



K.M.G. COLLEGE OF ARTS AND SCIENCE

(AUTONOMOUS)

Approved by the Government of Tamil Nadu
Permanently Affiliated to Thiruvalluvar University, Vellore.
Recognized under Section 2(f) and 12(B) of the UGC Act 1956
Accredited by NAAC (2nd Cycle) with (CGPA of 3.24/4) 'A' Grade

P.G. DEPARTMENT OF COMMERCE (CA)

M.Com – COMPUTER APPLICATIONS

SYLLABUS

(CHOICE BASED CREDIT SYSTEM)

Under

LEARNING OUTCOMES-BASED CURRICULUM

FRAMEWORK (LOCF)

(Effective for the Batch of Students Admitted from 2024-2025)

ABOUT THE COLLEGE

The College was founded in the new millennium 2000 by the vision of late Shri.K.M.Govindarajan fondly known as ayah, with a mission to offer higher education in the fields of Arts and Science to the needy and the poor middle class students of this area and make them fully employable and economically self reliant. With a humble beginning of launching an elementary school named Thiruvalluvar Elementary School in the year 1952, ayah groomed it into a Higher Secondary School and later into a college. Education was his soul & breath. The college has grown into a full fledged educational hub offering 12 under graduate programmes, 8 post graduate programmes, 5 M.Phil research programmes and 4 Ph.D programmes. The college has been accredited with A grade by NAAC in 2nd cycle and recognized under section 2(f) & 12(B) of the UGC act 1956. The College is permanently affiliated to Thiruvalluvar University. The College is an associate member of ICT Academy and registered member of NPTEL and Spoken Tutorials of IIT Bombay. The college is also a member of INFLIBNET and NDL.

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VISION OF THE COLLEGE

Empower young men and women by educating them in the pursuit of excellence, character building and responsible citizen.

MISSION OF THE COLLEGE

Offer higher education in the fields of Arts, Science & Management to the needy and make them fully self-dependent.

QUALITY POLICY OF THE COLLEGE

KMG Students achieve the best learning results and personal growth with modern education that equip them for working life and a changing society to become deserving citizens.

S. No	Courses	Establishment year
1	B.Com (Computer Applications)	2009
2	M.Com – (Computer Applications)	2017

VISION OF THE DEPARTMENT

To impart holistic and quality education in the field of Commerce with Computer Applications and develop a broad knowledge base in core managerial and computer skill with professional excellence and experience.

MISSION OF THE DEPARTMENT

- To provide in-depth knowledge in the course.
- To train and develop the students with the employable skills required for Commerce and IT sectors.
- To impart the ability to use the expertise in computing to meet the ever growing demands of the society.
- To provide technical education to the students through well-equipped Labs.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

- 1. Professional Excellence:** Graduates will demonstrate competency and excellence in their chosen fields of study, applying theoretical knowledge to practical situations effectively.
- 2. Character Development:** Graduates will exhibit strong moral and ethical character, upholding values of integrity, honesty, and respect for others in both personal and professional endeavors.
- 3. Leadership and Citizenship:** Graduates will emerge as responsible leaders and active citizens, contributing positively to their communities and society at large through their actions and initiatives.
- 4. Continuous Learning:** Graduates will engage in lifelong learning and professional development activities, adapting to evolving technologies, methodologies, and societal needs.
- 5. Self-Dependency and Entrepreneurship:** Graduates will possess the skills and mindset necessary to be self-reliant and entrepreneurial, capable of creating opportunities for themselves and others through innovation and initiative.
- 6. Effective Communication and Collaboration:** Graduates will demonstrate proficiency in communication skills, both verbal and written, and exhibit the ability to collaborate effectively with diverse teams and stakeholders.
- 7. Global Perspective:** Graduates will have a broad understanding of global issues and perspectives, demonstrating cultural sensitivity and adaptability in multicultural environments.

PROGRAM OUTCOMES (POs)

On successful completion of the M.Com CA programme, the students will be able to:

POs	Graduate Attributes	Statements
PO1	Problem Solving skill	Apply knowledge of Management theories and Human Resource Practices to solve business problems through research in Global Context.
PO2	Decision Making Skills	Foster analytical and critical thinking abilities for data based decision-making.
PO3	Ethical Value	Ability to incorporate quality, ethical and legal value – based perspectives to all organizational activities.
PO4	Communication Skill	Ability to develop communication, managerial and interpersonal skills.
PO5	Individual and Team Leadership skill	Capability to lead themselves and the team to achieve organizational goals and contribute significantly to society.
PO6	Employability Skill	Inculcate contemporary business practices to enhance employability skills in the competitive environment.
PO7	Entrepreneurial Skill	.Equip with skills and competencies to become an entrepreneur.
PO8	Contribution to Society	Succeed in career endeavors and contribute significantly to society.
PO 9	Multicultural competence	Possess knowledge of the values and beliefs of multiple cultures and a global perspective.
PO10	Moral and ethical awareness /reasoning	Ability to embrace moral/ethical values in conducting one's life.

PROGRAM SPECIFIC OUTCOMES (PSOs)

On successful completion of the B.Com CA, the students will be able to:

PSOs	Statements
PSO1	To prepare the students who will demonstrate respectful engagement with others' ideas, behaviors, beliefs and apply diverse frames of reference to decisions and actions.
PSO2	To create effective entrepreneurs by enhancing their critical thinking, problem solving, decision making and leadership skill that will facilitate startups and high potential organizations.
PSO3	To produce employable in IT and IT enabled sectors with ethical and innovative professionalism to sustain in the dynamic business world.

Correlation Rubrics:

High	Moderate	Low	No Correlation
3	2	1	-

Mapping of PSOs with POs:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
PSO1	3	3	3	3	3	3	3	3	2	3
PSO2	3	3	3	3	3	3	3	3	3	3
PSO3	3	3	3	3	3	3	3	3	3	3

K.M.G. COLLEGE OF ARTS AND SCIENCE**(AUTONOMOUS)****Subject and Credit System- M.Com (Computer Applications)****(Effective for the Batch of Students Admitted from 2024-2025)**

Semester	Part	Category	Course Code	Course Title	Ins.Hrs/ Week	Credit	Maximum Marks			
							Internal	External	Total	
SEMESTER - I	Part - I	Core-I	APCCP11	Business Finance	07	05	25	75	100	
		Core-II	APCCP12	Digital Marketing	07	05	25	75	100	
		Core-III	APCCP13	Banking and Insurance	06	04	25	75	100	
		Elective – I (Choose any One)	APECP14A	Introduction to Industry 4.0	05	03	25	75	100	
			APECP14B	Big Data Analytics						
		Elective – II (Choose any One)	APECP15A	Enterprise Resource Planning	05	03	25	75	100	
			APECP15B	Database Management System						
	Semester Total					30	20			
SEMESTER - II	Part - I	Core-IV	APCCP21	Strategic Cost Management	06	05	25	75	100	
		Core-V	APCCP22	Corporate Accounting	06	05	25	75	100	
		Core-VI	APCCP23	Setting up of business entities	06	04	25	75	100	
		Elective-III (Choose any One)	APECP24A	Data Mining and Data Interpretation	03	03	25	75	100	
			APECP24B	Technology in Banking						
		Elective-IV (Choose any One)	APECP25A	Financial Analytics (Practical)	03	03	25	75	100	
			APECP25B	Management Information System						
		SEC - I	APSCP26	Advertising and Media	04	02	25	75	100	
	Part - II	Compulsory	APHR20	Human Rights	02	02	25	75	100	
		Compulsory	APMOOC20	MOOC COURSE	-	02	-	100	100	
	Semester Total					30	26			

Semester	Part	Category	Course Code	Course Title	Ins.Hrs/ Week	Credit	Maximum Marks		
							Internal	External	Total
SEMESTER - III	Part - I	Core-VII	APCCP31	Taxation	6	5	25	75	100
		Core-VIII	APCCP32	Research Methodology	6	5	25	75	100
		Core-IX	APCPCP33	Computer Application in Business	6	5	25	75	100
		Core-X	APCCP34	International Business	6	4	25	75	100
		Elective-V (Choose any One)	APECP35A	Applied Data Analytics and Machine Learning	03	03	25	75	100
			APECP35B	Python R Programming					
		SEC - II	APSCP36	Stock Market Operations	03	02	25	75	100
		Compulsory	APICP37	Internship / industrial Activity (Credits)	-	2	100	-	100
	Semester Total				30	26			
SEMESTER - IV	Part - I	Core-XI	APCCP41	Corporate and Economic Laws	6	5	25	75	100
		Core-XII	APCCP42	Human Resource Analytics	6	5	25	75	100
		Project with Viva	APPCP43	Project with viva	10	7	25	75	100
		Elective VI (Choose any One)	APECP44A	VI A – Cyber and Data Security	4	3	25	75	100
			APECP44B	VI B – E-Commerce					
		SEC – III / Professional Competency Skill	APSCP45	Consumer Behaviour	4	2	25	75	100
	Part - II	Compulsory	APEA40	Extension Activity	-	1	100	-	100
	Semester Total				30	23			

**K.M.G. COLLEGE OF ARTS AND SCIENCE
(AUTONOMOUS)**

**Subject and Credit System- M.Com (Computer Applications)
(Effective for the Batch of Students Admitted from 2024-2025)**

Consolidated Semester wise and Component wise Credit distribution

Parts	Semester-I	Semester-II	Semester-III	Semester-IV	Total Credits
Part-I	20	22	26	22	90
Part-II	-	4	-	1	5
Total	20	26	26	23	95

*Part I and Part II components will be separately taken into account for CGPA calculation and classification for the post graduate programme and has to be completed during the duration of the programme as per the norms, to be eligible for obtaining the PG degree.

COURSE DESCRIPTORS

Title of the Course	Business Finance	Hours/Week	07
Course Code	APCCP11	Credits	05
Category	Core I	Year & Semester	I & I
Prerequisites	UG Commerce (Computer Applications)	Regulation	2024

Objectives of the course:

- To outline the fundamental concepts in finance
- To estimate and evaluate risk in investment proposals
- To evaluate leasing as a source of finance and determine the sources of startup financing
- To examine cash and inventory management techniques
- To appraise capital budgeting techniques for MNCs

UNITS	Contents	COs	Cognitive Levels
UNIT-I	Introduction to Business Finance and Time value of money Business Finance: Meaning, Objectives, Scope -Time Value of money: Meaning, Causes – Compounding – Discounting – Sinking Fund Deposit Factor – Capital Recovery Factor – Multiple Compounding– Effective rate of interest – Doubling period (Rule of 69 and Rule of 72) – Practical problems.	CO1	K1,K2,K3
UNIT-II	Risk Management Risk and Uncertainty: Meaning – Sources of Risk – Measures of Risk – Measurement of Return – General pattern of Risk and Return – Criteria for evaluating proposals to minimise Risk (Single Asset and Portfolio) – Methods of Risk Management–Hedging currency risk.	CO2	K1,K2,K3, K5
UNIT-III	Startup Financing and Leasing Startup Financing: Meaning, Sources, Modes (Bootstrapping, Angel investors, Venture capital fund) - Leasing: Meaning – Types of Lease Agreements – Advantages and Disadvantages of Leasing – Financial evaluation from the perspective of Lessor and Lessee.	CO3	K1,K2

UNIT-IV	Cash, Receivable and Inventory Management Cash Management: Meaning, Objectives and Importance – Cash Cycle – Minimum Operating Cash – Safety level of cash – Optimum cash balance – Receivable Management: Meaning – Credit policy – Controlling receivables: Debt collection period, Ageing schedule, Factoring – Evaluating investment in accounts receivable – Inventory Management: Meaning and Objectives – EOQ with price breaks – ABC Analysis.	CO4	K1,K2
UNIT-V	Multi National Capital Budgeting Multi National Capital Budgeting: Meaning, Steps involved, Complexities, Factors to be considered– International sources of finance – Techniques to evaluate multi-national capital expenditure proposals: Discounted Pay Back Period, NPV, Profitability Index, Net Profitability Index and Internal Rate of Return – Capital rationing -Techniques of Risk analysis in Capital Budgeting.	CO5	K1,K2,K3, K4,K5

THEORY – 60%, PROBLEMS – 40%**Recommended Text Books**

1. Maheshwari S.N., (2019), “Financial Management Principles and Practices”, 15th Edition, Sultan Chand & Sons, New Delhi.
2. Khan M.Y & Jain P.K., (2011), “Financial Management: Text, Problems and Cases”, 8th Edition, McGraw Hill Education, New Delhi.
3. Prasanna Chandra, (2019), “Financial Management, Theory and Practice”, 10th Edition, McGraw Hill Education, New Delhi.
4. Apte P.G, (2020), “International Financial Management” 8th Edition, Tata McGraw Hill, New Delhi.

Reference Books

1. Pandey I. M., (2021), “Financial Management”, 12th Edition, Pearson India Education Services Pvt. Ltd, Noida.
2. Kulkarni P. V. & Satyaprasad B. G., (2015), “Financial Management”, 14th Edition, Himalaya Publishing House Pvt Ltd, Mumbai.
3. Rustagi R. P., (2022), “Financial Management, Theory, Concept, Problems”, 6th Edition, Taxmann Publications Pvt. Ltd, New Delhi.
4. Arokiamary Geetha Rufus, Ramani N. & Others, (2017), “Financial Management”, 1st Edition, Himalaya Publishing House Pvt Ltd, Mumbai.

Website and e-learning source

1. <https://resource.cdn.icai.org/66674bos53808-cp8.pdf>
2. <https://resource.cdn.icai.org/66677bos53808-cp10u2.pdf>
3. <https://resource.cdn.icai.org/66592bos53773-cp4u5.pdf>
4. <https://resource.cdn.icai.org/65599bos52876parta-cp16.pdf>

Course Learning Outcomes (for Mapping with POs and PSOs)

On completion of the course the students should be able to

COs	CO Description	Cognitive Level
CO1	Explain important finance concepts	K1,K2,K3
CO2	Estimate risk and determine its impact on return.	K1,K2,K3,K5
CO3	Explore leasing and other sources of finance for startups	K1,K2
CO4	Summarize cash, receivable and inventory management techniques	K1,K2
CO5	Evaluate techniques of long term investment decision incorporating risk factor.	K1,K2,K3,K4,K5

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	3	3	2	3	2	3	2	3	2	3	2	2	2
CO2	3	3	3	3	2	3	3	2	2	3	3	3	3
CO3	3	3	3	3	3	3	3	3	2	3	3	3	3
CO4	3	3	3	2	3	3	2	2	2	3	3	3	3
CO5	3	3	3	3	2	3	3	2	2	3	3	3	3

COURSE DESCRIPTORS

Title of the Course	Digital Marketing	Hours/Week	07
Course Code	APCCP12	Credits	05
Category	Core II	Year & Semester	I & I
Prerequisites	UG Commerce (Computer Applications)	Regulation	2024

Objectives of the course:

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

UNITS	Contents	COs	Cognitive Levels
UNIT-I	Introduction to Digital Marketing Digital Marketing – Transition from traditional to digital marketing – Rise of internet – Growth of e-concepts – Growth of e-business to advanced e-commerce – Emergence of digital marketing as a tool – Digital marketing channels – Digital marketing applications, benefits and limitations – Factors for success of digital marketing – Emerging opportunities for digital marketing professionals.	CO1	K1,K2
UNIT-II	Online marketing mix Online marketing mix – E-product – E-promotion – E-price – E-place – Consumer segmentation – Targeting – Positioning – Consumers and online shopping issues – Website characteristics affecting online purchase decisions – Distribution and implication on online marketing mix decisions.	CO2	K1,K2,K3

UNIT-III	Digital media channels Digital media channels – Search engine marketing – ePR – Affiliate marketing – Interactive display advertising – Opt-in-email marketing and mobile text messaging, Invasive marketing – Campaign management using – Facebook, Twitter, Corporate Blogs – Advantages and disadvantages of digital media channels – Metaverse marketing.	CO3	K1,K2,K 3
UNIT-IV	Online consumer behavior Online consumer behavior – Cultural implications of key website characteristics – Dynamics of online consumer visit – Models of website visits – Web and consumer decision making process – Data base marketing – Electronic consumer relationship management – Goals – Process – Benefits – Role – Next generation CRM.	CO4	K1,K2,K 4
UNIT-V	Analytics and Gamification Digital Analytics – Concept – Measurement framework – Demystifying web data - Owned social metrics – Measurement metrics for Facebook, Twitter, YouTube, Slide Share, Pinterest, Instagram, Snapchat and LinkedIn – Earned social media metrics - Digital brand analysis – Meaning – Benefits – Components – Brand share dimensions – Brand audience dimensions – Market influence analytics – Consumer generated media and opinion leaders – Peer review – Word of mouth – Influence analytics – Mining consumer generated media – Gamification and game based marketing – Benefits – Consumer motivation for playing online games.	CO5	K1,K2,K 3

Recommended Text Books

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

Reference Books

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

Website and e-learning source

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

Course Learning Outcomes (for Mapping with POs and PSOs)

On completion of the course the students should be able to

COs	CO Description	Cognitive Level
CO1	Explain the dynamics of digital marketing	K1, K2
CO2	Examine online marketing mix	K1, K2, K3
CO3	Compare digital media channels	K1, K2, K3
CO4	Interpret online consumer behavior	K1, K2, K4
CO5	Analyse social media data.	K1, K2, K3

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	2	3	3	3	2	2	2	3	2	3	2	2	2
CO2	3	3	3	3	3	3	3	3	2	3	3	3	3
CO3	3	3	3	3	3	3	3	3	2	3	3	3	3
CO4	2	2	3	3	2	3	3	3	2	3	3	3	3
CO5	3	3	3	3	3	3	3	3	2	3	3	3	3

COURSE DESCRIPTORS

Title of the Course	Banking and Insurance	Hours/Week	06
Course Code	APCCP13	Credits	04
Category	Core III	Year & Semester	I & I
Prerequisites	UG Commerce (Computer Applications)	Regulation	2024

Objectives of the course:

- To understand the evolution of new era banking
- To explore the digital banking techniques
- To analyse the role of insurance sector
- To evaluate the mechanism of customer service in insurance and the relevant Regulations
- To analyse risk and its impact in banking and insurance industry

UNITS	Contents	COs	Cognitive Levels
UNIT-I	Introduction to Banking Banking: Brief History of Banking - Rapid Transformation in Banking: Customer Shift - Fintech Overview - Fintech Outlook - The Financial Disruptors - Digital Financial Revolution - New Era of Banking. Digital Banking – Electronic Payment Systems– Electronic Fund Transfer System – Electronic Credit and Debit Clearing – NEFT – RTGS – VSAT–SFMS–SWIFT.	CO1	K1,K2,K3
UNIT-II	Contemporary Developments in Banking Distributed Ledger Technology – Blockchain: Meaning - Structure of BlockChain - Types of Block Chain - Differences between DLT and Blockchain - Benefits of Blockchain and DLT - Unlocking the potential of Blockchain – Crypto currencies, Central Bank Digital Currency (CBDC) - Role of DLT in financial services - AI in Banking: Future of AI in Banking - Applications of AI in Banking - Importance of AI in banking - Banking reimagined with AI. Cloud banking - Meaning - Benefits in switching to Cloud Banking.	CO2	K1,K2,K3

UNIT-III	Indian Insurance Market History of Insurance in India – Definition and Functions of Insurance – Insurance Contract – Indian Insurance Market – Reforms in Insurance Sector – Insurance Organisation – Insurance organisation structure. Insurance Intermediaries: Insurance Broker – Insurance Agent - Surveyors and Loss Assessors - Third Party Administrators (Health Services) – Procedures - Code of Conduct.	CO3	K1,K2,K3
UNIT-IV	Customer Services in Insurance Customer Service in Insurance – Quality of Service - Role of Insurance Agents in Customer Service-Agent’s Communication and Customer Service –Ethical Behaviour in Insurance – Grievance Redressal System in Insurance Sector –Integrated Grievance Management System- Insurance Ombudsman - Insurance Regulatory and Development Authority of India Act (IRDA) – Regulations and Guidelines.	CO4	K1,K2,K3
UNIT-V	Risk Management Risk Management and Control in banking and insurance industries – Methods of Risk Management – Risk Management by Individuals and Corporations – Tools for Controlling Risk.	CO5	K1,K2

Recommended Text Books

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

Reference Books

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

Website and e-learning source

1. <https://corporatefinanceinstitute.com/resources/knowledge/finance/fintech-financial-technology>.
2. [https://mrcet.com/downloads/digital_notes/CSE/IV%20Year/CSE%20B.TECH%20IV%20YEAR%20II%20SEM%20BCT%20\(R18A0534\)%20NOTES%20Final%20PDF.pdf](https://mrcet.com/downloads/digital_notes/CSE/IV%20Year/CSE%20B.TECH%20IV%20YEAR%20II%20SEM%20BCT%20(R18A0534)%20NOTES%20Final%20PDF.pdf)
3. https://www.irdai.gov.in/ADMINCMS/cms/frmGeneral_Layout.aspx?page=PageNo108&flag=1

Note: Latest edition of the books may be used

Course Learning Outcomes (for Mapping with POs and PSOs)

On completion of the course the students should be able to

COs	CO Description	Cognitive Level
CO1	Relate the transformation in banking from traditional to new age	K1,K2,K3
CO2	Apply modern techniques of digital banking	K1,K2,K3
CO3	Evaluate the role of insurance sector	K1,K2,K3
CO4	Examine the regulatory mechanism	K1,K2,K3
CO5	Assess risk mitigation strategies	K1,K2

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	3	3	3	3	3	3	2	2	2	3	3	3	3
CO2	3	3	3	3	3	3	2	2	2	3	3	3	3
CO3	2	3	3	3	3	3	2	2	2	3	3	3	3
CO4	2	3	3	3	3	3	2	2	2	3	3	3	3
CO5	3	3	3	3	3	3	2	2	2	3	3	3	3

COURSE DESCRIPTORS

Title of the Course	Introduction to Industry 4.0	Hours/Week	05
Course Code	APECP14 A	Credits	03
Category	Elective IA	Year & Semester	I & I
Prerequisites	UG Commerce (Computer Applications)	Regulation	2024

Objectives of the course:

- To enable the students to comprehend the change from industry 1.0 to 4.0
- To gain knowledge on the challenges and future prospects of applying artificial
- Intelligence
 - To learn the applications of big data for industrial growth and development
 - To understand the applications of IoT in various sectors
 - To understand why education has to be aligned with industry 4.0

UNITS	Contents	COs	Cognitive Levels
UNIT-I	Introduction Industry: Meaning, Types - Industrial Revolution: Industrial Revolution 1.0 to 4.0: Meaning, Goals and Design Principles - Technologies of Industry 4.0 - Big Data – Artificial Intelligence (AI) – Industrial Internet of Things - Cyber Security – Cloud – Augmented Reality.	CO1	K1,K2,K3
UNIT-II	Artificial Intelligence Artificial Intelligence (AI): Need, History and Foundations -The AI - environment - Societal Influences of AI – Application Domains and Tools - Associated Technologies of AI - Future prospects of AI – Challenges of AI.	CO2	K1,K2,K3

UNIT-III	Big Data Evolution - Data Evolution - Data : Terminologies - Essential of Big Data in Industry 4.0 - Big Data Merits and Limitations - Big Data Components : Big Data Characteristics - Big Data Processing Frameworks - Big Data Tools - Big Data Applications - Big Data Domain Stack : Big Data in Data Science – Big Data in IoT - Big Data in Machine Learning - Big Data in Databases - Big Data Usecases: Big Data in Social Causes - Big Data for Industry - Big Data Roles - Learning Platforms; Internet of Things (IoT) : Introduction to IoT – Architecture of IoT Technologies for IoT - Developing IoT Applications - Applications of IoT - Security in IoT.	CO3	K1,K2,K3
UNIT-IV	Applications of IoT IoT in Manufacturing – Healthcare – Education – Aerospace and Defence – Agriculture – Transportation and Logistics – Impact of Industry 4.0 on Society: Impact on Business, Government, People - Tools for Artificial Intelligence - Big Data and Data Analytics - Virtual Reality - Augmented Reality –IoT - Robotics.	CO4	K1,K2,K3
UNIT-V	Industry 4.0 Education 4.0 – Curriculum 4.0 – Faculty 4.0 – Skills required for Future - Tools for Education – Artificial Intelligence Jobs in 2030 – Jobs 2030 - Framework for aligning Education with Industry 4.0.	CO5	K1,K2
Recommended Text Books 1. Seema Acharya J, Subhashini Chellappan, (2019) “Big Data and Analytics”, 2 nd Edition, Wiley Publication, New Delhi. 2. Russel S, Norvig P (2010), “Artificial Intelligence: A Modern approach”, 3rd Edition, Prentice Hall, New York. 3. Pethuru Raj and Anupama C. Raman, (2017), "The Internet of Things: Enabling Technologies, Platforms, and Use Cases", Auerbach Publications			
Reference Books 1. Judith Hurwitz, Alan Nugent, Fern Halper, Marcia Kaufman, “Big Data for Dummies”, John Wiley & Sons, Inc. 2. Nilsson (2000), Artificial Intelligence: A new synthesis, Nils J Harcourt Asia PTE Ltd.			

Website and e-learning source

1. https://sist.sathyabama.ac.in/sist_coursematerial/uploads/SEEA1403.pdf
2. https://library.oapen.org/bitstream/handle/20.500.12657/43836/external_content.pdf?sequence=1
3. https://www.vssut.ac.in/lecture_notes/lecture1428643004.pdf

Course Learning Outcomes (for Mapping with POs and PSOs)

On completion of the course the students should be able to

COs	CO Description	Cognitive Level
CO1	Discuss on the change from industry 1.0 to 4.0	K1,K2,K3
CO2	Discover the challenges and future prospects of applying artificial intelligence	K1,K2,K3
CO3	Apply big data for industrial growth and development	K1,K2,K3
CO4	Apply IoT in various sectors like Manufacturing, Healthcare, Education, Aerospace and Défense	K1,K2,K3
CO5	Appraise why education has to be aligned with industry 4.0	K1,K2

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	3	3	3	3	3	3	3	3	3	3	3	3	3
CO2	3	3	3	3	3	3	3	3	3	3	3	3	3
CO3	3	3	3	3	3	3	3	3	3	3	3	3	3
CO4	3	3	3	3	3	3	3	3	3	3	3	3	3
CO5	3	3	3	3	3	3	3	3	3	3	3	3	3

COURSE DESCRIPTORS

Title of the Course	BIG DATA ANALYTICS	Hours/Week	5
Course Code	APECP14B	Credits	3
Category	Elective IB	Year & Semester	I & I
Prerequisites	UG Commerce (Computer Applications)	Regulation	2024

Objectives of the course:

1. To understand the various aspects of data science and applying them in health care
2. To learn the applications of big data for industrial growth and development
3. To understand the characteristics of 5 V's
4. To know the big data problems
5. To understand the Hadoop

UNITS	Contents	COs	Cognitive Levels
UNIT-I	Introduction to Data Science Introduction to data science – Case Studies – Data Science in Biomedicine and Healthcare – Sequence Processing – Medical Image Analysis – Natural Language Processing – Network Modelling and Probabilistic Modelling.	CO1	K1,K2
UNIT-II	Big Data Big data: Meaning – Importance of Big Data – Example of Big Data – Source of Big Data - Machine - Generated Data - Advantages – Big Data generated by people – Organization of Generated Data - Integrating the data.	CO2	K1,K2,K3
UNIT-III	Characteristics of Big Data Characteristics of big data volume – Variety –Velocity – Characteristics of Big Data – 23 Veracity – Valence and Value – Getting value out of Big Data using 5-step process to structure your analysis.	CO3	K1,K2,K3

UNIT-IV	Data Science: Getting value out of Big Data Building a Big Data Strategy – Happening of Big Data science – Five Components of Data Science. Steps in Data Science: Acquiring Data, Preprocessing and Exploring Data – Analysing Data - Communicating results – Turning insights into action.	CO4	K1,K2,K4
UNIT-V	Big Data Systems and Hadoop Meaning of Distributed File System – Scalable Computing over the Internet – Programming Models for Big Data – Introduction to Hadoop systems – The Hadoop Distributed File System: A Storage System for Big Data – YARN: A Resource Manager for Hadoop – Map Reduce: Simple Programming for Big Results – When to Reconsider Hadoop? – Cloud Computing: An important Big Data enabler.	CO5	K1,K2,K3

Recommended Text Books

1. Peter Guerra and Kirk Borne (2016), "Ten Signs of Data Science Maturity", O'Reily Media Pvt Ltd, USA
2. Tom White (2012), "Hadoop: The Definitive Guide" Third Edition, O'Reily Media, USA.
3. SeemaAcharya (2015), SubhasiniChellappan, "Big Data Analytics", Wiley, USA

Reference Books

1. Howard Wen, Big Ethics for Big Data, O'Reilly Media, USA.
2. Michael Mineli, Michele Chambers, AmbigaDhiraj (2013), Big Data, Big Analytics: Emerging Business Intelligence and Analytic Trends for Today's Businesses, Wiley Publications, USA .
3. Judith S.Hurwitz, Alan Nugent, Fern Halper, Marcia Kaufman (2015), "Big Data for Dummies", John Wiley & Sons, Inc., USA.

Website and e-learning source

1. <https://www.coursera.org/learn/big-data-introduction/home/welcome>
2. <https://www.coursera.org/learn/bioconductor?action=enroll&authMode=login>

Course Learning Outcomes (for Mapping with POs and PSOs)

On completion of the course the students should be able to

COs	CO Description	Cognitive Level
CO1	Describe the Big Data landscape including examples of real world big data problems	K1,K2
CO2	Explain the advantages of Big Data.	K1,K2,K3
CO3	Explain the Vs of Big Data and its impacts of data collection, monitoring, storage, analysis and reporting	K1,K2,K3
CO4	Identify what are and what are not big data problems and be able to recast big data problems as data science questions	K1,K2,K4
CO5	Explain Hadoop technology	K1,K2,K3

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	3	3	3	3	3	3	2	2	2	3	2	3	3
CO2	3	3	3	3	3	3	2	2	2	3	3	3	3
CO3	3	3	3	3	3	3	2	2	2	3	3	3	3
CO4	3	3	3	3	3	3	2	2	2	3	3	3	3
CO5	3	3	3	3	3	3	2	2	2	3	3	3	3

COURSE DESCRIPTORS

Title of the Course	ENTERPRISE RESOURCE PLANNING	Hours/Week	5
Course Code	APECP15A	Credits	3
Category	Elective IIA	Year & Semester	I & I
Prerequisites	UG Commerce (Computer Applications)	Regulation	2024

Objectives of the course:

1. To learn the history and growth of ERP
2. To understand the risks involved while using ERP
3. To gain knowledge on the various ERP technologies
4. To learn the dynamics of ERP marketplace
5. To choose appropriate ERP solutions or packages

UNITS	Contents	COs	Cognitive Levels
UNIT-I	Enterprise an Overview Business Functions and Business Processes - Integrated Management Information - Business Modelling - Integrated Data Model. Business Processes: Major Business Processes. Introduction to ERP: Common ERP Myths - A Brief History of ERP - Reasons for the Growth of ERP Market - Advantages of ERP.	CO1	K1,K2
UNIT-II	Risk of ERP People Issues - Process Risks - Technological Risks - Implementation Issues-Operation and Maintenance Issues - Unique Risks of ERP Projects - Managing Risks on ERP Projects. Benefits of ERP: Information Integration - Reduction of Lead Time - On-Time Shipment - Reduction in Cycle Time - Improved Resource Utilization - Better Customer Satisfaction - Improved Supplier Performance - Increased Flexibility - Reduced Quality Costs - Better Analysis and Planning Capabilities - Improved Information Accuracy and Decision Making Capability - Use of Latest Technology.	CO2	K1,K2,K3

UNIT-III	ERP and Related Technologies Business Process Reengineering (BPR) - Business Intelligence (BI) - Business Analytics (BA) - Data Warehousing- Data Mining - On - Line Analytical Processing (OLAP) - Product Life Cycle Management (PLM) - Supply Chain Management (SCM) - Customer Relationship Management (CRM) - Geographic Information Systems (GIS) - Intranets and Extranets. Advanced Technology and ERP Security: Technological Advancements - Computer Crimes - ERP and Security - Computer Security - Crime and Security.	CO3	K1,K2,K4
UNIT-IV	ERP Market Place and Market Place Dynamics Market Overview - ERP Market Tiers. Market Place Dynamics - Industry - Wise ERP Market Share - ERP: The Indian Scenario. Business Modules of an ERP Package: Functional Modules of ERP Software: Integration of ERP, Supply Chain, and Customer Relationship Applications.	CO4	K1,K2,K3
UNIT-V	ERP Implementation Benefits of Implementing ERP - Implementation Challenges. ERP Implementation Life Cycle: Objectives of ERP Implementation - Different Phases of ERP Implementation Reasons for ERP Implementation Failure. ERP Package Selection: ERP Package Evaluation and Selection - The Selection Process - ERP Packages: Make or Buy.	CO5	K1,K2,K3

Recommended Text Books

Books for study:

1. Alexis Leon (2008), "Enterprise Resource Planning", 2nd edition, Tata McGraw-Hill, Noida.
2. Jagan Nathan Vaman (2008), "ERP in Practice", Tata McGraw-Hill, Noida.
3. MahadeoJaiswal and Ganesh Vanapalli (2009), "ERP", Macmillan India, Noida.

Reference Books

1. Sinha P. Magal and Jeffery Word (2012), "Essentials of Business Process and Information System", Wiley India, USA.
2. Summer (2008), "ERP", Pearson Education, Noida.
3. Vinod Kumar Grag and N.K. Venkitakrishnan (2006), "ERP- Concepts and Practice", Prentice Hall of India, New Delhi.

Website and e-learning source

1. https://mrcet.com/downloads/digital_notes/CSE/III%20Year/ERP%20Digital%20notes.pdf
2. https://mrcet.com/downloads/digital_notes/ME/III%20year/ERP%20Complete%20Digital%20notes.pdf
3. https://www.vssut.ac.in/lecture_notes/lecture1428643004.pdf

Course Learning Outcomes (for Mapping with POs and PSOs)

On completion of the course the students should be able to

COs	CO Description	Cognitive Level
CO1	Recall the history and growth of ERP	K1,K2
CO2	Appraise the risks involved while using ERP	K1,K2,K4
CO3	Select from among various ERP technologies	K1,K2,K3
CO4	Analyse the dynamics of ERP marketplace	K1,K2,K3
CO5	Distinguish and choose appropriate ERP solutions or packages	K1,K2,K3

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	3	3	3	3	2	3	3	2	2	3	3	3	3
CO2	3	3	3	3	2	3	3	2	2	3	3	3	3
CO3	3	3	3	3	3	3	3	2	2	3	3	3	3
CO4	3	3	3	3	3	3	3	2	2	3	3	3	3
CO5	3	3	3	3	3	3	3	2	2	3	3	3	3

COURSE DESCRIPTORS

Title of the Course	DATABASE MANAGEMENT SYSTEM	Hours/Week	5
Course Code	APECP15B	Credits	3
Category	Elective IIB	Year & Semester	I & I
Prerequisites	UG Commerce (Computer Applications)	Regulation	2024

Objectives of the course:

1. To introduce the basic concepts of Relational Database Management System and the working knowledge of Linux environment
2. To understand designing databases and queries in SQL
3. To learn RDBMS
4. To upskill the functions and operators
5. To understand the constraints, locks and MySQL

UNITS	Contents	COs	Cognitive Levels
UNIT-I	Introduction to Database Systems and Linux Introduction to File and Database systems Database System Structure - Data Models Introduction to Network Models: ER Model, Relational Model - Introduction to Linux Operating System - Properties of Linux - Desktop Environment - Linux basics commands - Working with Files - Text Editors - I/O Redirections - Pipes, Filters, and Wildcards - Changing Access Rights.	CO1	K1,K2
UNIT-II	SQL Definition and Normalization SQL – Data Definition - Queries in SQL - Updates - Views - Integrity and Security. Relational Database design – Functional dependences and Normalization for relational databases (up to BCNF) - Query Forms.	CO2	K1,K2

UNIT-III	Files and RDBMs Record Storage and Primary File Organization - Secondary Storage Devices – Operations on Files - Heap File - Sorted Files - Hashing Techniques - Index Structure for Files - Different Types of Indexes - B-Tree - B+Tree - Query Processing - Multimedia Databases - Basic Concepts and Applications - Indexing and Hashing - Text Databases - Overview of RDBMs - Advantages of RDBMs over DBMs – Introduction to Data Mining.	CO3	K1,K2,K3
UNIT-IV	Data Definition and Manipulation Language Data Definition Language - Data Manipulation Language - Transaction Control – Data Control Language Grant - Revoke Privilege Command - Set Operators - Joins- Kinds of Joins - Table Aliases - Sub queries - Multiple and Correlated Sub Queries - Functions - Single Row - Date, Character, Numeric, Conversion and Group Functions	CO4	K1,K2,K3
UNIT-V	Constraints and MYSQL Constraints - Domain, Equity, Referential Integrity Constraints Locks - Types of Locks, Table Partitions - Synonym - Introduction to PL/SQL - Introduction - MySQL as an RDBMS Tool - Data types and Commands.	CO5	K1,K2,K3

Recommended Text Books

1. Ramakrishnan Raghu and Gehrke Johannes, “Database Management Systems”, McGraw–Hill, USA.
2. Rajendra Prasad Mahapatra and GovindVerma, “Database Management System”, Khanna Publications, New Delhi.

Reference Books

1. Ramon A Mata-Toledo and Pauline K Cushman, “Database Management System”, Schaun’s Outlines, New York.
2. Abraham Silberschatz, Henry F Korth and S. Sudarshan, “Database System Concepts” McGraw–Hill, USA.

Website and e-learning source

1. <http://education-portal.com/academy/lesson/what-is-a-database-managementsystempurpose-and-function.html>.
2. http://www.comptechdoc.org/os/linux/usersguide/linux_ugbasics.html.
3. <http://www.dummies.com/how-to/content/common-linux-commands.html>.

Course Learning Outcomes (for Mapping with POs and PSOs)

On completion of the course the students should be able to

COs	CO Description	Cognitive Level
CO1	Identify models and schemas in DBMS and LINUX	K1,K2
CO2	Demonstrate Queries in SQL	K1,K2
CO3	Discuss handling files and databases	K1,K2,K3
CO4	Apply skills on functions and operators in RDBMS	K1,K2,K3
CO5	Apply constraints and locks in SQL	K1,K2,K3

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	2	2	3	3	3	3	1	1	2	2	2	3	2
CO2	2	2	3	3	3	3	1	1	2	2	2	3	2
CO3	2	2	3	3	3	3	1	1	2	2	2	3	2
CO4	2	2	3	3	3	3	1	1	2	2	2	3	2
CO5	2	2	3	3	3	3	1	1	2	2	2	3	2

COURSE DESCRIPTORS

Title of the Course	STRATEGIC COST MANAGEMENT	Hours/Week	06
Course Code	APCCP21	Credits	05
Category	Core-IV	Year & Semester	I & II
Prerequisites	UG Commerce	Regulation	2024

Objectives of the course:

- To analyse the aspects of strategic and quality control management
- To analyse and select cost control techniques
- To apply activity based costing for decision making
- To utilise transfer pricing methods in cost determination
- To apply cost management techniques in various sectors

UNITS	Contents	COs	Cognitive Levels
UNIT-I	UNIT I (18 hrs) Introduction to Strategic Cost Management Introduction to Strategic Cost Management (SCM) – Need for SCM – Differences between SCM and Traditional Cost Management - Value Chain Analysis: Meaning and Steps - Quality Cost Management: Meaning of Quality and Quality Management – Cost of Quality –Indian Cost Accounting Standard 21 on Quality Control – Introduction to Lean System – Benefits of Lean System – Kaizen Costing. – Theory only	CO1	K1 K2 K3 K4
UNIT-II	UNIT II (18 hrs) Cost Control and Reduction Cost Management Techniques: Cost Control: Meaning and Prerequisites - Cost Reduction: Meaning and Scope – Differences between Cost control and cost reduction - Pareto Analysis: Meaning, importance and applications – Theory only	CO1 CO2	K1 K2 K3 K4
UNIT-III	UNIT III (18 hrs) Decision Involving Alternative Choices – Pricing Decisions and Strategies – Relevant Cost Analysis - Target Costing - Product Life Cycle Costing – Asset Life Cycle Costing – Simple Problems.	CO3	K1, K2 K3 K4 K5
UNIT-IV	UNIT IV (18 hrs) Transfer Pricing Transfer Pricing: Meaning, Benefits, Methods: Pricing based on cost, Market price as transfer price, Negotiated pricing and Pricing based on opportunity costs – Practical Problems.	CO4	K1, K2 K3, K4 K5

UNIT-V	UNIT V (18 hrs) Activity Based Cost Management and Just in Time (JIT) Activity Based Cost Management: Concept, Purpose, Stages, Benefits, Relevance in Decision making and its Application in Budgeting - Just in Time - Introduction, Benefits, Use of JIT in Measuring the Performance – Practical problems.	CO5	K1, K2 K3, K4 K5
Note: Theory 40% & Problems 60% Recommended Text Books 1. Ravi M Kishore (2018), “Strategic Cost Management”, 5th Edition, Taxmann Publications Pvt. Ltd, New Delhi. 2. Bandgar P. K., (2017), “Strategic Cost Management”, 1st Edition, Himalaya Publishing House Pvt Ltd, Mumbai. 3. Sexena V. K., (2020), “Strategic Cost Management and Performance Evaluation”, 1st Edition, Sultan Chand & Sons, New Delhi.			
Reference Books John K Shank and Vijay Govindarajan (2008), Strategic Cost Management, Simon & Schuster; Latest edition, UK 2. Jawahar Lal, (2015), “Strategic Cost Management”, 1st Edition, Himalaya Publishing House Pvt Ltd, Mumbai.) 3. Arora M. N., (2021), “A Text Book of Cost and Management Accounting”, 11th Edition, Vikas Publishing House Pvt. Ltd., New Delhi.			
Website and e-learning source 1. https://www.accountingtools.com/articles/strategic-cost-management.html#:~:text=Strategic%20cost%20management%20is%20the,it%20or%20have%20no%20impact. 2. https://ca-final.in/wp-content/uploads/2018/09/Chapter-4-Cost-ManagementTechniques.pdf 3. https://resource.cdn.icai.org/66530bos53753-cp5.pdf			

Note: Latest edition of the books may be used

Course Learning Outcomes (for Mapping with POs and PSOs)

On completion of the course the students should be able to

COs	CO Description	Cognitive Level
CO1	Explain strategic cost management and Quality Control	K1, K2, K3, K4
CO2	Choose the appropriate technique for cost control	K1, K2, K3, K4
CO3	Choose different methods of decision making techniques	K1, K2, K3, K4, K5
CO4	Choose transfer pricing methods to solve problems	K1, K2, K3, K4, K5
CO5	Make use of activity based costing in practice	K1, K2, K3, K4, K5

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	3	2	-	-	-	-	-	2	-	2	3	2	1
CO2	3	2	-	-	-	-	-	2	-	2	3	2	1
CO3	3	2	-	3	2	2	2	2	-	2	3	2	1
CO4	3	2	-	2	2	-	-	2	-	2	3	3	1
CO5	3	2	1	-	-	-	-	2	-	-	3	2	1

COURSE DESCRIPTORS

Title of the Course	CORPORATE ACCOUNTING	Hours/Week	06
Course Code	APCCP22	Credits	05
Category	Core V	Year & Semester	I & II
Prerequisites	UG Commerce (Computer Applications)	Regulation	2024

Objectives of the course:

1. To understand the accounting treatment for issue of shares
2. To determine profits for fire and marine insurance
3. To prepare consolidated financial statements
4. To account for price level changes
5. To adopt financial reporting standards

UNITS	Contents	COs	Cognitive Levels
UNIT-I	UNIT 1 (18 hrs) Issue of Shares and Final Accounts of Companies Issue of Shares: ESOPs - ESPPS - Sweat Equity Shares - Book Building- Buy-back of Shares - Conversion of debentures into shares - Final accounts of Companies as per Schedule III of the Companies Act, 2013 – Managerial remuneration.	CO1	K1 K2 K3 K4
UNIT-II	UNIT II (18 hrs) Insurance Company Accounts Insurance Company Accounts: Types of Insurance - Final accounts of life assurance Companies- Ascertainment of profit- Valuation Balance Sheet-Final accounts of Fire, Marine and miscellaneous Insurance Companies.	CO2	K1 K2 K3 K4
UNIT-III	Unit III (18 hrs) Consolidated financial statements Consolidated financial statements as per AS 21: Consolidated Profit and Loss Account– Minority interest – Cost of control – Capital reserve – Inter-company holdings – Preparation of consolidated Balance Sheet.	CO3	K1 K2 K3 K4
UNIT-IV	UNIT IV (18 hrs) Contemporary Accounting Methods Accounting for price level changes – Social responsibility accounting – Human resource accounting.	CO4	K1 K2 K3 K4

UNIT-V	UNIT V	(18 hrs)		
	Financial reporting	Financial reporting: Meaning, Objectives, Characteristics – Indian Accounting Standards (AS 5, AS 10, AS 19, AS 20)	CO5	K1
	– Corporate Social Responsibility: Meaning, Key provisions of Companies Act, 2013, Accounting for CSR expenditure, Reporting of CSR, Presentation and disclosure in the financial statements.			K2
				K3
				K4

Recommended Text Books

1. Gupta R. L. &Radhaswamy M. (2021), “Corporate Accounting – Volume I & II”, 14thEdition, Sultan Chand &Sons, New Delhi.
2. Maheshwari S. N., Sharad K. Maheshwari&Suneel K. Maheshwari, (2022),“Advanced Accountancy - Volume I &II”, 11thEdition, Vikas PublishingHouse Pvt. Ltd., New Delhi.
3. Jain S. P., Narang K. L., Simmi Agrawal and Monika Sehgal (2019), “Advanced Accountancy - Corporate Accounting – Volume - II”, 22ndEdition, Kalyani Publishers, New Delhi.
4. Reddy T. S. &Murthy A., (2022), “Corporate Accounting – Volume I &II”, 17th Edition, Margham Publications, Chennai.

ReferenceBooks

1. Arulanandam M.A &Raman K.S., (2021), “Advanced Accounting (Corporate Accounting – II)”, 8th Edition, Himalaya Publishing House Pvt Ltd, Mumbai.
2. Shukla M C, Grewal T S and Gupta S C, (2022), “Advanced Accounts Volume II”, 19th Edition, Sultan Chand &Sons, New Delhi.
3. Gupta R. L., (2022), “Problems and Solutions in Company Accounts”, 2nd Edition, Sultan Chand &Sons, New Delhi.

Website and e-learning source

1. <https://resource.cdn.icai.org/66550bos53754-p1-cp9.pdf>
2. <https://resource.cdn.icai.org/66545bos53754-p1-cp4.pdf>
3. <https://resource.cdn.icai.org/66638bos53803-cp1.pdf>
4. <http://ppup.ac.in/download/econtent/pdf/MBA%201st%20sem%20Lecture%20note%20on%20forensic%20accounting%20by%20Anjali.pdf>

Course Learning Outcomes (for Mapping with POs and PSOs)

On completion of the course the students should be able to

COs	CO Description	Cognitive Level
CO1	Determine profit and financial position by preparing financial statements of companies as per schedule III of Companies Act, 2013	K1,K2,K3,K4
CO2	Apply the provisions of IRDA Regulations in the preparation of final accounts of Life Insurance and General Insurance Companies.	K1,K2,K3,K4
CO3	Determine the overall profitability and financial position by preparing consolidated financial statements of holding companies in accordance with AS21.	K1,K2,K3,K4
CO4	Analyze contemporary accounting methods	K1,K2,K3,K4
CO5	Examine Financial Reporting based on appropriate Accounting Standards and provisions of Companies Act 2013 with respect to Corporate Social Responsibility	K1,K2,K3,K4

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	3	3	-	-	-	-	-	-	-	-	3	2	-
CO2	3	3	-	-	-	-	-	-	-	-	3	2	-
CO3	3	3	-	3	2	2	-	-	-	-	3	2	1
CO4	3	3	-	3	2	2	-	-	-	-	3	2	1
CO5	3	3	-	3	2	2	-	-	-	-	3	2	1

COURSE DESCRIPTORS

Title of the Course	SETTING UP OF BUSINESS ENTITIES	Hours/Week	06
Course Code	APCCP23	Credits	04
Category	Core VI	Year & Semester	I & II
Prerequisites	UG Commerce (Computer Applications)	Regulation	2024

Objectives of the course:

1. To understand the start-up landscape and its financing
2. To analyze the formation and registration of Section 8 company
3. To outline the concept of LLP and business collaboration
4. To understand the procedure for obtaining registration and license
5. To create awareness about the legal compliances governing business entities

UNITS	Contents	COs	Cognitive Levels
UNIT-I	Start-ups in India Start-ups – Evolution – Definition of a Start-up – Start-up landscape in India – Start-up India policy – Funding support and incentives – Indian states with Start-up policies – Exemptions for start-ups – Life cycle of a Start-up – Important points for Start-ups – Financing options available for Start-ups – Equity financing – Debt financing – Venture capital financing – IPO – Crowd funding – Incubators - Mudra banks –Successful Startups in India.	CO1	K1 K2 K3
UNIT-II	Non-Profit Organisations Formation and registration of NGOs – Section 8 Company – Definition – Features – Exemptions – Requirements of Section 8 Company – Application for incorporation – Trust: Objectives of a trust – Persons who can create a trust – Differences between a public and private trust – Exemptions available to trusts – Formation of a trust - Trust deed –Society – Advantages – Disadvantages – Formation of a society – Tax exemption to NGOs.	CO2	K1 K2 K3

UNIT-III	Limited Liability Partnership and Joint Venture Limited Liability Partnership: Definition – Nature and characteristics – Advantages and disadvantages – Procedure for incorporation – LLP agreement – Annual compliances of LLP-Business collaboration: Definition – Types – Joint venture: Advantages and disadvantages – Types – Joint venture agreement - Successful joint ventures in India.	CO3	K1 K2 K3
UNIT-IV	Registration and License Registration and License: Introduction – Business entity registration – Mandatory registration – PAN – Significance – Application and registration of PAN – Linking of PAN with Aadhaar –TAN – Persons liable to apply for TAN – Relevance of TAN – Procedure to apply for TAN –GST: Procedure for registration – Registration under Shops and Establishment Act – MSME registration – Clearance from Pollution Control Board – FSSAI registration and license – Trade mark, Patent and Design registration.	CO4	K1 K2 K3
UNIT-V	Environmental Legislations in India Water (Prevention and Control of Pollution) Act, 1974 – Air (Prevention and Control of Pollution) Act, 1981 – Environment Protection Act, 1986 – National Green Tribunal Act, 2010.	CO5	K1 K2 K3

Recommended Text Books:

1. Kailash Thakur, (2007) “Environment Protection Law and Policy in India”, 2nd Edition, Deep & Deep Publication Pvt. Ltd., New Delhi.
2. Avtar Singh, (2015), “Intellectual Property Law”, Eastern Book Company, Bangalore
3. Zad N.S and DivyaBajpai, (2022) “Setting up of Business Entities and Closure” (SUBEC), Taxmann, Chennai
4. Amit Vohra & RachitDhingra (2022) “Setting Up Of Business Entities & Closure”, 6 th Edition, Bharath Law House, New Delhi

Reference Books

1. Setting up of Business Entities and Closure (2021), Module 1, Paper 3, The Institute of Company Secretaries of India, MP Printers, Noida
2. The Air (Prevention and Control of Pollution) Act, 1981, Bare Act, 2022 Edition, Universal/LexisNexis, Noida
3. The Water (Prevention and Control of Pollution) Act, 1974, Bare Act, 2022 Edition, Universal/LexisNexis, Noida
4. Cliff Ennico, (2005) "Small Business Survival Guide Starting Protecting and Securing your Business for Long-Term Success", Adams Media, USA
5. Daniel Sitarz, (2011) "Sole Proprietorship: Small Business Start-up Kit", 3rd Edition, Nova Publishing, USA

Website and e-learning source

1. https://www.icsi.edu/media/webmodules/FINAL_FULL_BOOK_of_EP_SBEC_2018.pdf
2. https://www.mca.gov.in/MinistryV2/incorporation_company.html
3. <https://legislative.gov.in/sites/default/files/The%20Limited%20Liability%20Partnership%20Act,%202008.pdf>
4. <https://legislative.gov.in/sites/default/files/A1999-48.pdf>
5. https://www.indiacode.nic.in/bitstream/123456789/6196/1/the_environment_protection_act%2C1986.pdf

Note: Latest edition of the books may be used

Course Learning Out comes(for Mapping with POs and PSOs)

On completion of the course the students should be able to

COs	CO Description	Cognitive Level
CO1	Compare the various avenues of acquiring finance to setup a business entity	K1, K2, K3
CO2	Recall the legal requirements for Section 8 Company	K1, K2, K3
CO3	Examine the provisions for LLP and joint venture	K1, K2, K3
CO4	Analyse the registration and licensing procedure	K1, K2, K3
CO5	Examine the compliance of regulatory framework regarding environment	K1, K2, K3

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	3	3	-	2	2	2	2	2	-	2	3	3	2
CO2	3	3	3	-	2	2	2	2	-	2	3	3	2
CO3	3	3	3	-	2	2	2	2	-	2	3	3	2
CO4	3	3	-	2	2	2	2	2	-	2	3	3	2
CO5	3	3	-	2	2	2	2	2	-	2	3	3	2

COURSE DESCRIPTORS

Title of the Course	DATA MINING AND DATA WAREHOUSING	Hours/Week	03
Course Code	APECP24 A	Credits	03
Category	Elective III	Year & Semester	I & II
Prerequisites		Regulation	2024

Objectives of the course:

- To understand the basic concepts, principles and need of data warehousing
- To gain knowledge on the data warehouse architecture, modelling and its implementation.
- To understand steps in implementing data mart and its various dimensions
- To learn the features, types and challenges of data mining
- To aid the students to understand the various data mining tools and techniques

UNITS	Contents	COs	Cognitive Levels
UNIT-I	UNIT I (12 hrs) Data Warehouse Definition - history of data warehouse - features of data warehouses - characteristics of data warehouse - goals of data warehousing- principles of data warehousing - need for data warehouse - benefits of data warehouse - need for separate data warehouse - difference between database and data warehouse - applications of data warehouses - components of data warehouse- data staging component.	CO1	K2
UNIT-II	UNIT II (12 hrs) Data Warehouse Architecture Data warehouse architecture - properties of data warehouse architectures - types of data warehouse architectures- three-tier data warehouse architecture - ETL (extract, transform, and load) process - selecting an ELT tool- Difference between ETL and ELT types of data warehouses - data warehouse modelling - data modelling life cycle - types of data 43 warehouse models- data warehouse design - data warehouse implementation- implementation guidelines - meta data - necessary of metadata in data warehouses - types of metadata- metadata repository - benefits of metadata repository.	CO2	K4

UNIT-III	UNIT III (12 hrs) Data Mart Data Mart- Reasons for creating a data mart- Types of Data Marts- Steps in Implementing a Data Mart- Difference between Data Warehouse and Data Mart. - Dimensional Modeling-Objectives of Dimensional Modeling- Advantages of Dimensional Modeling - Elements of Dimensional Modeling - Dimension Table- Multidimensional Data Model Data Cube.	CO3	K4
UNIT-IV	UNIT IV (12 hrs) Data Mining Definition - History of Data Mining- Features of Data Mining - Types of Data Mining - Data Mining Vs Data Warehousing- Advantages and Disadvantages of Data Mining - Data Mining Applications - Challenges of Implementation in Data mining - Steps involved in Data Mining - Classification of Data Mining Systems.	CO4	K2
UNIT-V	UNIT V (12hrs) Data Mining Tools & Techniques Data Mining Implementation Process - Data Mining Architecture - Clustering in Data Mining - Different types of Clustering - Text Data Mining - Bitcoin Data Mining - Data Mining Vs Big Data - Data Mining Models - Trends in Data Mining.	CO5	K4

Recommended Text Books

1. Jiawei Han, MichelineKamber (2011), Data Mining, Concepts and Techniques, Morgan Kauffman Publishers, California.
2. Pang Ning Tan, Michael Steinbach, Vipin Kumar (2005), Introduction to Data Mining, Addison Wesley, USA.
3. K. P. Soman, ShyamDiwakar, V. Ajay (2006), Insight into Data Mining: Theory & Practice, Prentice Hall of India, New Delhi.

Reference Books

1. BPB Editorial Board (2004), "Data Mining", BPB publications, Noida.
2. Ian H. Witten & Eibe Frank (2011), "Data Mining, Practical Machine Learning Tools and Techniques", Morgan Kaufmann series.
3. Ramesh Sharda, Dursun Delen, Efraim Turban (2018), "Business Intelligence", Pearson Education Services Pvt Ltd, Noida.

Website and e-learning source

1. https://mrcet.com/downloads/digital_notes/ME/III%20year/ERP%20Complete%20Digital%20notes.pdf
2. [https://mrcet.com/pdf/Lab%20Manuals/IT/DATA%20WAREHOUSING%20AND%020DATA%20MINING%20\(R18A0524\).pdf00](https://mrcet.com/pdf/Lab%20Manuals/IT/DATA%20WAREHOUSING%20AND%020DATA%20MINING%20(R18A0524).pdf00)

Course Learning Outcomes (for Mapping with POs and PSOs)

On completion of the course the students should be able to

COs	CO Description	Cognitive Level
CO1	Explain the basic concepts, principles and need of data warehousing	K2
CO2	Appraise data warehouse architecture, modelling and its implementation.	K4
CO3	Choose various steps in implementing data mart and its dimensions	K4
CO4	Recall the features and types of data mining	K2
CO5	Apply various data mining tools and techniques	K4

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	3	2	3	2	2	-	-	-	-	-	3	3	3
CO2	3	1	3	2	2	1	1	1	-	1	3	3	3
CO3	2	2	3	3	2	-	-	2	-	1	3	3	3
CO4	3	-	3	3	3	2	2	2	-		3	3	3
CO5	3	3	3	3	3	3	2	-	2	2	3	3	3

COURSE DESCRIPTORS

Title of the Course	TECHNOLOGY IN BANKING	Hours/Week	03
Course Code	APECP24 B	Credits	03
Category	Elective III	Year & Semester	I & II
Prerequisites		Regulation	2024

Objectives of the course:

1. To understand the network essentials for an operational core banking system
2. To provide an overview of customer centric electronic banking.
3. To understand the evolution of electronic fund transfer systems in the banking sector
4. To analyse the digital technologies offered in banking services.
5. To understand the information security system

UNITS	Contents	COs	Cognitive Levels
UNIT-I	UNIT I (12 hrs) Introduction to Core Banking Computerization Essentials of Bank Computerization–Stand Alone and Multi User System – Local Area Network and Wide Area Network: Features, Advantages and Limitations – Core Banking: Essential Requirements and Benefits.	CO1	K2
UNIT-II	UNIT II (12 hrs) Electronic Payment System and Banking Facilities Electronic Payment Systems – ATM: Features – Advantages Disadvantages–Brown Label and White Label ATM, PIN, Electro Magnetic Cards, Credit Cards, Debit Cards and Smart Cards: Features, Benefits and Limitations – Multiple Pin in Smart Card – Electronic Purse – Electronic Cheque – Electronic Cash – Electronic Banking – Home Banking(Corporate and Personal) – Update Facilities – Internet Banking – Mobile Banking: Features, Advantages and Limitations – Signature Storage and Retrieval System – Cheque Truncation – MICR and OCR: Characteristics –Advantages and Limitations.	CO2	K4

UNIT-III	UNIT III (12 hrs) Electronic Fund Transfer and Its Transitions Electronic Fund Transfer System – Electronic Credit and Debit Clearing – NEFT, RTGS, VSAT, SFMS, SWIFT: Features, Advantages and Limitations – Digital Signature Unified Payments Interface (UPI): Concept, Mechanism and Services Covered – Digital Wallets (E-Wallets): Features, Benefits and Types.	CO3	K4
UNIT-IV	UNIT IV (12 hrs) Trends in Banking Technology Recent Developments in Banking Technology: Digital Account Opening – Application Programming Interface – Video Collaboration – Person-to-Person Payments – Cloud Computing – NUUP (National Unified USSD Platform), AePS (Aadhaar enabled Payment System) – APBS (Aadhaar Payments Bridge System) - Role of IDBRT (Institute of Development and Research in Banking) in banking technology development - Status of E-banking in India - Process of E-Banking - Benefits of E-banking - Emerging challenges in banking industry - Scope of IT to tackle the key challenges.	CO4	K2
UNIT-V	UNIT V (12 hrs) Information Security System Information security - Software based security systems - Hardware based security systems (smart card, M chip) – Hackers: Techniques used by the hackers, Phishing, Pharming, Key loggers, Screen loggers, Phishing - Trojans transaction poisoning - Card related fraud - Site cloning – False merchant site - Authentication methodologies and security measures (Password protection - Smart cards - Biometric characteristics) - Encryption and security - Customer confidentiality - Regulatory environment of internet banking - Legal Framework for Electronic Transactions – Cyber security as per Information Technology Act, 2000 – RBI Guidelines on Internet Banking.	CO5	K4

Recommended Text Books

1. SangeethaR,(2013) “Technology in Banking”, 1st Edition, Charulatha Publications, Chennai.
2. Sohani, A K, (2012) “Technology in Banking Sector”, SBS Publishers and Distributors Pvt Ltd, New Delhi.
3. Uppal R K and Dhiraj Sharma, (2017) “Banking with Technology: A New Vision 2020”, Bharti Publication, New Delhi
4. Indian Institute of Banking and Finance, (2017) “Information Technology, Data Communications and Electronic Banking”, 3rd Edition, Macmillan Publishers India Private Limited, Noida.

Reference Books

1. Vadlamani Ravi, (2007) “Advances in Banking Technology and Management: Impacts of ICT and CRM”, 1st Edition, Information Science Reference, Hershey, (USA).
2. Lucian Morrisand Tim Walker, (2021) “ The Handbook of Banking Technology” , John Wiley & Sons, New York.
3. Indian Institute of Banking and Finance, (2017), “Security in Electronic Banking”, 3rd Edition, Macmillan Publishers India Private Limited, Noida.
4. Uppal R.K., AgrimUppal(2008) “Banking Services and Information Technology: The Indian Experience”, New Century Publications, New Delhi.

Website and e-learning source

1. <https://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/64767.pdf>
2. https://www.researchgate.net/profile/RaviVadlamani/publication/237383828_Chapter_I_Introduction_to_Banking_Technology_and_Management/links/572a89bc08aef7c7e2c4fbc3/Chapter-I-Introduction-to-Banking-Technology-and-Management.pdf
3. https://eprocure.gov.in/cppp/rulesandprocs/kbadqkdlcswfjdelrquehwuxcfmijmuixngu_dufgbuub_gubfugbububjxcgfvbsdihbgfGhdfgFHtythRtMjk4NzY=#:~:text=%5B9th%20June%2C%202000%5D%20An,communication%20and%20storage%20of%20information%20

Course Learning Outcomes (for Mapping with POs and PSOs)

On completion of the course the students should be able to

COs	CO Description	Cognitive Level
CO1	Discuss the utility of stand-alone and multi-user systems access in Core banking.	K2
CO2	Assess the multi-faceted electronic payment options available to customer and host transactions in banking.	K4
CO3	Evaluate the dynamic transitions in Electronic Fund transfer systems.	K4
CO4	Evaluate the enhanced utility and user interface and other recent developments in banking technologies.	K2
CO5	Assess the information security system	K4

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	3	2	3	2	2	-	-	-	-	-	3	3	3
CO2	3	1	3	2	2	1	1	1	-	1	3	3	3
CO3	2	2	3	3	2	-	-	2	-	1	3	3	3
CO4	3	-	3	3	3	2	2	2	-		3	3	3
CO5	3	3	3	3	3	3	2	-	2	2	3	3	3

COURSE DESCRIPTORS

Title of the Course	FINANCIAL ANALYTICS (PRACTICALS)	Hours/Week	03
Course Code	APECP25 A	Credits	3
Category	Elective IV	Year & Semester	I & II
Prerequisites		Regulation	2024

Objectives of the course:

- To understand the statistical concepts relating to Probability, decision making under uncertainty and analysis of exploratory data
- To learn the use of regression, time series analysis and building of models using accounting data
- To gain knowledge on R and python programming
- To prepare, analyse and forecast financial statements using cash flow statements
- To gain knowledge on concept, application, and issues in capital budgeting

UNITS	Contents	COs	Cognitive Levels
UNIT-I	UNIT I (12 hrs) Statistical Concepts Probability, Normal, Lognormal distribution properties, Decision making under uncertainty - Cleaning and pre-processing financial data, Exploratory Data Analysis in Finance	CO1	K2
UNIT-II	UNIT II (12 hrs) Simple Linear Models Use of Regression in Finance, Building Models using Accounting Data, Understanding stock price behaviour, time series analysis in finance.	CO2	K4
UNIT-III	UNIT III (12 hrs) Using R for Analysis of Data Quick introduction to R and Python, understanding data in finance, sources of data, Using R for analysis of data.	CO3	K4
UNIT-IV	UNIT IV (12 hrs) Cash Flow Concepts Cash flow statement – Prepare and Analyse, Modelling and forecasting of financial statements.	CO4	K2
UNIT-V	UNIT V (12 hrs) Capital Budgeting NPV, IRR – Concept, application, and issues, Use of real options for better financial outcomes.	CO5	K4

Recommended Text Books

1. Gary Koop, "Analysis of Economic Data", 4th Edition, Wiley, USA.
2. David Ruppert, David S. Matteson, "Statistics and Data Analysis for Financial Engineering: with R examples", Springer, USA.

Reference Books

1. Ang Clifford, "Analyzing Financial Data and Implementing Financial Models Using 'R'", Springer, USA.
2. Wayne L. Winston, "Microsoft Excel 2013: Data Analysis and Business Modeling", Microsoft Publishing, USA.

Website and e-learning source

1. https://personal.ntu.edu.sg/nprivault/MH8331/financial_risk_analytics.pdf
2. <https://dynamics.microsoft.com/en-us/finance/what-is-financial-analytics/>

Course Learning Outcomes (for Mapping with POs and PSOs)

On completion of the course the students should be able to

COs	CO Description	Cognitive Level
CO1	Analyse decisions under uncertainty and also analyse exploratory	K2
CO2	Build models using accounting data and analyse using regression and time series tools	K4
CO3	Apply R and python programming	K4
CO4	Estimate and analyse financial statements using cash flow statements	K2
CO5	Select appropriate capital budgeting techniques for decision making	K4

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	3	2	3	2	2	-	-	-	-	-	3	3	3
CO2	3	1	3	2	2	1	1	1	-	1	3	3	3
CO3	2	2	3	3	2	-	-	2	-	1	3	3	3
CO4	3	-	3	3	3	2	2	2	-		3	3	3
CO5	3	3	3	3	3	3	2	-	2	2	3	3	3

COURSE DESCRIPTORS

Title of the Course	MANAGEMENT INFORMATION SYSTEM	Hours/Week	03
Course Code	APECP25B	Credits	03
Category	Elective IV	Year & Semester	I & II
Prerequisites		Regulation	2024

Objectives of the course:

1. To understand the basic concept of Information system
2. To identify the importance of MIS
3. To understand the Functional Management Information System
4. To learn the role of system analyst
5. To apply the concept of Enterprise Resource Planning

UNITS	Contents	COs	Cognitive Levels
UNIT-I	UNIT I (12 hrs) Information System Introduction to information system - Management - Structure and Activities - Information needs and sources - Types of management decisions and information need - System classification - Elements of system, input, output, process and feedback.	CO1	K2
UNIT-II	UNIT II (12 hrs) Types of Management Information Systems Transaction Processing Information System - Information system for managers - Intelligence information system – Decision support system - Executive information systems.	CO2	K4
UNIT-III	UNIT III (12 hrs) Functional Management Information Systems Functional Management Information System: Production Information system - Marketing Information Systems - Accounting Information System - Financial Information System - Human Resource Information System.	CO3	K4
UNIT-IV	UNIT IV (12 hrs) System design and Database System Analysis and Design: The work of a system analyst - SDLC- System design – Requirement analysis - Data flow diagram - Relationship diagram - Design Implementation - Evaluation and maintenance of MIS - Database System: Overview of Database - Components - Advantages and disadvantages of database.	CO4	K2

UNIT-V	UNIT V (12 hrs) Enterprise Resource Planning Enterprise Resource Planning (ERP) System - Benefits of the ERP - How ERP is different from conventional packages - Need for ERP - ERP components - Selection of ERP Package - ERP implementation - Customer Relationship management - Organisation & Types - Decision Making - Data & information - Characteristics & Classification of information - Cost & value of information - Various channels of information and MIS	CO5	K4
Recommended Text Books <ol style="list-style-type: none"> 1. Azam, M (2012), "Management Information System", McGrawHill Education, Noida. 2. Laudon, K., Laudon, J. and Dass, R. (2010), "Management Information Systems – Managing the Digital Firm", 11th Edition, Pearson, Noida. 3. Murdick, R.G., Ross, J.E. and Claggett, J.R. (2011), "Information Systems for Modern Management", 3rd Edition, PHI, New Delhi. 			
Reference Books <ol style="list-style-type: none"> 1. O'Brien, J.A., Morakas, G.M. and Behl, R. (2009), "Management Information Systems", 9th Edition, Tata McGraw-Hill Education, Noida. 2. Saunders, C.S. and Pearson, K.E. (2009), "Managing and Using Information Systems", 3rd Edition, Wiley India Pvt. Ltd., New Delhi. 3. Stair, R. and Reynolds, G. (2012), "Information Systems", 10th Edition, Cengage Learning, Noida. 			
Website and e-learning source <ol style="list-style-type: none"> 1. https://cleartax.in/g/terms/mis-meaning-mis-full-form-marketing-information-system/amp 2. https://www.techtarget.com/searchitoperations/definition/MIS-management-information-systems 			

Course Learning Outcomes (for Mapping with POs and PSOs)

On completion of the course the students should be able to

COs	CO Description	Cognitive Level
CO1	Identify the basic concept of Information system	K2
CO2	Understand various types of Management Information System	K4
CO3	Apply MIS in Functional areas of business	K4
CO4	Describe the role of system analyst	K2
CO5	Apply the concept of Enterprise resource planning	K4

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	3	2	3	2	2	-	-	-	-	-	3	3	3
CO2	3	1	3	2	2	1	1	1	-	1	3	3	3
CO3	2	2	3	3	2	-	-	2	-	1	3	3	3
CO4	3	-	3	3	3	2	2	2	-		3	3	3
CO5	3	3	3	3	3	3	2	-	2	2	3	3	3

COURSE DESCRIPTORS

Title of the Course	ADVERTISING AND MEDIA MANAGEMENT	Hours/Week	04
Course Code	APSCP26	Credits	02
Category	SKILL ENHANCEMENT	Year & Semester	I & II
Prerequisites		Regulation	2024

Objectives of the course:

1. To acquaint students with creative strategies in advertising
2. To educate students on the importance of media advertising
3. To assist students to create an Advertisement Copy
4. To acquaint students with creative strategies in advertising
5. To educate students on the importance of media advertising

UNITS	Contents	COs	Cognitive Levels
UNIT-I	UNIT 1 (12 hrs) Introduction Meaning, Definition and Evolution of Advertising – Role of Advertising – Advertising as a Promotional tool –Economic, Social and Ethical Aspects of Advertising – Advertising as a Communication Process	CO1	K2
UNIT-II	UNIT 2 (12 hrs) Creative Strategy Management Advertisement Copy and Advertisement Designing Meaning – Preparation and process – Types of Advertisement Copy –Elements of Advertisement Copy and advertisement Design Advertisement Layout Structure of an Advertisement Layout– Principles of Advertisement Layout	CO2	K4
UNIT-III	UNIT 3 (12 hrs) Advertising and Campaign Planning Marketing Strategy and Situational Analysis–Advertising Plan and Objectives– DAGMAR Approach–Preparation of Campaign–Stages in Campaign Process	CO3	K4
UNIT-IV	UNIT 4 (12 hrs) Advertising Media Strategy Role of Media, Types of Media Indoor, Outdoor, Electronic and Online Advantages and Disadvantages – Media Planning Selection and Scheduling	CO4	K2

UNIT-V	UNIT 5 (12 hrs) Media Management strategies Media Choice Criteria-Factors affecting Choice of Media –Choosing the right Agency Role, Types and Functions of Advertisement Agencies, Selection and Coordination of Advertising Agency – Advertisement Budgeting – Types –Affordable Rate Method, Percentage of Sales Method, Competitive Parity Method and Objective and Task Method	CO5	K4
	Theory 80% Practical Exposure 20%		
Recommended Text Books Belch. Advertising and Promotion. New Delhi, Tata Mc Graw Hill, 2017 2. Kenneth, E. Clow & Donald E. Baack. Integrated Advertising Promotion & Marketing Communication. New Delhi: Prentice Hall, 2015.			
Reference Books 1. Bovee, John. Courtland. L. George, Dovel.P and Wood, Marian Burk. Advertising Excellence, New Delhi, TataMcGraw Hill.1994 2. Wells. Advertising Principles and Practice, New Delhi, Prentice Hall of India, 2016 3. Christ in a Spurgeon. Advertising and New Media. USA Taylor & Francis, latest edition 4. Appannaiah .H. RandRamnath, Advertising and Media Management, Himalaya Publisher,2016			
Website and e-learning source Journals: Journal of Advertising, Research Journal of Advertising Education			

Note: Latest edition of the books may be used

Course Learning Outcomes (for Mapping with POs and PSOs)

On completion of the course the students should be able to

COs	CO Description	Cognitive Level
CO1	Understand advertising and its communication process and develop advertising copy	K2
CO2	Analyze individual media businesses and understand the economic drivers of the media economy	K4
CO3	Analysis marketing strategy and prepare campaign	K4
CO4	Develop an integrated marketing plan using a wide variety of media	K2
CO5	Understand media choices and prepare advertisement budgeting	K4

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	3	3	1	3	2	2	-	-	-	-	3	1	2
CO2	2	2	3	2	3	3	1	1	-	1	2	2	1
CO3	2	1	2	3	2	2	-	2	-	1	3	3	3
CO4	1	3	1	2	1	1	2	2	-		2	2	2
CO5	3	2	2	2	2	2	2	-	2	2	1	1	1

COURSE DESCRIPTORS

Title of the Course	Taxation	Hours/Week	06
Course Code	APCCP31	Credits	05
Category	Core VII	Year & Semester	II & III
Prerequisites	UG Commerce (Computer Applications)	Regulation	2024

Objectives of the course:

- To identify deductions from gross total income of persons other than individual
- To compute taxable income for different classes of persons other than individual
- To understand the procedure for filing of returns and tax planning
- To assess Goods and Services Tax and Assessment of GST
- To compute customs duty as per Customs Act

UNITS	Contents	COs	Cognitive Levels
UNIT-I	UNIT I (18 hrs) Deductions (other than Individual) - Deductions to be made in computing total income of persons other than individual - (80G, 80GGB & 80GGC, 80IA, 80IAB, 80IAC, 80IB, 80IBA, 80ID, 80IE, 80JJA, 80JJAA, 80LA, 80M, 80P, 80PA) – Theory and Problems	CO1	K1,K2,K3
UNIT-II	UNIT II (18 hrs) Assessment of persons (other than Individual) - Assessment of Firms, AOP, BOI, Company and Co-operative society - Problems	CO2	K1,K2,K3
UNIT-III	UNIT III (18 hrs) Tax Returns and Tax planning - Return of income: Statutory obligation, Return Forms, Time for filing of return, Revised return, updated return, Modified return–Assessment -Tax Deducted at Source - Advance payment of Tax - Tax planning, Tax avoidance and Tax evasion – Theory only	CO3	K1,K2,K3, K4

UNIT-IV	UNIT IV (18 hrs) Goods and Services Tax - Goods and Services Tax: GST Act, 2017 – Important Definitions - Registration – Procedure for registration under Schedule III – Amendment of registration – Rates of Tax of IGST, CGST, SGST/UGTST- Assessment of GST- Self assessment – Provisional assessment – Scrutiny of returns – Assessment of non-filers of returns – Assessment of unregistered persons – Assessment in certain special cases – Tax Invoice – Credit and Debit Notes – Input Tax Credit- Theory only	CO4	K1,K2,K3, K4
UNIT-V	UNIT V (18 hrs) Customs Act- Customs Act: Important Definitions – Basics – Importance of Customs Duty – Constitutional authority for levy of Customs Duty – Types of Customs Duty – Prohibition of Importation and Exportation of goods – Valuation of goods for Customs Duty – Transaction Value – Assessable Value – Computation of Assessable Value and Customs Duty – Simple Problems and Theory	CO5	K1,K2,K3, K4
	Problems: 60% and Theory: 40%		

Recommended Text Books

1. Vinod Singhania and Kapil Singhania, Direct Taxes Law & Practice Professional Edition, Taxmann Publications, New Delhi
2. Mehrotra H.C. and Goyal S.P, Income Tax including Tax Planning & Management, Sahitya Bhawan Publications, Agra
3. Sekar G, “Direct Taxes” - A Ready Refresher, Sitaraman C.& Co Pvt.Ltd., Chennai.
4. Balachandran V, (2021) Textbook of GST and Customs Law, Sultan Chand and Sons, New Delhi
5. Vandana Bangar and Yogendra Bangar, “Comprehensive Guide to Taxation”(Vol.I and II), Aadhya Prakashan, Prayagraj(UP).

Reference Books

1. Sha R.G. and Usha DeviN.,(2022) “Income Tax” (Direct and Indirect Tax), Himalaya Publishing House, Mumbai.
2. Girish Ahuja and Ravi Gupta, “Practical Approach to Direct and Indirect Taxes: Containing Income Tax and GST”, Wolters Kluwer India Private Limited
3. Swetha Jain, GST Law & Practice, Taxmann Publishers Pvt.Ltd, Chennai.
4. DatyV.S., “GST - Input Tax Credit”, Taxmann Publishers, Chennai. 5. AnuragPandy, “Law & Practices of GST and Service Tax”- Sumedha Publication House, New Delhi.

Website and e-learning source

1. https://www.icsi.edu/media/webmodules/16112021_Advance_Tax_Laws.pdf
2. https://www.icsi.edu/media/webmodules/Final_Direct_Tax_Law_17_12_2020.pdf
3. https://www.icsi.edu/media/webmodules/TL_Final_pdf_25102021.pdf

Course Learning Outcomes (for Mapping with POs and PSOs)

On completion of the course the students should be able to

COs	CO Description	Cognitive Level
CO1	Apply the provisions of income tax to determine taxable income	K1,K2,K3
CO2	Plan taxes	K1,K2,K3
CO3	Illustrate the nuances of international business taxation	K1,K2,K3,K4
CO4	Apply the provisions of GST	K1,K2,K3,K4
CO5	Summarize the provisions of Customs Act	K1,K2,K3,K4

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	3	3	3	3	3	3	2	3	2	2	3	3	2
CO2	3	3	3	3	3	3	2	3	2	3	3	3	3
CO3	3	3	3	3	3	3	2	3	2	3	3	3	3
CO4	3	3	3	3	3	3	2	3	2	1	3	2	3
CO5	3	3	3	3	3	3	2	3	2	3	3	3	2

COURSE DESCRIPTORS

Title of the Course	Research Methodology	Hours/Week	06
Course Code	APCCP32	Credits	05
Category	Core VIII	Year & Semester	II& III
Prerequisites	UG Commerce (Computer Applications)	Regulation	2024

Objectives of the course:

- To understand the fundamentals of research
- To construct theoretical design and formulate hypotheses
- To evaluate the data collection techniques
- To perform parametric and non-parametric tests
- To enhance report writing skills and develop ethical conduct in research

UNITS	Contents	COs	Cognitive Levels
UNIT I	UNIT I (18 hrs) Introduction to Research Methodology Research: Definition – Objectives – Motivations for Research – Types of Research – Approaches of Research – Significance of Research – Research Process – Criteria of Good Research – Applications of Research in Business – Formulating a Research Problem – Literature Review – Reasons for Review – Reference Management Tools – Identification of Research Gap – Framing of Objectives.	CO1	K1,K2,K3,K4
UNIT-II	UNIT II (18 hrs) Hypothesis Testing and Research Design Hypothesis – Formulation of Hypothesis – Testing of Hypothesis – Type I and Type II Errors – Research Design – Features of Good Research Design – Types of Research Design – Design of Sample Surveys: Sample Survey vs. Census, Case Study – Sampling: Steps in Sampling Design, Methods of Sampling – Testing of Reliability and Validity – Sampling Errors.	CO2	K1,K2,K3,K4,K5

UNIT-III	UNIT III (18 hrs) Data Collection Variable: Meaning and Types – Method of Data Collection – Primary Data: Meaning, Advantages and Limitations – Techniques: Interview, Schedule, Questionnaire, Observation – Secondary Data: Meaning – Significance and Limitations – Sources.	CO3	K1,K2,K3,K4
UNIT-IV	UNIT IV (18 hrs) Data Analysis Data Analysis – Uni-variate Analysis: Percentile, Mean, Median, Mode, Standard Deviation, Range, Minimum, Maximum, Independent Sample t-Test – Bi-variate Analysis: Simple Correlation, Simple Regression, Chi-square, Paired Samples t-test, ANOVA, (Simple Problems) Multivariate Analysis: Multiple Correlation, Multiple Regression, Factor Analysis, Structural Equation Modelling (SEM), Multiple Discriminant Analysis. (Theory only)	CO4	K1,K2,K3,K4,K5
UNIT-V	UNIT V (18 hrs) Preparation of Research Report Report Preparation – Guidelines and Precautions for Interpretation – Steps in Report Writing – Style of Research Reports (APA, Anderson and Harvard) – Types of Reports –Mechanics of Report Writing – Ethics in Research – Avoiding Plagiarism – Plagiarism Checker Tools – Funding Agencies for Business Research.	CO5	K1,K2,K3,K4,K5, K6
	Theory: 80%; Problems: 20%		
Recommended Text Books 1. Kothari C.R and Gaurav Garg, (2020) “Research Methodology” – Methods and Techniques. New Age International (P) Limited, New Delhi.			

Reference Books

1. Krishnaswami and Ranganathan, (2011) "Methodology of Research in Social Sciences", Himalaya Publishing House, Mumbai.
2. Tripathi, (2014) "Research Methodology in Management and Social Sciences". Sultan Chand & Sons, New Delhi.
3. Donald R. Cooper, Pamela S. Schindler and J.K.Sharma, "Business Research Methodology", 12th Edition, Tata Mcgraw Hill, Noida (UP).
4. Sashi K.Guptha and ParneetRangi,(2018) "Research Methodology" , Kalyani Publisher, Ludhiana.
5. Sharma R D and HardeepChahal, (2004) "Research Methodology In Commerce andManagement", Anmol Publications, New Delhi

Website and e-learning source

1. https://www.cartercenter.org/resources/pdfs/health/ephti/library/lecture_notes/health_science_students/In_research_method_final.pdf
2. <https://ccsuniversity.ac.in/bridgelibrary/pdf/MPhil%20Stats%20Research%20Methodology-Part1.pdf>
3. https://prog.lmu.edu.ng/colleges_CMS/document/books/EIE%20510%20LECTURE%20NOTES%20first.pdf
4. <https://www.statisticssolutions.com/academic-research-consulting/data-analysis-plan/>

Course Learning Outcomes (for Mapping with POs and PSOs)

On completion of the course the students should be able to

COs	CO Description	Cognitive Level
CO1	Recall the research concepts and recognize the research problem	K1,K2,K3,K4
CO2	Construct research hypothesis and determine the sample size	K1,K2,K3,K4,K5
CO3	Select appropriate method for data collection	K1,K2,K3,K4
CO4	Interpret the results of statistical tests	K1,K2,K3,K4,K5
CO5	Construct research report avoiding plagiarism	K1,K2,K3,K4,K5,K6

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	3	3	3	3	3	3	3	2	3	1	3	3	3
CO2	3	3	2	3	3	3	3	3	3	3	3	2	3
CO3	3	3	3	3	3	3	3	2	3	2	3	3	3
CO4	3	3	3	3	3	3	3	3	3	3	3	3	3
CO5	3	3	3	3	3	3	2	2	3	3	3	3	2

COURSE DESCRIPTORS

Title of the Course	Computer Application in Business	Hours/Week	06
Course Code	APCPCP33	Credits	05
Category	Core IX	Year & Semester	II & III
Prerequisites	UG Commerce (Computer Applications)	Regulation	2024

Objectives of the course:

- To understand the fundamentals of SPSS
- To compare the values obtained in t-test and ANOVA
- To perform regression and non-parametric tests
- To create company, groups and ledgers and obtain financial statements using Tally Prime
- To understand inventory management and account for goods and services tax

UNITS	Contents	COs	Cognitive Levels
UNIT-I	UNIT I (18 hrs) Introduction to SPSS - Opening a data file in SPSS – Variable view – Data view – Entering data into the data editor – Saving the data file– Table creation – Descriptive statistics: Percentile values, Measures of central tendency, Measures of dispersion, Distribution – Cronbach’s Alpha test – Charts and graphs - Editing and copying SPSS output.	CO1	K1,K2,K3, K4
UNIT-II	UNIT II (18 hrs) Parametric Tests in SPSS - Compare means: One-sample t-test, Independent Samples ttest, Paired-samples t-test and One-way ANOVA, Two-way ANOVA - Correlation: Bivariate, Partial and Multiple -Simple linear regression.	CO2	K1,K2,K3, K4,K5

UNIT-III	UNIT III (18 hrs) Non-parametric Tests in SPSS - Chi-square test - Mann Whitney's test for independent samples – Wilcoxon matched pairs sample test– Friedman's test– Wilcoxon signed rank test – Kruskal Wallis test	CO3	K1,K2,K3, K4
UNIT-IV	UNIT IV (18 hrs) Introduction to Tally Prime - Tally Prime: Introduction – Starting Tally Prime – Creation of a Company - Selecting company - Shutting a company - Altering company– Creating Accounting groups and ledgers – Vouchers – Practical problems for a new and existing business and not-for profit organisation. Accounting reports: Introduction – Displaying Trial balance, Profit and Loss Account, Balance sheet, Day book, Purchase register, Sales register, Cashflow/Funds flow and ratio analysis – Practical problems.	CO4	K1,K2,K3, K4
UNIT-V	UNIT V (18 hrs) Inventory and GST in Tally Prime - Inventory: Introduction to Inventory Masters – Creation of stock group – Creation of Godown – Creation of unit of measurement – Creation of stock item – Entering inventory details in Accounting vouchers – Practical problems. GST: Introduction – Enabling GST – Defining tax details – Entries in Accounting vouchers – View invoice report – Practical problems.	CO5	K1,K2,K3, K4
	100 % Practical only		

Recommended Text Books

1. Sundara Pandian.P, Muthulakshmi. S & Vijayakumar, T (2022), Research Methodology & Applications of SPSS in Social Science Research, Sultan Chand & Sons, New Delhi
2. Morgan George. A, Barrett C Karen, Leech L Nancy and Gloeckner Gene W (2019), IBM SPSS for Introductory Statistics, Routledge, 6th Edition, U.K
3. Official Guide to Financial Accounting using TallyPrime (2021), BPB Publication, Delhi
4. Chheda Rajesh, U (2020), Learn Tally Prime, Ane Books, 4th Edition, New Delhi

Reference Books

1. Kulas John, Renata Garcia Prieto Palacios Roji, Smith Adams (2021), IBM SPSS Essentials: Managing and Analysing Social Sciences Data, 2nd Edition, John Wiley & Sons Inc., New York
2. Rajathi. A, Chandran. P (2011), SPSS for You, MJP Publishers, Chennai
3. SangwanRakesh (2022), Learn Tally Prime in English, Ascend Prime Publication,Pilani
4. LodhaRoshan (2022), Tally Prime with GST Accounting, Law Point Publication, Kolkata

Website and e-learning source

1. <https://www.spss-tutorials.com/basics/>
2. <https://www.tallyclub.in/>
3. <https://tallysolutions.com/business-guides/inventory-management-in-tally-erp9/>

Note: Latest edition of the books may be used

Course Learning Outcomes (for Mapping with POs and PSOs)

On completion of the course the students should be able to

COs	CO Description	Cognitive Level
CO1	Construct data file in SPSS	K1,K2,K3,K4
CO2	Examine Means of samples	K1,K2,K3,K4,K5
CO3	Apply non-parametric tests	K1,K2,K3,K4
CO4	Construct a company, form groups and get automated financial statements	K1,K2,K3,K4
CO5	Plan for automation of inventory	K1,K2,K3,K4

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	3	3	2	3	3	3	2	2	3	2	3	2	3
CO2	3	3	2	3	3	3	2	2	3	2	3	2	3
CO3	3	3	2	3	3	3	2	2	3	2	3	2	3
CO4	3	3	3	3	3	3	3	3	3	3	3	3	3
CO5	3	3	3	3	3	3	3	3	3	3	3	3	3

COURSE DESCRIPTORS

Title of the Course	International Business	Hours/Week	06
Course Code	APCCP34	Credits	04
Category	Core X	Year & Semester	II & III
Prerequisites	UG Commerce (Computer Applications)	Regulation	2024

Objectives of the course:

- To understand the concepts of International Business and International Business Environment
- To analyse the different theories of International Business.
- To understand the legal procedures involved in International Business.
- To evaluate the different types of economic integrations.
- To analyse the operations of MNCs through real case assessment.

UNITS	Contents	COs	Cognitive Levels
UNIT-I	UNIT I (18 hrs) Introduction to International business International Business -Meaning, Nature, Scope and Importance- Stages of internationalization of Business-Methods of entry into foreign markets: Licensing Franchising- Joint Ventures-Strategic Alliances- Subsidiaries and Acquisitions - Recent Developments in International Business.	CO1	K1,K2,K3
UNIT-II	UNIT II (18 hrs) Theoretical Foundations of International business Theoretical Foundations of International Business: Theory of Mercantilism- Theory of Absolute and Comparative Cost Advantage- Haberler's Theory of Opportunity Cost Heckscher- Ohlin Theory Market Imperfections Approach-Product Life Cycle Approach - Transaction Cost Approach-Dunning's Eclectic Theory of International Production.	CO2	K1,K2,K3, K4

UNIT-III	UNIT III (18 hrs) Legal framework of International Business Legal framework of International Business: Nature and complexities: Code and common laws and their implications to Business-International Business contract- Legal provisions, Payment terms.	CO3	K1,K2,K3
UNIT-IV	UNIT IV (18 hrs) Multi-Lateral Agreements and Institutions Multi-Lateral Agreements and Institutions: Economic Integration – Forms: Free Trade Area, Customs Union, Common Market and Economic Union-Regional Blocks: Developed and Developing Countries-NAFTA- EU-SAARC, ASEAN-BRICS- OPEC- Promotional role played by IMF-World Bank and its affiliates- IFC, MIGA and ICSID – ADB-Regulatory role played by WTO and UNCTAD.	CO4	K1,K2,K3, K4
UNIT-V	UNIT V (18 hrs) Multinational Companies (MNCs) and Host Countries Multinational Companies (MNCs) and Host Countries: MNCs – Nature and characteristics - Management Practices - Host Country Government Policies-International Business and Developing countries: Motives of MNC operations in Developing Countries - Challenges posed by MNCs.	CO5	K1,K2,K3, K4

Recommended Text Books

1. Charles W.L. Hill, International Business: Competing in the Global Market Place, McGraw Hill, New York

Reference Books

1. Charles W. L. Hill, Chow How Wee & Krishna Udayasankar, International Business: An Asian Perspective- McGraw Hill, New York
2. . Rakesh Mohan Joshi (2009), International Business, Oxford University Press
3. Donald Ball, Michael Geringer, Michael Minor & Jeanne McNett, International Business: The Challenge of Global Competition, McGraw Hill Education, New York
4. Alan M Rugman & Simon Collinson, International Business: Pearson Education, Singapore

Website and e-learning source

1. <https://www.icsi.edu/media/webmodules/publications/9.5%20International%20Business.pdf>
2. https://ebooks.lpude.in/commerce/mcom/term_3/DCOM501_ INTERNATIONAL_ BUSINESS.pdf
3. <https://www.shobhituniversity.ac.in/pdf/econtent/International-Business-Unit-1-DrNeha-Yajurvedi.pdf>

Course Learning Outcomes (for Mapping with POs and PSOs)

On completion of the course the students should be able to

COs	CO Description	Cognitive Level
CO1	Recall the concepts of International Business and International Business Environment	K1,K2,K3
CO2	Analyze different theories of International Business	K1,K2,K3,K4
CO3	Explain the legal procedures involved in International business	K1,K2,K3
CO4	Explain the different types of economic integrations.	K1,K2,K3,K4
CO5	Identify the operations of MNCs through real case assessment	K1,K2,K3,K4

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	3	3	3	3	3	3	2	3	3	3	3	3	3
CO2	3	3	3	3	3	2	3	3	3	1	3	3	3
CO3	3	3	3	2	3	1	3	2	3	3	3	2	3
CO4	3	3	3	2	3	3	3	3	3	3	3	3	2
CO5	3	3	3	3	3	3	3	3	1	3	2	3	3

COURSE DESCRIPTORS

Title of the Course	Applied Data Analytics and Machine Learning	Hours/Week	03
Course Code	APECP35A	Credits	03
Category	Elective V	Year & Semester	II & III
Prerequisites	UG Commerce (Computer Applications)	Regulation	2024

Objectives of the course:

- To understand basics of data analysis in Python
- To interpret the data analysis pipeline via usage of NumPy and Pandas.
- To examine methods of working with textual and time series data
- To investigate machine learning techniques with Scikit-Learn
- To understand advanced machine learning techniques

UNITS	Contents	COs	Cognitive Levels
UNIT-I	UNIT I (12 hrs) Introduction to Data Analysis with Python Introduction to Data Analysis with Python: Data Analysis - Understanding Nature of Data - Data Analysis Process - Quantitative and Qualitative Data Analysis-Introduction to Python – PyPI, SciPy.Getting started with Python - Explore the first data set - The Jupyter notebook.	CO1	K1,K2,K3
UNIT-II	UNIT II (12 hrs) Working across the entire data analysis pipeline Working across the entire data analysis pipeline, - Getting, cleaning and manipulating the data - Numpy library – Ndarray - Basic Operation- Shape Manipulation - Array Manipulation - General Concepts - Pandas Library- Introduction to Pandas Data Structures - Index functionalities - Operations between Data Structures - Interacting with Databases.	CO2	K1,K2,K3, K4

UNIT-III	UNIT III (12 hrs) Working with textual and time-series data Working with textual data - Working with time-series data - Databases in Python - Statistical data analysis.	CO3	K1,K2,K3, K4
UNIT-IV	UNIT IV (12 hrs) Basics of machine learning with Scikit-learn Basics of machine learning with Scikit-learn - Introduction to machine learning -Fitting a first model - Cost functions and outliers - Linear regressions - Gradient descent - Feature engineering.	CO4	K1,K2,K3, K4
UNIT-V	UNIT V (12 hrs) Advanced machine learning techniques Advanced machine learning techniques: K-nearest neighbours - Logistic regressions - Decision trees and SVMs - Clustering and Dimensionality reduction - Introduction to deep learning.	CO5	K1,K2,K3, K4,K5

Recommended Text Books

1. Fabio Nelli (2018), “Python Data Analytics with Pandas,Numpy and Matplotlib”, 2nd Edition, Apress, New York.
2. Paul Barry, Shroff (2011), “Head First Python”, 1st Edition, O'Reilly Media, USA.
3. Mark Lutz, Shroff (2011), “Programming Python”, 4th Edition, O'Reilly Media, USA.

Reference Books

1. Wes McKinney, “Python for Data Analysis”, 2nd Edition, O'Reilly publication, USA.
2. Martin C Brown (2001), “Python the Complete Reference”, McGraw Hill, USA.
3. Mark Lutz, Shroff (2010), “Python Pocket Reference”, 3rd Edition, O'Reilly Media, 69 USA.
4. Ashok NamdevKamthane, Amit Ashok Kamthane (2018), “Problem Solving and Python Programming”, McGraw Hill Education Pvt. Ltd. Noida.

Website and e-learning source

1. <https://pandas.pydata.org/pandas-docs/version/1.4.4/pandas.pdf>
2. [https://mrcet.com/downloads/digital_notes/CSE/IV%20Year/MACHINE%20LEARNING\(R17A0534\).pdf](https://mrcet.com/downloads/digital_notes/CSE/IV%20Year/MACHINE%20LEARNING(R17A0534).pdf)

Course Learning Outcomes (for Mapping with POs and PSOs)

On completion of the course the students should be able to

COs	CO Description	Cognitive Level
CO1	Demonstrate data analysis with apt knowledge in foundational concepts of Python	K1,K2,K3
CO2	Demonstrate getting, cleaning and manipulation of data using NumPy and Pandas	K1,K2,K3,K4
CO3	Use Python for Statistical Data analysis	K1,K2,K3,K4
CO4	Use Scikit-Learn for advanced Data analysis	K1,K2,K3,K4
CO5	Explain advanced machine learning techniques	K1,K2,K3,K4,K5

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	3	3	3	3	2	3	2	2	3	2	3	3	2
CO2	3	3	3	3	2	3	2	2	3	1	3	3	3
CO3	3	3	3	3	2	3	2	2	3	3	3	2	3
CO4	3	3	3	3	2	3	2	2	3	2	3	3	3
CO5	3	3	3	3	2	3	2	2	3	1	3	3	3

COURSE DESCRIPTORS

Title of the Course	Python and R for Data Analytics	Hours/Week	03
Course Code	APECP35B	Credits	03
Category	Elective V	Year & Semester	II& III
Prerequisites	UG Commerce (Computer Applications)	Regulation	2024

Objectives of the course:

- To understand the basics of Python
- To learn Bio Python
- To understand the features of R
- To learn data handling
- To identify the use of bio conductor

UNITS	Contents	COs	Cognitive Levels
UNIT-I	UNIT I (12 hrs) Introduction to Python Installation of Python - Variables - Types - Strings - Jupiter notebooks - Objects - Functions - Control structures - Operators - User-Defined Functions - Data Structures - List, Tuple - Dictionary.	CO1	K1,K2,K3
UNIT-II	UNIT II (12 hrs) Numpy and Scipy Numpy library – Ndarray - Basic Operations - Conditions and Boolean Arrays - Shape Manipulation - Array Manipulation - General Concepts - Structured Arrays - Reading and Writing Array on Files - SciPy Library for Statistics: linalg sub package – Normality Correlation - t-Test- Chi-Test- ANOVA.	CO2	K1,K2,K3, K4
UNIT-III	UNIT III (12 hrs) R Programming Introduction to R - Installing R - Features of R - Reserved words - Operators, -Strings - Data types and operations - Basic Data types – Vectors - List, Matrices – Arrays - Factors - Data frames - Flow control - Decision making - Loop Control Statements - Loops.	CO3	K1,K2,K3, K4

UNIT-IV	UNIT IV (12 hrs) Visualization using R R as a Deluxe Calculator - Creating Objects and Assigning Values - Graphics: Simple Plotting - Advanced Plotting - Using Color in Plots - Using Subscripts and Superscripts in Graph Labels - Interactive Graphics - Saving Graphical Output - Loops.	CO4	K1,K2,K3, K4,K5
UNIT-V	UNIT V (12 hrs) Data Handling Feature selection models - Data Preprocessing - Normalization - Methods - Data reduction - Data sampling - Heat maps - Classification: Based on analogy - rules - probabilities - statistics and prediction with R.	CO5	K1,K2,K3, K4

Recommended Text Books

Books for study:

1. Fabio Nelli (2018), "Python Data Analytics with Pandas, Numpy and Matplotlib", 2nd Edition, Apress, New York.
2. Wes McKinney, "Python for Data Analysis", 2nd Edition, O'Reilly publication, USA.
3. Jeeva Jose (2018),"Beginner's Guide for Data Analysis using R Programming", Khanna Book Publishing Co. Ltd., New Delhi.
4. Norman Matloff (2011), "The Art of R programming - A tour of statistical software design", 1st Edition, No Starch Press, USA.

Reference Books

1. Mark Lutz (2009), "Learning Python", O'Reilly Media Publication, USA.
2. Martin C Brown (2001), "Python: The Complete Reference". McGraw-Hill Media, USA.
3. Gentleman R, Carey V.J, Huber W, Irizarry, RA, and Dudoit, S, "Bioinformatics and Computational Biology Solutions Using R and Bioconductor", Springer, New York.

Website and e-learning source

1. www.sthurlow.com/python/ 2. www.learnpython.org 3. www.codecademy.com/en/tracks/python

Course Learning Outcomes (for Mapping with POs and PSOs)

On completion of the course the students should be able to

COs	CO Description	Cognitive Level
CO1	Describe the basics of Python	K1,K2,K3
CO2	Explain the necessity for programming in biology	K1,K2,K3,K4
CO3	Apply R programming	K1,K2,K3,K4
CO4	Discuss Data handling	K1,K2,K3,K4,K5
CO5	Apply R in Phylogenetics	K1,K2,K3,K4

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	3	3	3	3	3	3	2	3	2	2	3	3	3
CO2	3	3	3	3	3	3	2	3	3	3	3	2	3
CO3	3	3	3	3	2	3	2	3	3	1	3	3	3
CO4	3	3	3	3	3	3	2	3	3	2	3	3	3
CO5	3	3	3	3	3	3	2	3	1	3	3	3	1

COURSE DESCRIPTORS

Title of the Course	Stock Market Operations	Hours/Week	03
Course Code	APSCP36	Credits	02
Category	Skill Enhancement - II	Year & Semester	II & III
Prerequisites	UG Commerce (Computer Applications)	Regulation	2024

Objectives of the course:

1. To get students acquainted with the nature of stock market
2. To learn the pattern of trading and settlement in stock market
3. To understand the process of online trading and meaning of basic concepts
4. To know and categorize the option contracts and its strategies
5. To observe the psychology of trader in the stock market

UNITS	Contents	COs	Cognitive Levels
UNIT-I	UNITI(9hrs) Introduction to Stock Market Capital and Stock Market –Stock Exchanges– NSE&BSE–Index – Types of Index –Demat Account & Trading Accounting–Brokerage and Taxation–Intraday Trading.	CO1	K1,K2,K3
UNIT-II	UNITII(9hrs) Trading & Settlement in stock market Patterns of Trading & Settlement – Speculations and its types – Brokerage – Settlement Procedures –National Securities Depository Ltd. (NSDL), Central Securities Depository Ltd.(CDSL)	CO2	K1,K2,K3
UNIT-III	UNITIII (9hrs) Online Trading Process Trading – Types of trading – Risk, Reward, Target, Stop Loss –Walk through of online trading–Lot Sizes Minimum Losses and Maximum Profits– Stop loss method to increase profits–Ledger Statement– Transaction History–Contract Notes	CO3	K1,K2,K3, K4

UNIT-IV	UNITIV (9hrs) Options Trading Concepts of Options–Call Option–Put Option–In-the-money, At the-money, Out-of-the-money– Option Valuation–Basic Option trading strategies.	CO4	K1,K2,K3, K4
UNIT-V	UNITV (9hrs) Trading Psychology News and Social Media–Attitude of a Trader–Wealth Creation through Trading –Successful trading in various market movements– Trading Routine	CO5	K1,K2,K3, K4,K5

Recommended Text Books

1. Prasanna Chandra, “Investment Analysis and Portfolio management”, Tata McGraw Hill, 3rdE dn.,2008.
2. Punithavathy Pandian, “Security analysis and Portfolio Management”, Vikas Publishing House Pvt. Ltd., Chennai,2021.
3. Securities Operations and Risk Management by National Institute of Securities Marker, 2023.

Reference Books

- 4.V.A. Avadhani, Investment and Securities Market in India, Himalaya PublishingHouse,10th edition,2017.
5. Ravi Puliani and Mahesh Puliani, Manual of SEBI, Bharat Law House,Delhi,2017.
- 6.NCFM-OptionsTradingStrategiesModulebook,NationalStockExchangeofIndiaLtd,

Website and e-learning source

www.stockmarket.com

Course Learning Outcomes (for Mapping with POs and PSOs)

On completion of the course the students should be able to

COs	CO Description	Cognitive Level
CO1	Explain the importance and nature of international flow of funds	K1,K2,K3
CO2	Analyze the fluctuations in exchange rate and impact on exchange markets	K1,K2,K3
CO3	Analyse the techniques of international investment decisions for building a better portfolio	K1,K2,K3,K4
CO4	Explain the flow of funds in the international banks	K1,K2,K3,K4
CO5	Examine various international financial market instruments	K1,K2,K3,K4,K5

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	3	3	3	3	3	3	3	3	2	3	3	3	2
CO2	3	3	2	3	3	3	3	3	3	1	3	3	3
CO3	3	3	3	3	3	3	3	3	3	3	3	2	3
CO4	3	3	3	3	3	3	3	2	3	3	3	3	3
CO5	3	3	3	3	3	3	3	3	3	1	3	3	3