mamoria C.B, & Rao V. S. P, Personnel Management (Text and Cases), Himalayan Publications, New Delhi, 2012.
3. Wayne Mondy Robert, Human Resource Management, Pearson Education, 12th Edition, New Delhi, 2010.

Web Resources

1. <https://www.aacsb.edu>
2. https://www.tvu.edu.in/wp-content/uploads/2017/06/cbcs_syllabus/M.A.%20human%20resource%20mgt.pdf
3. <https://www.dmu.ac.uk/study/courses/courses.aspx>

Course Outcomes (COs) and Cognitive Level Mapping

Cos	CO Description	Cognitive Level
CO 1	Understand the foundational concepts, evolution, objectives, and classifications of HRM, as well as the application of general principles in HR functions and management processes.	K1, K2
CO 2	Analyze and evaluate the HR planning and recruitment processes, including the definition, concepts, and steps involved in HRP, job analysis, and the procedures for recruitment and selection.	K3, K4
CO 3	Demonstrate proficiency in learning and development techniques, including the principles of training, evaluation of training effectiveness, and application of competency models and coaching practices.	K5, K6

Course Code	
Course Title	Management Accounting
Credits	05
Hours/Week	05
Category	Major core (MC) – Problem with theory

Semester	VI
Regulation	2024
Course Overview The course aims to ● Impart knowledge on various management accounting tools. ● Provide ability to analyze the financial statements of a company through ratio analysis. ● Enable application of managerial technique of planning by preparing different kinds of budgets. ● Develop the competency of managerial decision making through the application of marginal costing. ● Enhance the ability to prepare fund flow and cash flow statements.	
Course Objectives ● Get equipped in Financial, Cost, and Management accounting principles, evaluating financial statements like Funds Flow and Cash Flow Statement, and understanding their objectives, importance, and limitations. ● Apply ratio analysis techniques to interpret critical ratios such as profitability, turnover, and financial ratios, considering their advantages, limitations, and implications for decision-making. ● Develop budgeting, budgetary control, and profit planning skills while analysing variances using cost and variance analysis techniques. ● Explore the influence of technology, including data analytics, artificial intelligence, and cloud computing, on modern management accounting practices.	
Prerequisites	Basic knowledge about Management Accounting.

SYLLABUS

UNIT	CONTENT	Hrs	COs	Cognitive Level
I	Introduction, financial analysis Meaning and functions of financial accounting, cost accounting and management accounting-characteristics, scope, Comparison between cost accounting and management accounting, financial accounting and management accounting – Analysis of financial statements - users of financial statements, tools of financial statement analysis – Comparative statements, common size statements and trend analysis	12	CO 1 CO 2 CO 3	K1, K2, K3, K4, K5, K6
II	Ratio analysis Meaning of ratio analysis - modes of expression of ratios - steps in ratio analysis - advantages of ratio analysis - limitations of ratio analysis of traditional classification – profit and loss account ratios, balance sheet ratios, profit and loss account and balance sheet ratios -	12	CO 1 CO 2	

	functional classification - profitability ratios - turnover ratios - financial ratios and computation of various ratios.		CO 3	K1, K2, K3, K4, K5, K6
III	Funds Flow Statement and Cash Flow Statement Introduction & Meaning of Funds Flow Statement, difference between cash flow and fund flow statement, cash flow from operating, investing and financing activities, preparation of Cash flow statement as per direct and indirect method (AS-3 Revised). - marginal costing-advantages and limitations of marginal costing - calculation of P/V ratio, B.E.P, Margin of Safety, Contribution, sales required to earn a specific profit, and application of marginal costing techniques in decision making. Standard costing and variance analysis.	12	CO 1 CO 2 CO 3	K1, K2, K3, K4, K5, K6
IV	Budgetary Control and Management Reporting Meaning and definition of the budget - Essential features of the budget- budgeting-budgetary control-objectives-essentials of successful budgetary control –classification of budgets-on the basis of time the factors of production based on flexibility –based on functions-zero based budgeting- advantages and limitations of budgetary control-preparation of production, sales, materials, material purchase, production cost, cash, and flexible budgets.	12	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
V	Emerging trends in management accounting Technology and Management Accounting: Use of Data Analytics, Artificial Intelligence (AI), and Cloud Computing. Responsibility Accounting - Sustainability Reporting and Environmental Management Practices. Globalization and International Management Accounting Practices. Ethical Considerations in Management Accounting.	14	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6

Text Books

1. T.S. Reddy & Y. Hari Prasad Reddy, Management Accounting, Margham Publications, Chennai, 2017.
2. Solomon Raj L. & Arokiyasamy A., Management Accounting, Vijay Nicole Imprints Ltd, 2011.
3. Murthy A. & Gurusamy, Tata McGraw Hill Publications, 2010.

Suggested Readings

1. R.K. Sharma, Shashi K. Gupta, Rahul Sharma, Business Management, Kalyani Publications, New Delhi.
2. Robbins, S. P., Coulter, M., & DeCenzo, D. A. (2020). Fundamentals of Management. Pearson.
3. Daft, R. L., & Marcic, D. (2019). Understanding Management. Cengage Learning.
4. Stoner, J. A. F., Freeman, R. E., & Gilbert, D. R. (2021). Management. Pearson.
5. Hellriegel, D., & Slocum, J. W. (2019). Management: Principles and Applications. Cengage Learning

Web Resources

1. <https://www.accaglobal.com/gb/en/student/exam-support-resources.html>
2. <https://www.aicpa-cima.com/resources/article/management-accounting-practice-areas>
3. <https://www.mca.gov.in/content/mca/global/en/about-us/affiliated-offices/icoai.html>
4. www.accountingtools.com

Course Outcomes (COs) and Cognitive Level Mapping

Cos	CO Description	Cognitive Level
CO 1	Expertise in Financial, Cost, and Management accounting principles, evaluating financial statements like Funds Flow and Cash Flow Statement, and understanding their objectives, importance, and limitations.	K1, K2
CO 2	Apply ratio analysis techniques to interpret critical ratios such as profitability, turnover, and financial ratios, considering their advantages, limitations, and implications for decision-making.	K3, K4
CO 3	Develop budgeting, budgetary control, and profit planning skills while analyzing variances using cost and variance analysis techniques. Explore the influence of technology, including data analytics, artificial intelligence, and cloud computing, on modern management accounting practices.	K5, K6

Course Code

Course Title	Advanced Analytics with Python Programming
Credits	5
Hours/Week	5
Category	MC
Semester	VI
Regulation	2024

Course Overview - Recall to build, prune, and interpret decision trees; explore ensemble methods with random forests and evaluate model performance using metrics like accuracy and F1-score. - Comprehend linear and non-linear SVM techniques, apply the kernel trick, and perform model evaluation and hyperparameter tuning with practical Python exercises. - Gain insights in text preprocessing, feature extraction, and text classification using the NLTK library for tasks such as sentiment analysis and named entity recognition. - Infer the fundamentals of neural networks, including perceptrons, activation functions, backpropagation, and deep learning models, with hands-on Python implementation. - Explore AI concepts, including search algorithms, knowledge representation, and the distinction between machine learning and AI, along with applications and ethical considerations.

Course Objectives - Build and evaluate decision trees and random forests, focusing on model performance metrics and practical implementation. - Apply SVM techniques, including the kernel trick, for classification and regression tasks, with a focus on model tuning and evaluation. - Implement NLP methods for text preprocessing, feature extraction, and text classification using the NLTK library. - Design and train neural networks, including deep learning models, using Python to solve complex problems. - Explore AI concepts, including search algorithms and knowledge representation, and understand their practical applications and ethical considerations.

Prerequisites	Basic knowledge of Data Analytics and Python Programming
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SYLLABUS

S.No	Content	Hrs	COs	Cognitive Level
I	Decision Trees and Random Forests Decision Trees: Concept, building a decision tree, pruning, and interpretation. Random Forests: Ensemble learning, bagging, and feature importance. Model	8	CO1, CO2, CO3	K1, K2, K3, K4, K5, K6

	Evaluation: Accuracy, precision, recall, F1-score, confusion matrix. Model building with Python Programming.			
II	Support Vector Machines (SVM) Introduction to Support Vector Machines, Linear SVM and Kernel Trick, Non-linear SVM, SVM for Classification and Regression, Model Evaluation and Hyperparameter Tuning. SVM Model building with Python.	8	CO1, CO2, CO3	K1, K2, K3, K4, K5, K6
III	Natural Language Processing (NLP) Introduction to Natural Language Processing, Text Preprocessing, Feature Extraction and feature engineering, Sentiment Analysis, Named Entity Recognition, Text Classification. NLTK Library in Python.	8	CO1, CO2	K1, K2, K3, K4,
IV	Neural Networks Introduction to Artificial Neural Networks, Perceptron and Activation Functions, Multilayer Perceptron, Backpropagation, Deep Neural Networks and Deep Learning. NN Model building with Python.	8	CO1, CO2, CO3	K1, K2, K3, K4, K5, K6
V	Artificial Intelligence (AI) Introduction to Artificial Intelligence, Search Algorithms (Uninformed and Informed Search), Knowledge Representation and Reasoning, Machine Learning vs. Artificial Intelligence, AI Applications and Ethics.	8	CO1, CO2	K1, K2, K3, K4,

Text Books

7. Kevin Knight, Elaine Rich, B.Nair, 2017, Artificial Intelligence, McGraw.
8. Han, Jiawei and Kamber, Micheline, 2012, Data Mining: Concepts and Techniques, Morgan Kaufman Publishers.
9. AnandRajaraman, 2011, Mining of Massive Datasets, Cambridge University Press.
10. Mitchell, 2013, Machine Learning, McGraw Hill.

Suggested Readings

7. Jarke, Matthias, and Kuechler, William, 2018, *Data Warehousing and Data Mining*, Springer.
8. Russell, Stuart J., and Norvig, Peter, 2020, *Artificial Intelligence: A Modern Approach*, Pearson.

Web Resources

15. <https://campus.datacamp.com/courses/machine-learning-with-tree-based-models-in-python/classification-and-regression-trees?ex=1>

16. <https://campus.datacamp.com/courses/introduction-to-deep-learning-with-keras/introducing-keras?ex=4>
17. <https://campus.datacamp.com/courses/linear-classifiers-in-python/support-vector-machines?ex=1>
18. <https://app.datacamp.com/learn/courses/understanding-artificial-intelligence>

Course Outcomes (COs) and Cognitive Level Mapping

Cos	CO Description	Cognitive Level
CO 1	Understand and remember fundamental concepts, including definitions, basic operations, and simple applications for Machine Learning and Advance Analytics.	K1, K2
CO 2	Apply knowledge to perform complex tasks, including problem-solving and analytical techniques.	K3, K4
CO 3	Evaluate and create advanced solutions, including critical analysis , innovative application of techniques for Machine Learning and Advance Analytics.	K5, K6

Course Code	
Course Title	MODERN BANKING
Credits	5
Hours/Week	5
Category	MC
Semester	VI
Regulation	2024
Course Overview 11. Study the basics and evolution of Modern banks in the economy 12. Comprhend the new banking services – Online, mobile and digital banking services. 13. Explore the information of cyber security and fraud prevention. 14. Analyze the various features of commercial and corporate banks. 15. Use the Online banking, Mobile banking, and digital Payments effectively.	
Course Objectives 1. To develop a comprehensive understanding of the history, structure, and role of modern banks in the global economy. 2. To gain insights into the regulatory frameworks that govern banking operations, including national and international regulations. 3. To explore modern banking services such as online and mobile banking, and their impact on customer satisfaction and bank profitability. 4. To evaluate the role and contributions of the banking industry towards economy.	

Prerequisites	Basic knowledge of banking

SYLLABUS

S.No	Content	Hrs	COs	Cognitive Level
I	UNIT - 1 OVERVIEW OF BANKING SYSTEM Indian Banking System – Evolution - Reserve Bank of India as a Central Bank of the Country and its functions- State Bank of India and Its associate (Subsidiaries) Banks - Nationalization of Banks - Regional Rural Banks - Local Area Banks - New Private Sector Banks - Different Types of Banks in India - Commercial Banks - Co-Operative Banking System - National Bank for Agriculture and Rural Development (NABARD) - Small Industries Development Bank of India (SIDBI) - National Housing Bank (NHB) - Export-Import Bank of India (EXIM Bank) - Functions of Commercial Banks	15	CO 1 CO 2 CO 3	K1, K2, K3, K4, K5, K6
II	UNIT 2: RESERVE BANK OF INDIA Origin of RBI – Organization of RBI - Functions of RBI – Qualitative and Quantitative credit control of RBI – Cash Reserve Ratio – Bank Rate – Repo Rate – Reverse Repo Rate – Other Methods of Credit Control.	15	CO 1 CO 2 CO 3	K1, K2, K3, K4, K5, K6
III	UNIT 3: BANKER-CUSTOMER RELATIONSHIP General and Special Relationship between the Banker and the Customer – Obligations of the Banker and the Customer to each other - Know your Customer (KYC) guidelines - Services rendered by Banks - Power of Attorney - Banker's lien - Right of set off - Garnishee order - Payment and collection of Cheques – Dishonoring of Cheques – Duties and Responsibilities of paying and collecting banker – Protection available to paying and collecting banker – Crossing of Cheques – Types of Crossing - Endorsements - Types of Endorsements – Forged instruments.	15	CO 1 CO 2 CO 3	K1, K2, K3, K4, K5, K6
IV	Unit 4: DEPOSITS, LOANS AND ADVANCES Classification of Deposits – Kinds of Secured and Unsecured Loans – Distinction between Loans and Advances – Principles governing lending – Precautions to be observed while lending – Modes of Creating Charge - Lien - Pledge - Hypothecation – Mortgage. Transfer (NEFT), - Ombudsman – Redressal and Grievances – NPA in Banks.	18	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6

V	UNIT – 5 RECENT TRENDS IN BANKING. Corporate Governance in Banks - IT and Communication Systems – Important features - Communication Networks in Banking System - Automated Clearing Systems - Clearing House Inter-bank Payment System (CHIPS) - Electronic Fund Management - Electronic Clearing System (ECS) - ECS – Important aspects/ features - Real Time Gross Settlement (RTGS) - National Electronic Funds Transfer (NEFT) - Indian Financial System Code (IFSC) - Automated Teller Machines (ATMs) - Internet Banking – Online Payment Gateways-UPI - Computerization of Clearing of Cheques 283 Cheque Truncation System (CTS) - Internet and Supply Chain Management - International Payment Systems.	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
Text Book Reference 1. "Modern Banking" by Shelagh Heffernan 2. "Banking: A Very Short Introduction" by John Goddard and John O. S. Wilson 3. "Financial Markets and Institutions" by Frederic S. Mishkin and Stanley G. Eakins 4. "Banking and Financial Markets: A Risk Management Perspective" by Gérard Caprio 6. "Principles of Banking" by G. Jay Francis and Benton G				
Suggested Readings 1. "Financial Innovation and the Future of Banking" by James A. Hanson 2. "Banking in the Age of Information Technology" by Nicholas Economides				
Web Resources 7. https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/tech-forward/why-most-digital-banking-transformations-fail-and-how-to-flip-the-odds 8. https://www.mckinsey.com/industries/financial-services/how-we-help-clients/panorama/overview				

Course Outcomes (COs) and Cognitive Level Mapping

Cos	CO Description	Cognitive Level
CO 1	Understand the regulatory and compliance environment in banking, including key regulations such as Basel norms, anti-money laundering (AML) standards, and Know Your Customer (KYC) requirements	K1, K2
CO 2	Explain various banking products and services, including retail banking, corporate banking, and investment banking, along with innovative digital banking solutions.	K3, K4
CO 3	Apply customer relationship management techniques to enhance customer service, manage client portfolios, and drive business growth within the banking sector.	K5, K6

Course Code	
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Course Title	Audit & Assurance
Credits	04
Hours/Week	05
Category	Major Skills -MS
Semester	VI
Regulation	2024
Course Overview 16. Discover the nature and basics of auditing, including its evolution, objectives, and key concepts. 17. Comprehend the intricacies of company audits, covering auditor appointments, duties, and report requirements. 18. Familiarize about vouching techniques, including examination of vouchers and procedures for different types of transactions. 19. Analyze the verification and valuation of assets and liabilities, including principles and challenges. 20. Familiarize yourself with audit assurance through Accounting Standards, Standards on Auditing, and guidance notes.	
Course Objectives 11. To understand the historical evolution and fundamental concepts of auditing, emphasizing the importance of audit planning and program development. 12. To compose procedures related to auditor appointments, qualifications, and reporting intricacies within company audits, distinguishing between audit and investigation. 13. To develop skills in vouching, including examination of various vouchers and transactions, to enhance auditing capabilities. 14. To acquire expertise in verifying and valuing assets and liabilities, identifying window dressing practices, and understanding the auditor's crucial role in verification and valuation processes.	
Prerequisites	Basic knowledge of accounting is essential.

SYLLABUS

S.No	Content	Hrs	COs	Cognitive Level
I	Evolution, basic concepts and meaning of auditing, objectives, and classifications – Audit Planning, meaning – Audit programme, meaning, objectives, and contents - Audit engagement, audit files, audit notebook, audit working papers - Internal control, Internal check, and Internal audit.	15	CO 1 CO 2 CO 3	K1, K2, K3, K4, K5, K6
II	Auditor's appointment, qualification, disqualification, removal and remuneration, rights and duties, independence of auditors. Audit - Content of Audit Report, statutory report, and its types, audit certificate - Distinction between audit and investigation, branch audit, and joint audit.	15	CO 1 CO 2 CO 3	K1, K2, K3, K4, K5, K6

III	Meaning and objects of vouching, kinds, and requisites and examination of vouchers, vouching procedures, cut-off tests of arrangements -Vouching of cash transactions – teaming and lading, vouching of cash receipts, teaming and lading and vouching of cash payments and capital expenditure - Vouching of trading transactions – purchases, sale of goods, hire- purchase, bills receivable and payable books, purchase and sales ledger and journal proper - Vouching of the impersonal ledger – unpaid expenditure, unearned income, contingent liabilities, the distinction between capital and revenue expenditure.	15	CO 1 CO 2 CO 3	K1, K2, K3,K4, K5, K6
IV	Meaning of verification and valuation of assets - the differences between verification and valuation, the importance of verification and valuation, general principles of verification and valuation of assets and liabilities, and window dressing and auditor's position in verification and valuation -Verification and valuation - Intangible assets, fixed assets, audit of depreciation, investments, current assets, fictitious and contingent assets - Verification and valuation of liabilities – long term liabilities, current liabilities, and contingent liabilities	18	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
V	Accounting Standards (AS 1, 2, 3, 4, 5, 7, 9, 10, 13, 14, 18, 20, 21, 29.) Standard on Auditing (SA 500, 501, 505, 510, 520, 530, 550, 560, 570, 580, 610, 700, 701, 705, 706, and 710) - Guidance Notes relating to financial statement items.	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6

Text Books

8. Principles and Practice of Auditing by Dinkar Pagar, Sultan Chand & Sons, New Delhi.
9. Kamal Gupta, Contemporary Auditing, The Mc Graw-Hill Publishing Co. Ltd
10. Tandon B.N., Handbook of Practical Auditing, Sultan Chand, New Delhi.
11. Auditing and Assurance by Varsha Ainapure and Mukund Ainapure, PHI Learning Private Ltd, Delhi, 2009

Suggested Readings

5. Pankaj Garg, Auditing & Assurance, Taxmann Publications Pvt Ltd. New Delhi.
6. CA G. Sekar, Advanced Auditing, Assurance & Professional Ethics, Pathuka publications.
7. Bhattacharya, A., & Mukherjee, A. (2019). Auditing: Principles and Practices. New Delhi, India: Oxford University Press.
8. Kamal, S. (2020). Practical Auditing in India. Mumbai, India: Taxmann Publications.
9. ICAI study material on Auditing and Assurance, Paper 6.
10. Singhania, V., & Singhania, A. (2019). Auditing Standards and Practice Manual. Kolkata, India: Commercial Law Publishers (India) Pvt. Ltd.

Web Resources

9. https://www.icai.org/post.html?post_id=17768
10. https://www.icai.org/post.html?post_id=17757
11. <https://www.icai.org/post/icai-publications-auditing-assurance-standards-board>
12. https://www.icai.org/post.html?post_id=17833
13. <https://www.incometax.gov.in/iec/foportal/>

Course Outcomes (COs) and Cognitive Level Mapping

Cos	CO Description	Cognitive Level
CO 1	Understand the foundational concepts, evolution, objectives, and classifications of auditing, as well as the application of general principles in verification and valuation processes.	K1, K2
CO 2	Analyze and evaluate the appointment, qualification, removal, rights, and duties of auditors, along with the content of audit reports, and also differentiate between audit and investigation processes, including branch audit and joint audit procedures.	K3, K4
CO 3	Demonstrate proficiency in vouching techniques and critical assessment of expenditure distinctions during auditing processes.	K5, K6

Course Code	
Course Title	PORTFOLIO MANAGEMENT
Credits	4
Hours/Week	5
Category	Major Skills (MS) – Theory
Semester	V
Regulation	2024
Course Overview 1. Introduces portfolio management, covering key concepts, objectives, securities, risk, return, and the role of portfolio managers. 2. Explores the time value of money, including PVIF, FVIF, and annuity calculations. 3. Examines portfolio planning, selection, evaluation, and revision, along with related theories. 4. Analyzes risk and return using mean-variance analysis, Beta measures, portfolio diversification, and valuation of bonds and equities. 5. Covers wealth management, derivatives, SEBI regulations, and fundamental and technical analysis, including price movements, chart patterns, and trading indicators.	
Course Objectives 1. Grasp basic portfolio concepts, objectives, and the role of portfolio managers. 2. Calculate and apply PVIF, FVIF, and annuity factors. 3. Plan, select, and revise portfolios using relevant theories. 4. Assess risk and return through mean-variance analysis and Beta measures. 5. Apply analysis methods, understand derivatives, and SEBI regulations.	
Prerequisites	Basic knowledge of Portfolio Management

SYLLABUS

S.No	Content	Hrs	COs	Cognitive Level
I	Portfolio - Meaning- Objectives- Terms relating to Portfolio - Securities - Risk - Return - Introduction to Portfolio Management - Role of Portfolio Managers.	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
II	Time value – Computation of Present Value Interest Factor (PVIF), Future Value Interest Factor (FVIF), Present Value Interest Factor at an Annuity (PVIF A) - Future Value Interest Factor at an Annuity (FVIF A) Simple Problems relating to it.	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
III	Planning - Selection - Evaluation - Revision - Various steps involved in Portfolio Development - Theories relating to Portfolio Analysis.	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
IV	Interpretation of Risk & Return - Mean - Variance Analysis - B (Beta) Measures. Portfolio Diversification - Bond Valuation-Equity Valuation based on Dividend- Equity Valuation based On Earnings	18	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6
V	Wealth Management & Wealth Maximization - Introduction to Derivatives – Futures Options - Swaps - SEBI Regulations relating to Portfolio Operations - Approaches to Fundamental Analysis – Introduction to Technical Analysis – Price Movement Analysis – Chart Patterns & Styles - Trading Indicators – Market Conditions	15	CO1 CO2 CO3	K1, K2, K3, K4, K5, K6

Text Books

1. Security Analysis and Portfolio Management by Punithavathi Pandian.
2. Portfolio Management: Theory and Practice by M. Ranganatham and R. Madhumathi.
3. Investment Management by V.K. Bhalla.

Suggested Readings

1. Francis - Management of Investments, McGraw Hill.
2. GURUSAMY S, Security Analysis and Portfolio Management, Vijay Nicole Imprints, Chennai.
3. Fisher & Jordan - Security Analysis & Portfolio Management, prentice Hall.

Web Resources

1. www.portfoliomanagement.in
2. www.sebi.gov.in
3. www.moneycontrol.com
4. www.pms.sharekhan.com

Course Outcomes (COs) and Cognitive Level Mapping

Cos	CO Description	Cognitive Level
CO 1	Develop skills to analyze, interpret, and present data to guide strategic investment decisions in portfolio management, impacting areas such as asset allocation and risk assessment.	K1, K2
CO 2	Gain practical experience in constructing and applying predictive models, including regression and machine learning techniques, to forecast market trends and enhance portfolio performance.	K3, K4
CO 3	Demonstrate the ability to use advanced analytical techniques and tools to solve complex portfolio management problems, optimizing investment strategies and enhancing overall portfolio performance.	K5, K6

SCHEME OF EXAMINATIONS

PART- I

GENERAL LANGUAGE (GL) - (TAMIL/HINDI/SANSCRIT/FRENCH)

Language departments shall evolve a common template for Continuous Internal Assessment (CIA) and Semester Examinations of General Language (GL) courses following the guidelines below.

- GL shall focus on learning levels K1, K2, K3, and K4.
- Each Course descriptor (Syllabus) shall have a total number of 3 Course Outcomes (COs).

• Course Outcomes	Learning level (s)
CO1	K1, K2
CO2	K3
CO3	K4

CIA and semester Question papers shall have only 3 sections (A, B, and C).

Section	COs	Learning level(s)	Weightage
A	CO1	K1, K2	20%
B	CO2	K3	40%
C	CO3	K4	40%

CIA (INTERNAL): Theory / Practical CIA will be conducted for 100 marks.

ERP Configuration:

TEST	CONDUCTED	CONVERTED	COMPONENTS (3a& 3b)	TOTAL MARKS
CIA I	50	30	20	50
CIA II	50	30	20	50
			TOTAL	100

END SEMESTER (EXTERNAL):

- ❖ Theory / Practical semester Examination will be conducted for 3 Hours for 100 marks.
- ❖ The maximum number of questions in CIA and semester question papers shall be 11 and 22 respectively.
- ❖ Questions under Sections B and C shall have a maximum of 2 sub-divisions only.

Section	COs	Learning level(s)	CIA	Semester	Weightage
A	CO1	K1, K2	5 x 2 =10 Answer ALL	10 x 2 =20 Answer ALL	20%
B	CO2	K3	2 x 10 =20	4 x 10 =40	40%

			(2 out of 4)	(4 out of 8)	
C	CO3	K4	1 x 20 =20 (1 out of 2)	2 x 20 =40 (2 out of 4)	40%

The minimum pass mark for undergraduate courses is 40 out of 100.

PART- II

GENERAL ENGLISH (GE)

English department shall evolve a common template for Continuous Internal Assessment (CIA) and Semester Examinations of General English (GE) courses following the guidelines below.

- ❖ GE shall focus on learning levels K1, K2, K3, K4, K5 and K6.
- ❖ Each Course descriptor (Syllabus) shall have a total number of 3 Course Outcomes (COs).
- ❖ CO-Learning mapping shall be as follows and each course outcome statement shall be written using corresponding Bloom's action verbs.

Course Outcomes	Learning level (s)
CO1	K1, K2
CO2	K3, K4
CO3	K5, K6

CIA and semester Question papers shall have only 3 sections (A, B, and C).

Section	COs	Learning level(s)	Weightage
A	CO1	K1, K2	20%
B	CO2	K3, K4	40%
C	CO3	K5, K6	40%

CIA (INTERNAL): Theory / Practical CIA will be conducted for 100 marks.

ERP Configuration:

TEST	CONDUCTED	CONVERTED	COMPONENTS (3A& 3B)	TOTAL MARKS
CIA I	50	30	20	50
CIA II	50	30	20	50
			TOTAL	100

END SEMESTER (EXTERNAL):

- ❖ Theory / Practical semester Examination will be conducted for 3 Hours for 100 marks.
- ❖ The maximum number of questions in CIA and semester question papers shall be 11 and 22 respectively.
- ❖ Questions under Sections B and C shall have a maximum of 2 sub-divisions only.

Section	COs	Learning level(s)	CIA	Semester	Weightage
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A	CO1	K1, K2	5 x 2 =10 Answer ALL	10 x 2 =20 Answer ALL	20%
B	CO2	K3, K4	2 x 10 =20 (2 out of 4)	4 x 10 =40 (4 out of 8)	40%
C	CO3	K5, K6	1 x 20 =20 (1 out of 2)	2 x 20 =40 (2 out of 4)	40%

PART- III

(Major Core (MC), Allied Required (AR), Allied Optional (AO), Major Elective (ME) and Major Skill)

- ❖ MC, AR, AO, ME, and MS shall focus on all learning levels (K1-K6).
- ❖ Each Course descriptor (Syllabus) shall have a total number of 3 Course Outcomes (COs).
- ❖ CO-Learning mapping shall be as follows and each course outcome statement shall be written using corresponding Bloom's action verbs.

Course Outcomes	Learning level (s)
CO1	K1, K2
CO2	K3, K4
CO3	K5, K6

CIA and semester Question papers shall have only 3 sections (A, B, and C).

Section	Cos	Learning level(s)	Weightage
A	CO1	K1, K2	20%
B	CO2	K3, K4	40%
C	CO3	K5, K6	40%

CIA (INTERNAL): Theory / Practical CIA will be conducted for 100 marks.

ERP Configuration:

TEST	CONDUCTED	CONVERTED	COMPONENTS (3A& 3B)	TOTAL MARKS
CIA I	50	30	20	50
CIA II	50	30	20	50
			TOTAL	100

END SEMESTER (EXTERNAL):

- ❖ Theory / Practical semester Examination will be conducted for 3 Hours for 100 marks.
- ❖ The maximum number of questions in CIA and semester question papers shall be 11 and 22 respectively.
- ❖ Questions under Sections B and C shall have a maximum of 2 sub-divisions only.

Section	COs	Learning level(s)	CIA	Semester	Weightage
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A	CO1	K1, K2	5 x 2 =10 Answer ALL	10 x 2 =20 Answer ALL	20%
B	CO2	K3, K4	2 x 10 =20 (2 out of 4)	4 x 10 =40 (4 out of 8)	40%
C	CO3	K5, K6	1 x 20 =20 (1 out of 2)	2 x 20 =40 (2 out of 4)	40%

PART-IV

(Purely Internal Papers)

- ❖ NME shall focus on learning levels K1, K2, K3 and K4.
- ❖ Each Course descriptor shall have a total number of 3 Course Outcomes (COs).
- ❖ CO-Learning mapping shall be as follows and each course outcome statement shall be written using corresponding Bloom's action verbs.

Course Outcomes	Learning level (s)
CO1	K1, K2
CO2	K3
CO3	K4

CIA and semester Question papers shall have only 3 sections (A, B, and C).

Section	COs	Learning level(s)	Weightage
A	CO1	K1, K2	20%
B	CO2	K3	40%
C	CO3	K4	40%

CIA (INTERNAL): Theory / Practical CIA will be conducted for 100 marks.

ERP Configuration:

TEST	CONDUCTED	CONVERTED	COMPONENTS (3A& 3B)	TOTAL MARKS
CIA I	50	30	20	50
CIA II	50	30	20	50
			TOTAL	100

- Questions under Sections B and C shall have a maximum of 2 sub-divisions only.

Section	COs	Learning level(s)	CIA	Weightage
A	CO1	K1, K2	5 x 2 =10 Answer ALL	20%
B	CO2	K3	2 x 10 =20 (2 out of 4)	40%
C	CO3	K4	1 x 20 =20 (1 out of 2)	40%

- There is no semester examination for CD (NME) courses.

INSTRUCTIONS RELATED TO THE SKILL ENHANCEMENT COURSE TO BE OFFERED IN 5TH SEMESTER

- ❖ Skill Enhancement course (SE) shall be offered for 4 hours (4 credits) in the 5th semester.
- ❖ It is a purely internal paper and it contains 2 components/courses,
- ❖ Research Methodology (RM) is to be offered for 2 hours (2 credits). This course will have only formative assessments (FA1, FA2, C3A and C3B) and no semester examinations. It will be evaluated for 100 marks and converted to 50 marks.
- ❖ Seminar & Presentation (SP) is to be offered for 2 hours (2 credits). This course will be evaluated for 50 marks.
- ❖ The total marks to be evaluated for the course will be 50 +50 = 100 marks
- ❖ Instructions related to the Major Skill course to be offered in the 6th Semester
- ❖ Major Skill course (MS) shall be offered for 10 hours (10 credits) in the 6th semester.
- ❖ This course will have 2 components: inside and outside the class hours (Evaluated for 50 marks each).
- ❖ Inside class hours: It will have 2 courses (with 8 credits each) to be offered under this category (Two theory courses or one theory and one laboratory course).
- ❖ Outside class hours:
- ❖ Project (PJ) shall be offered under the MS course for 2 credits outside the class hours which shall be a case study/survey/fieldwork / special internship based on skills acquired / group or mini project with a maximum of 5 students/start-up or innovative ideas/model presentation / immersive learning etc.
- ❖ It will be evaluated for 50 marks with a minimum of 5 fortnight reports.

(INTERNSHIP) SEMESTER II & VI

SUB.CODE	SUBJECT	MAX. MARKS				TOTAL
	INTERNSHIP	Participation / Attendance	Performance & Skills acquired	Internship Report	Viva-Voce Examination	100
		25	25	25	25	

SCHEME OF EXAMINATIONS –NON CGBA COURSES

Value-Added Courses

SUB.CODE	SUBJECT	Max. Marks		
		CIA	CIA	Total Marks
	Value-Added Courses	50	50	100

(Foundation Course - SEMESTER I, II, III & IV)

SUB.CODE	SUBJECT	Max. Marks		
		CA I	CA II	Total Marks
	Foundation Courses (Fc)	50	50	100

(Self-Study Paper)

SUB.CODE	SUBJECT	Max. Marks		
		CIA I	CIA II	Total Marks
	Self-Study Paper	50	50	100

(Club Activity - CC - SEMESTER I & II))

SUB.CODE	SUBJECT	Max. Marks		
		Sem I	Sem II	Total Hours
	Club Activity (CC)	30	30	60

(Outreach - OR - SEMESTER II & III)

SUB.CODE	SUBJECT	Max. Marks		
		Sem III	Sem IV	Total Hours
	Outreach (OR)	45	45	90

CIA - MODEL QUESTION PAPER

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI 600 034
DEPARTMENT OF B.COM (COMPUTER APPLICATIONS)
CONTINUOUS INTERNAL ASSESSMENT TEST
UCC 4502 – PRINCIPLES OF MANAGEMENT (MC)

Class: II B.COM (CA)

Date:

Time :

Max. Marks: 50

SECTION A	
Answer ALL the questions (K1, K2, CO1) (6x2=12)	
1.	Briefly explain the carrot and stick approach.
2.	Diagrammatically present the elements of the communication process.
3.	Define Leadership.
4.	State any two merits of Organising.
5.	Mention any two problems in the Control Process.
6.	Recall the term Supervision.
SECTION B	
Answer any ONE of the following in 100 words (K3, CO2) (1 x 7 = 7)	
7.	Examine the barriers to communication.
8.	Differentiate between Centralization and Decentralization.
SECTION C	
Answer any ONE of the following in 100 words (K4, CO3) (1 x 7 = 7)	
9.	Examine the different styles of Leadership with examples.
10.	Define controlling. Elaborate the control process.
SECTION D	
Answer any ONE of the following in 150 words (K5, CO4) (1 x 12 = 12)	
11.	a. Recognition is a strong motivator. Justify. b. What are the other non-pecuniary incentives?

12.	Explain the Steps in the process of Organising.
SECTION E	
Answer any ONE of the following in 150 words (K6, CO4) (1 x 12 = 12)	
13.	Explain Maslow's Need Hierarchy Theory.
14.	Define coordination. Elucidate the types of Coordination.



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034
U.G. DEGREE EXAMINATION

NOVEMBER 2024

UCC1MC01 FINANCIAL ACCOUNTING (MC)

100 Marks

SECTION A - K1 & K2 (CO1)							
Q. No	Lev els	Answer ALL the Questions	(10 x 2 = 20)				
1	K1	State the rules for debiting and Crediting.					
2		Write a short note on money measurement concept.					
3		Define Depreciation.					
4		State the term ‘Salvaged’					
5		Write a note on ‘Loss of Profits’ Insurance.					
6	K2	P and Q are Partners sharing profit in the ratio of 3:2. They admit R as a partner for 1/5 th share in future profit. Calculate the new ratio and sacrificing ratio.					
7		Describe the term Stock Reserves.					
8		A and B are partners in a business sharing profit in the ratio of 5:3. They decide to admit C into the firm giving him 1/6 th share. Calculate new profit-sharing ratio.					
9		Identify the Modes of Dissolution.					
10		Classify the methods of Depreciation.					
SECTION B – K3 & K4 (CO2)							
		Answer ALL the Questions	(4 x 10 = 40)				
11	K3	A Machinery purchased on 1 st July 1983 at a cost of Rs 14,000 and Rs 1,000 was spent on its installation. The depreciation is written off at 10% on the original cost every year. The books are closed on 31 st December each year. The machine was sold for Rs. 9,500 on 31 st March 1986. Show the Machinery Account for all the years.					
12		[OR] The provision for Bad & Doubtful debts shows a balance of Rs 1,600 on 1 st January 1987. The Bad debts during the year 1987 amount to Rs 600. The Sundry Debtors on 31 st December 1987 are as Rs 16,000. Create a provision of 5% for bad and Doubtful Debts. Prepare Ledger A/c, for Bad debts, and provision for bad and doubtful debts.					
13		Explain the accounting concepts and conventions.					
14		[OR] Journalise the following transactions in Balan’s books, Prepare Leder A/c.					
		<table><tr><td>1985</td><td></td></tr><tr><td>Jan 1</td><td>Balan started business by investing cash Rs.50,000</td></tr></table>	1985		Jan 1	Balan started business by investing cash Rs.50,000	
1985							
Jan 1	Balan started business by investing cash Rs.50,000						

			He bought goods of Rs 4,000 and furniture of Rs 500.
		2	Purchased building for Rs 10,000
		3	Purchased goods for cash Rs 3,000
		4	Purchased goods on credit Rs 2,500
		5	Paid Cartage Rs 20.
15		Prepare Trial Balance from the following	
		Rs	Rs
		Capital	9,000
		Rent outstanding	1,000
		Plant and Machinery	12,000
		Opening stock	2,000
		Purchases	8,000
		Sales Returns	4,000
		Sales	12,000
		Investments	14,000
		Sundry Creditors	8,000
		Debtors	12,000
		Bank Loan	22,000
</			

20

K5

2. Purchased stationary for cash Rs 500

3. Purchased furniture for cash Rs 3,000

4. Sold goods for cash Rs 8,000

5. Sold goods to Raj for cash Rs 3,000

6. Sold goods to Jane 2,000

7. Paid Rent to Krishnan the landlord Rs 800

8. Paid Salary of Rs 6,000

9. Paid to Ravi, the manager his salary of Rs 400

10. Paid Freight on goods purchased Rs 500

11. Paid wages to erect a machine Rs 2,000

12. Received Rs 8,000 from Kamal as loan at 5% Interest

Prepare Ledger Account for Cash A/c, Purchases A/c and Sales A/c

[OR]

A and B are partners sharing profits in the ratio of 3:1. Their Balance sheet stood as under on 31.3.2004.

Liabilities	Rs	Assets	Rs
Salary due	5,000	Stock	10,000
Creditors	40,000	Prepaid Insurance	1,000
Capital A 30,000		Debtors 8,000	
B 20,000	50,000	Less; provision 500	7,500
		Cash	18,500
		Machinery	22,000
		Buildings	30,000
		Furniture	6,000
	95,000		95,000

C is admitted as a new Partner introducing a capital of Rs 20,000 for his 1/4th share in future profits.

1. Stock be depreciated by 5%

2. Furniture be depreciated by 10%

3. Building be revalued at Rs 45,000

4. The provision for doubtful debts should be increased to Rs 1,000. Prepare revaluation A/c and Balance sheet after admission.

21

K6

From the following information, prepare departmental trading and profit and loss account in a columnar form of the three department's of Sharma dry cleaners ltd.

	Dry cleaning Rs	Darning Rs	Dyeing Rs
Stock 1.1.2021	4,00,000	3,40,000	9,40,000
Stock 31.12.2021	3,30,000	4,38,000	8,17,000

Purchases	19,59,000	6,97,000	13,73,000
Sales	40,00,000	20,00,000	40,00,000
Wages	7,28,000	3,00,000	2,46,000

Goods were transferred from one department to another at cost price as follows

Darning to dry cleaning Rs 2,400 and to dyeing Rs 40,200

Dyeing to dry cleaning Rs 25,800 and to darning Rs 18,000

Dry cleaning to darning Rs 3,000 and to dyeing Rs 24,000

Apportion equally

stationery Rs 5,418,

Postage Rs 4,050,

General expenses Rs 2,37,618,

Insurance Rs, 10,080,

Depreciation Rs 32,598

Rent and taxes Rs 1,80,000 is to be split in proportion to space occupied

Dry cleaning 4, dyeing 2, darning 2 and other space 2

[OR]

From the following Trial balance extracted from the books of Kamalanatha prepare Trading and profit and loss A/c and Balance sheet for the year ended

Debit balances	Rs	Credit Balances	Rs
Cash at Bank	2,610	Creditors	4,700
Book debts	11, 070	Discounts	150
Salaries	4,950	Creditors for expenses	400
Carriage inwards	1450	Return outwards	2,520
Carriage outwards	1590	Sales	80,410
Bad debts	1310	Capital	40,000
Office expenses	5,100		
Purchases	67,350		
Return inwards	1,590		
Furniture and fixtures	1,500		
Stock	14,360		
Insurance	3,300		
Depreciation on property	1,200		
Freehold Property	10,800		
Total	1,28,180	Total	1,28,180

Adjustments:

1. Make provisions for doubtful debts at 5%
2. Calculate discount on creditors @ 2%
3. Office expenses include stationery purchased Rs 800
4. Carriage inwards includes carriage paid on purchase of furniture Rs 50.
5. Outstanding salaries Rs 150
6. Prepaid insurance Rs 300
7. Stock on hand Rs 10,700 (including stationery stock Rs 200)
