



# **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 (2<sup>nd</sup> Cycle) with (CGPA of 3.24/4) 'A' Grade

**P.G. DEPARTMENT OF COMMERCE (CA)**

**B.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)**

## PREFACE

The curriculum of postgraduate commerce with computer applications has been designed to explain the concepts in various fields of finance, marketing, management, accounting, law, taxation, entrepreneurship, computer applications, Electronic commerce, web technology, digital marketing etc. The purpose of the outcome-based education is meant to provide an exposure to the fundamental aspects of commerce and business environment, keeping in mind the growing needs for higher education, employability, entrepreneurship and social responsibility. The periodical restructuring of the syllabi is carried out to fulfill the requirements of graduate attributes, qualification descriptors, programme learning outcomes and course outcomes. The outcome-based education enriches the curriculum to deliver the basic principles, synthetic strategies, mechanisms and application-oriented learning for the benefit of students. It also includes self-learning module, minor projects and industrial internship to enable students to get equipped for higher studies and employment. The programme also includes training to students for seminar presentation, preparation of internship reports, hands-on training in lab courses, skills to handle real business world situation, developing leadership qualities, organization and participation in the interdepartmental academic competitions. The elective papers provide a platform to strengthen the understanding of the core subjects. The outcome-based curriculum is intended to enrich the learning pedagogy to global standards. ICT enabled teaching-learning platforms are provided to students along with the interaction of international scientists. The seminars periodically delivered by industrialists, subject experts and academicians would certainly help the students to update with latest technology/trends in different fields of commerce. The exposure to the industrial internship and MoUs with industries can open an avenue for a start-up and its progress would be followed regularly. The OBE based evaluation

methods will reflect the true cognitive levels of the students as the curriculum is designed with course outcomes and cognitive level correlations as per BLOOM's Taxonomy.

In pursuit of the Higher Education Department Policy Note 2022-23 Demand 20, Section 1.4, Tamil Nādu State Council for Higher Education took initiative to revamp the curriculum. On 27 July 2022, a meeting was convened by the Member-Secretary Dr. S. Krishnasamy enlightening the need of the hour to restructure the curriculum of both Undergraduate and Post-graduate programmes based on the speeches at the Tamil Nādu Legislative Assembly Budget meeting by the Honourable Higher Education Minister Dr K. Ponmudy and Honourable Finance Minister Dr. P. Thiagarajan. At present there are three different modes of imparting education in most of the educational institutions throughout the globe. Outcome Based Education, Problem Based Education, and Project Based Education.

Briefly, it is aimed to restructure the curriculum as student-oriented, skill-based, and institution industry- interaction curriculum with the various courses under "Outcome Based Education with Problem Based Courses, Project Based Courses, and Industry Aligned Programmes" having revised Bloom's Taxonomy for evaluating students skills. Three domains:

(i)Cognitive Domain

(Lower levels: K1: Remembering ; K2: Understanding ; K3: Applying; Higher levels: K4: Analysing ; K5: Evaluating; K6: Creating)

(ii) Affective Domain

(iii) Psychomotor Domain

## **ABOUT THE COLLEGE**

The College was founded in the new millennium 2000 by the vision of late Shri.K.M.Govindarajan fondly known as Iyah, 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, Iyah 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 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 2<sup>nd</sup> 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.

## **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.

**ABOUT THE DEPARTMENT**

The Department is an ever-green favourite of students in the blazing effulgence of job prospects. Among the seven staff members, three are Ph.D holders and four are M.Phil. Two of them have been qualified in SET. The department has programmes at UG and PG levels which are the foremost choice of vast majority of students.

The staff members are regularly presenting papers at several national seminars and conferences, symposia and workshops. Two staff members are recognized as Guide supervisors for Ph.D course and four research scholars are pursuing their research course in the department.

The department maintains its own library to focus students' studies and attention on learning more through book reading.

The year of establishment of various programmes of our department are as follows:

<b>S.No</b>	<b>Courses</b>	<b>Establishment year</b>
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 programme, the students will be able to:

POs	Graduate Attributes	Statements
PO1	Disciplinary Knowledge	Acquire detailed knowledge and expertise in all the disciplines of the subject.
PO2	Communication Skills	Ability to express thoughts and ideas effectively in writing, listening and confidently Communicate with others using appropriate media
PO3	Critical Thinking	Students will develop aptitude Integrate skills of analysis, critiquing, application and creativity.
PO4	Analytical Reasoning	Familiarize to evaluate the reliability and relevance of evidence, collect, analyze and interpret data.
PO5	Problem Solving	Capacity to extrapolate the learned competencies to solve different kinds of non-familiar problems.
PO6	Employability and Entrepreneurial Skill	Equip the skills in current trends and future expectations for placements and be efficient entrepreneurs by accelerating qualities to facilitate startups in the competitive environment.
PO7	Individual and Team Leadership Skill	Capability to lead themselves and the team to achieve organizational goals and contribute significantly to society.
PO8	Multicultural Competence	Possess knowledge of the values and beliefs of multiple cultures and a global perspective.
PO 9	Moral and Ethical awareness/reasoning	Ability to embrace moral/ethical values in conducting one's life.
PO10	Lifelong Learning	Identify the need for skills necessary to be successful in future at personal development and demands of work place.

**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	2	2	2	3
PSO2	3	3	3	3	3	3	3	2	2	2
PSO3	3	3	3	3	3	3	2	2	3	3



# K.M.G. COLLEGE OF ARTS AND SCIENCE

## (AUTONOMOUS)

### Subject and Credit System- B.Com., (Computer Applications)

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

Semester	Part	Category	Course Code	Course Title	Ins.Hr s/ Week	Credit	Maximum Marks		
							Internal	External	Total
SEMESTER - I	I	Language	AULT10 / AULU10	General Tamil – I / Urdu - I	6	3	25	75	100
	II	English	AULE10	English – I	6	3	25	75	100
	III	Core – 1	AUCCP11	Financial Accounting I	5	5	25	75	100
	III	Core – 2	AUCCP12	Principles of Management	5	5	25	75	100
	III	Elective-I A Or Elective-I B	AUECP13 A	Programming in C (OR)	2	2	25	75	100
			AUECP13 B	Python Programming					
			AUEPCP13 A	Programming in C Lab	2	1	25	75	100
			AUEPCP13 B	Python Programming Lab					
	IV	Skill Enhancement - 1	AUSCP 14	Business Organization	2	2	25	75	100
Foundation Course		AUFCP 15	Fundamentals of Commerce	2	2	25	75	100	
Semester Total					30	23			
SEMESTER - II	I	Language	AULT20 / AULU 20	General Tamil – II / Urdu - II	6	3	25	75	100
	II	English	AULE20	English – II	6	3	25	75	100
	III	Core - 3	AUCCP21	Financial Accounting II	5	5	25	75	100
	III	Core – 4	AUCCP22	Business Laws	5	5	25	75	100
	III	Elective-II A Or Elective-II B	AUECP23A	Office Automation (OR)	2	2	25	75	100
			AUECP23B	Programming in C ++					
			AUEPCP23A	Office Automation Lab	2	1	25	75	100
			AUEPCP23B	Programming in C ++ lab					
	IV	Skill Enhancement - 2	AUSCP24	Industrial Laws	2	2	25	75	100
		Skill Enhancement -3	AUSCP25	Advertisement	2	2	25	75	100
Semester Total					30	23			
SEMESTER - III	I	Language	AULT30 / AULU 30	General Tamil – III / Urdu - III	6	3	25	75	100
	II	English	AULE30	English – III	6	3	25	75	100
	III	Core - 5	AUCCP31	Corporate Accounting – I	5	5	25	75	100
	III	Core -6	AUCCP32	Business Mathematics and statistics	5	5	25	75	100
	IV	Elective-III (Choose any one)	AUECP33A AUECP33B	Programming in Java (OR) Web technology (PHP)	2	2	25	75	100
			AUEPCP33A AUEPCP33B	Programming in Java lab (OR) Web technology (PHP) Lab	1	1	25	75	100
	IV	Skill Enhancement - 4	AUSCP34	Service Marketing	1	1	25	75	100
		Skill Enhancement -5	AUSCP35	Everyday Banking	2	2	25	75	100
		Compulsory	AUES30	Environmental Studies	2	2	25	75	100
	Semester Total					30	24		

Semester	Part	Category	Course Code	Course Title	Ins.Hr s/ Week	Credit	Maximum Marks		
							Internal	External	Total
SEMESTER - IV	I	Language	AULT40 / AULU 40	General Tamil – IV / Urdu - IV	6	3	25	75	100
	II	English	AULE40	English – IV	6	3	25	75	100
	III	Core -7	AUCCP41	Corporate Accounting II	5	5	25	75	100
	III	Core -8	AUCCP42	Company Law	5	5	25	75	100
	IV	Elective-IV (Choose any one)	AUECP43A	Relational Data base Management system	4	3	25	75	100
			AUECP43B	Introduction to Data Science					
	IV	Skill Enhancement Course -6	AUSCP44	Professional Skills for Corporate World	2	2	25	75	100
		Skill Enhancement Course -7	AUSCP45	Practices in Commerce	2	2	25	75	100
	Semester Total				30	23			
SEMESTER - V	III	Core -9	AUCCP51	Cost Accounting – I	5	4	25	75	100
	III	Core -10	AUCCP52	Banking Law & Practice	5	4	25	75	100
	III	Core -11	AUCCP53	Income Tax Law & Practice I	5	4	25	75	100
	III	Core Paper -12	AUCCP54	Auditing & Corporate Governance	5	4	25	75	100
	III	Discipline Specific Elective	AUECP55A AUECP55B	A. Financial Management / B. Indirect Taxation	4	3	25	75	100
			AUECP56A	Software Engineering (OR) Object oriented analysis and Design	2	2	25	75	100
			AUEPCP56A AUEPCP56B	Software Engineering UML Lab (OR) Object oriented analysis and Design - UML Lab	2	1	25	75	100
	IV	Compulsory	AUVE50	Value Education	2	2	25	75	100
		Compulsory	AUICP57	Summer Internship / Industrial Training	-	2	100	-	100
	Semester Total				30	26			
SEMESTER - VI	III	Core – 13	AUCCP61	Cost Accounting II	6	4	25	75	100
	III	Core – 14	AUCCP62	Management Accounting	6	4	25	75	100
	III	Core – 15	AUCCP63	Income Tax Law & Practice –II	6	4	25	75	100
	III	Discipline Specific Elective	AUECP64A AUECP64B	A. Entrepreneurial Development / Human Resource Management	5	3	25	75	100
			AUEPCP65A AUEPCP65B	R Language Lab (OR) Practical Tally Lab	5	3	25	75	100
	IV	Skill	AUPCCP66	General Awareness for Competitive Examination	2	2	25	75	100
		Compulsory	AUEA60	Extension Activity	-	1	100	-	100
	Semester Total				30	21			

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**Subject and Credit System- B.Com (CA)**  
(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	Semester-V	Semester-VI	Total Credits
<b>Part-I</b>	03	03	03	03	-	-	<b>12</b>
<b>Part-II</b>	03	03	03	03	-	-	<b>12</b>
<b>Part-III</b>	13	13	13	13	22	18	<b>92</b>
<b>Part-IV</b>	04	04	05	04	04	3	<b>24</b>
<b>Part-V</b>	-	-	-	-	-	-	-
<b>Total</b>	<b>23</b>	<b>23</b>	<b>24</b>	<b>23</b>	<b>26</b>	<b>21</b>	<b>140</b>

\*Part I, II and Part III components will be separately taken into account for CGPA calculation and classification for the under graduate programme and the other components. IV, V has to be completed during the duration of the programme as per the norms, to be eligible for obtaining the UG degree.

## COURSE DESCRIPTORS

<b>Title of the Course</b>	FINANCIAL ACCOUNTING I	<b>Hours/Week</b>	05
<b>Course Code</b>	AUCCP11	<b>Credits</b>	05
<b>Category</b>	Core-1	<b>Year &amp; Semester</b>	I & I
<b>Prerequisites</b>	Higher secondary commerce/computer applications	<b>Regulation</b>	2024

### Objectives of the course:

- To understand the basic accounting concepts and standards.
- To know the basis for calculating business profits.
- To familiarize with the accounting treatment of depreciation
- To learn the methods of calculating profit for single entry system.
- To gain knowledge on the accounting treatment of insurance claims.

UNITS	Contents	COs	Cognitive Levels
<b>UNIT-I</b>	<b>Fundamentals of Financial Accounting</b> Financial Accounting – Meaning, Definition, Objectives, Basic Accounting Concepts and Conventions - Journal, Ledger Accounts – Subsidiary Books — Trial Balance - Classification of Errors – Rectification of Errors – Preparation of Suspense Account – Need and Preparation.	CO1	K1 K2 K3
<b>UNIT-II</b>	<b>Final Accounts</b> Final Accounts of Sole Trading Concern- Capital and Revenue Expenditure and Receipts – Preparation of Trading, Profit and Loss Account and Balance Sheet with Adjustments- Bank Reconciliation Statement.	CO1 CO2	K1 K2 K3 K4
<b>UNIT-III</b>	<b>Depreciation and Bills of Exchange</b> <b>Depreciation</b> - Meaning – Objectives – Accounting Treatments - Types - Straight Line Method – Diminishing Balance method – Conversion method - Units of Production Method – Cost Model vs Revaluation <b>Bills of Exchange</b> – Definition – Specimens – Discounting of Bills – Endorsement of Bill – Collection – Noting – Renewal – Retirement of Bill under rebate.	CO3	K1 K2 K3 K4

<b>UNIT-IV</b>	<b>Accounting from Incomplete Records – Single Entry System</b> Incomplete Records - Meaning and Features - Limitations - Difference between Incomplete Records and Double Entry System - Methods of Calculation of Profit - Statement of Affairs Method – Preparation of final statements by Conversion method.	CO4	K1 K2 K3
<b>UNIT-V</b>	<b>Royalty and Insurance Claims</b> Meaning – Minimum Rent – Short Working – (Excluding Recoupment of Short Working) – Lessor and Lessee – Sublease – Accounting Treatment. Insurance Claims –Calculation of Claim Amount-Average clause (Loss of Stock only)	CO5	K1 K2 K3 K4

### THEORY – 20%, PROBLEMS – 80%

#### Recommended Text Books

1. T.S. Reddy & Murthy Financial Accounting, Margham Publications Chennai.

#### Reference Books

1. Dr. Arulanandan and Raman: Advanced Accountancy, Himalaya Publications, Mumbai.
2. Tulsian , Advanced Accounting, Tata McGraw Hills, Noida.
3. Charumathi and Vinayagam, Financial Accounting, S.Chand and Sons, New Delhi.
4. Goyal and Tiwari, Financial Accounting, Taxmann Publications, New Delhi.
5. Robert N Anthony, David Hawkins, Kenneth A. Merchant, Accounting: Text and Cases. McGraw-Hill Education, Noida.
6. S.N. Maheshwari, Financial Accounting, Vikas Publications, Noida.
7. Shukla Grewal and Gupta, “Advanced Accounts”, volume 1, S. Chand and Sons, New Delhi.
8. Radhaswamy and R.L. Gupta: Advanced Accounting, Sultan Chand, New Delhi.
9. R.L. Gupta and V.K. Gupta, “Financial Accounting”, Sultan Chand, New Delhi

#### Website and e-learning source

- 1) <https://www.slideshare.net/mcsharma1/accounting-for-depreciation-1>
- 2) <https://www.slideshare.net/ramusakha/basics-of-financial-accounting>
- 3) <https://www.accountingtools.com/articles/what-is-a-single-entry-system.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	Remember the concept of rectification of errors and Bank reconciliation statements	K1,K2,K3
CO2	Apply the knowledge in preparing detailed accounts of sole trading concerns	K1,K2,K3,K4
CO3	Analyze the various methods of providing depreciation	K1,K2,K3,K4
CO4	Evaluate the methods of calculation of profit	K1,K2,K3
CO5	Determine the royalty accounting treatment and claims from insurance companies in case of loss of stock.	K1,K2,K3,K4

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

**COURSE DESCRIPTORS**

<b>Title of the Course</b>	PRINCIPLES OF MANAGEMENT	<b>Hours/Week</b>	05
<b>Course Code</b>	AUCC12	<b>Credits</b>	05
<b>Category</b>	Core-II	<b>Year &amp; Semester</b>	I & I
<b>Prerequisites</b>	Higher secondary commerce/computer applications	<b>Regulation</b>	2024

**Objectives of the course:**

- To understand the basic management concepts and functions.
- To know the various techniques of planning and decision making
- To familiarize with the concepts of organisation structure
- To gain knowledge about the various components of staffing
- To enable the students in understanding the control techniques of management

UNITS	Contents	COs	Cognitive Levels
<b>UNIT-I</b>	<b>Introduction to Management</b> Meaning- Definitions – Nature and Scope - Levels of Management – Importance - Management Vs. Administration – Management: Science or Art –Evolution of Management Thoughts – F. W. Taylor, Henry Fayol, Peter F. Drucker, Elton Mayo - Functions of Management - Managers – Qualification – Duties & Responsibilities.	CO1	K1 K2 K3
<b>UNIT-II</b>	<b>Planning</b> Planning – Meaning – Definitions – Nature – Scope and Functions – Importance and Elements of Planning – Types – Planning Process - Tools and Techniques of Planning – Management by Objective (MBO). Decision Making: Meaning – Characteristics – Types - Steps in Decision Making – Forecasting	CO1 CO2	K1 K2 K3 K4
<b>UNIT-III</b>	<b>Organizing</b> Meaning - Definitions - Nature and Scope – Characteristics – Importance – Types - Formal and Informal Organization – Organization Chart – Organization Structure: Meaning and Types - Departmentalization– Authority and Responsibility – Centralization and Decentralization – Span of Management.	CO3	K1 K2 K3 K5

<b>UNIT-IV</b>	<b>Staffing</b> Introduction - Concept of Staffing- Staffing Process – Recruitment – Sources of Recruitment – Modern Recruitment Methods - Selection Procedure – Test- Interview– Training: Need - Types– Promotion – Management Games – Performance Appraisal - Meaning and Methods – 360 degree Performance Appraisal – Work from Home - Managing Work from Home [WFH].	CO4	K1 K2 K3 K4 K5
<b>UNIT-V</b>	<b>Directing</b> Motivation –Meaning - Theories – Communication – Types - Barriers to Communications – Measures to Overcome the Barriers. Leadership – Nature - Types and Theories of Leadership – Styles of Leadership - Qualities of a Good Leader – Successful Women Leaders – Challenges faced by women in workforce - Supervision.  <b>Co-ordination and Control</b> Co-ordination – Meaning - Techniques of Co-ordination. Control - Characteristics - Importance – Stages in the Control Process - Requisites of Effective Control and Controlling Techniques – Management by Exception [MBE] - Trends and Challenges of Management.	CO5	K1 K2 K3 K5

**Recommended Text Books**

1. Gupta.C.B, -Principles of Management-L.M. Prasad, S.Chand& Sons Co. Ltd, New Delhi.
2. Dinkar Pagare, Principles of Management, Sultan Chand & Sons Publications, New Delhi.
3. P.C.Tripathi & P.N Reddy, Principles of Management. Tata McGraw, Hill, Noida.
4. L.M. Prasad, Principles of Management, S.Chand & Sons Co. Ltd, New Delhi
5. R.K. Sharma, Shashi K. Gupta, Rahul Sharma, Business Management, Kalyani Publications, New Delhi.

**Reference Books**

1. K Sundhar, Principles Of Management, Vijay Nichole Imprints Limited, Chennai
2. Harold Koontz, Heinz Weirich, Essentials of Management, McGraw Hill, Sultan Chand and Sons, New Delhi.
3. Griffffin, Management principles and applications, Cengage learning, India.
4. H.Mintzberg - The Nature of Managerial Work, Harper & Row, New York.
5. Eccles, R. G. & Nohria, N. Beyond the Hype: Rediscovering the Essence of Management. Boston The Harvard Business School Press, India.



**Website and e-learning source**

1. <http://www.universityofcalicut.info/syl1/management>
2. <https://www.managementstudyguide.com/manpower-planning.htm>
3. <https://www.businessmanagementideas.com/notes/managementnotes/coordination/coordination /21392>

**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 the importance of principles of management.	K1,K2,K3
CO2	Paraphrase the importance of planning and decision making in an organization.	K1,K2,K3,K4
CO3	Comprehend the concept of various authorizes and responsibilities of an organization.	K1,K2,K3,K5
CO4	Enumerate the various methods of Performance appraisal	K1,K2,K3,K4,K5
CO5	Demonstrate the notion of directing, co-coordination and control in the management.	K1,K2,K3,K5

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

**COURSE DESCRIPTORS**

<b>Title of the Course</b>	PROGRAMMING IN C	<b>Hours/Week</b>	02
<b>Course Code</b>	AUECP13A	<b>Credits</b>	02
<b>Category</b>	Elective-I	<b>Year &amp; Semester</b>	I & I
<b>Prerequisites</b>	Higher secondary commerce/computer applications	<b>Regulation</b>	2024

**Objectives of the course:**

- Describe the core syntax and semantics of C programming language.
- Discover the need for working with the strings and functions.
- Illustrate the process of structuring the data using matrix, struct
- Solve the Parameter Passing using Functions.
- Create a Pointer and Structures and Union programs.

UNITS	Contents	COs	Cognitive Levels
<b>UNIT-I</b>	Introduction to C Language: C Language Introduction-Features of C Language-Benefits of C over other languages-Compilation of C Program-First Program in CPre-processor in CPre-processor directives	CO1	K1,K2
<b>UNIT-II</b>	Variables, Data Types & Operators: Variables and Keywords in C-Scope rules in C - Data Types in C-Operators & Its Types - Typecasting in C.	CO2	K1,K2,K3, K4
<b>UNIT-III</b>	Control Flow Statements: Decision Making Statements - Switch Statement in C-C Loops & Control Structure Practice problems- Continue Statement, Break Statement Array & String Handling in C:Arrays in C-Strings in C	CO2 CO3	K1,K2,K3, K4
<b>UNIT-IV</b>	Multidimensional Arrays in C - String functions in C- Practice problems Functions in C: Function Prototype - Parameter Passing Techniques in C- Storage Classes in C-Recursion Concept –Functions in CPractice problems.	CO2 CO3 CO4	K1,K2,K3
<b>UNIT-V</b>	Pointers, Structures, and Unions: Pointers in C – Structures - Union - Enumeration (or enum) in C - Pointer vs Array in C – C application programs (Sorting, Matrix manipulations, student's mark list preparation)	CO5	K1,K2,K3 K4,K5,K6

**Text Books:**

1. E. Balaguruswamy, "Programming in ANSI C", 8th Edition, 2019, McGraw Hill Education, ISBN:978-93-5316-513-0.
2. Pradip Dey, Manas Ghosh, "Programming in C", 2nd Edition, 2018, Oxford University Press, ISBN: 978-01-9949-147-6.
3. Kernighan B.W and Dennis M. Ritchie, "The C Programming Language", 2<sup>nd</sup> Edition, 2015, Pearson Education India, ISBN: 978-93-3254-944-9

**Reference Books**

1. Yashavant P. Kanetkar, "Let Us C", 16th Edition, 2019, BPB Publications, ISBN: 978- 93-8728-449-4.
2. Jacqueline A Jones and Keith Harrow, "Problem Solving with C", Pearson Education. ISBN: 978-93-325-3800-9.
3. Dr. Guruprasad Nagraj, "C Programming for Problem Solving", Himalaya Publishing House. ISBN-978-93-5299-361-1.

**Website and e-learning source**

1. <http://elearning.vtu.ac.in/econtent/courses/video/BS/14CPL16.html>
2. <https://nptel.ac.in/courses/106/105/106105171>

**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 concept of Control Structures to solve any given problem.	K1,K2
CO2	Apply the concept of single and multi-dimensional arrays to solve problems related to searching, sorting and matrix operations.	K1,K2,K3,K4
CO3	Apply the concept of Strings for writing programs related to character array.	K1,K2,K3,K4
CO4	Write programs using concept of user defined and recursive functions.	K1,K2,K3
CO5	Apply concept of structures to write programs.	K1,K2,K3K4,K5,K6

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

## FIRST YEAR – SEMESTER – I

## COURSE DESCRIPTORS

<b>Title of the Course</b>	Programming in C Lab	<b>Hours/Week</b>	02
<b>Course Code</b>	AUEPCP13A	<b>Credits</b>	01
<b>Category</b>	Elective-I	<b>Year &amp; Semester</b>	I & I
<b>Prerequisites</b>	Higher secondary commerce/computer applications	<b>Regulation</b>	2024

## Programming in C Lab

**Learning Objectives:** (for teachers: what they have to do in the class/lab/field)

- Understand problem statements and identify appropriate solutions.
- Demonstrate the use of IDE and C Compiler.
- Develop programs using C Programming Language.
- Explain about equations.
- Compare to the program grade wise using C Program.

## List of Programs

1. Write a C program to find roots of a Quadratic equation.
2. Write a C program to find the total no. of digits and the sum of individual digits of a positive integer.
3. Write a C program to generate the Fibonacci sequence of first N numbers.
4. Write a C program to sum the series  $S=1 - x + (x^2/2!) - (x^3/3!) + \dots - (x^n/n!)$
5. Write a C program to arrange the elements of an integer array using Bubble Sort algorithm.
6. Write a C program to input two matrices and perform matrix multiplication on them
7. Write a C program to check whether the given string is palindrome or not without using Library functions.
8. Write a C program to count the number of lines, words and characters in a given text.

9. Write a C program to generate Prime numbers in a given range using user defined function.
10. Write a C program to find factorial of a given number using recursive function.
11. Write a C program to maintain a record of n student details using an array of structures with four fields - Roll number, Name, Marks and Grade. Calculate the Grade according to the following conditions.

Marks Grade

>=80 A

>=60 B

>=50 C

>=40 D

<40 E

Print the details of the student, given the student Roll number as input.

Extended Professional Component	Questions related to the above topics, from various competitive examinations UPSC / TRB / NET / UGC –CSIR / GATE / TNPSC / others to be solved (To be discussed during the Tutorial hour)
Skills acquired from the course	Knowledge, Problem Solving, Analytical ability, Professional Competency, Professional Communication and Transferrable Skill.

**Text Books:**

1.E. Balaguruswamy, “Programming in ANSI C”, 8th Edition, 2019, McGraw Hill Education, ISBN:978-93-5316-513-0.

**Reference Books:**

1. Pradip Dey, Manas Ghosh, “Programming in C”, 2nd Edition, 2018, Oxford University Press, ISBN: 978-01-9949-147-6.
2. Kernighan B.W and Dennis M. Ritchie, “The C Programming Language”, 2nd Edition, 2015, Pearson Education India, ISBN: 978-93-3254-944-9.
3. Yashavant P. Kanetkar, “Let Us C”, 16th Edition, 2019, BPB Publications, ISBN: 978-93-8728-449-4

4. Jacqueline A Jones and Keith Harrow, “Problem Solving with C”, Pearson Education.  
ISBN: 978-93-325-3800-9.
5. Dr. Guruprasad Nagraj, “C Programming for Problem Solving”, Himalaya Publishing House. ISBN-978-93-5299-361-1.

**Weblinks and Video Lectures (e-Resources):**

1. <http://elearning.vtu.ac.in/econtent/courses/video/BS/14CPL16.html>
2. <https://nptel.ac.in/courses/106/105/106105171/>

**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 concept of Control Structures to solve any given problem.	K1,k2,K3
CO2	Apply the concept of single and multi-dimensional arrays to solve problems related to searching, sorting and matrix operations.	K1,K2,K3,K4
CO3	Apply the concept of Strings for writing programs related to character array.	K1,K2,K3,K4
CO4	Write programs using concept of user defined and recursive functions.	K1,K2,K3,K4
CO5	Apply concept of structures to write programs.	K1,K2,K3,K4,K5,K6

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

## COURSE DESCRIPTORS

<b>Title of the Course</b>	PYTHON PROGRAMMING	<b>Hours/Week</b>	02
<b>Course Code</b>	AUECP13B	<b>Credits</b>	02
<b>Category</b>	Elective-I	<b>Year &amp; Semester</b>	I & I
<b>Prerequisites</b>	Higher secondary commerce/computer applications	<b>Regulation</b>	2024

### Objectives of the course:

- Describe the core syntax and semantics of Python programming language.
- Discover the need for working with the strings and functions.
- Illustrate the process of structuring the data using lists, dictionaries, tuples and sets.
- Understand the usage of packages and Dictionaries
- Compare to the Set Data type with Text Files.

UNITS	Contents	COs	Cognitive Levels
<b>UNIT-I</b>	<b>Introduction:</b> Computer algorithms - Computer Hardware- Computer Software - Python programming language - Literals - Variables and Identifiers - Operators - Expressions and Data types, Input / output	CO1	K1,K2,K3
<b>UNIT-II</b>	<b>Control Structures:</b> Boolean Expressions - Selection Control – If Statement- Indentation in Python- Multi-Way Selection - Iterative Control- While Statement- Infinite loops- Definite vs. Indefinite Loops- Boolean Flag. String, List and Dictionary, Manipulations Building blocks of python programs, Understanding and using ranges.	CO1 CO2	K1,K2,K3, K4
<b>UNIT-III</b>	<b>Functions:</b> Program Routines - Defining Functions - More on Functions: Calling Value-Returning Functions- Calling Non - Value-Returning Functions- Parameter Passing – Keyword Arguments in Python - Default Arguments in Python-Variable Scope. Recursion: Recursive Functions	CO2	K1,K2,K3, K4
<b>UNIT-IV</b>	<b>Objects and their use:</b> Software Objects - Turtle Graphics – Turtle attributes - Modular Design: Modules – Top - Down Design - Python Modules	CO3	K1,K2,K3
<b>UNIT-V</b>	<b>Dictionaries and Sets:</b> Dictionary type in Python - Set Data type. Text Files: Opening, reading and writing text files – Exception Handling	CO4	K1,K2,K3, K4

**Text Books:**

1. Charles Dierbach, “Introduction to Computer Science using Python – A computational Problem-solving Focus”, Wiley India Edition, 2015.
2. Wesley J. Chun, “Core Python Applications Programming”, 3rd Edition , Pearson Education, 2016
3. Mark Lutz, “Learning Python Powerful Object Oriented Programming”, O’reilly Media 2018, 5th Edition.

**Reference Books**

1. Timothy A. Budd, “Exploring Python”, Tata McGraw Hill Education Private Limited 2011, 1<sup>st</sup> Edition.
2. John Zelle, “Python Programming: An Introduction to Computer Science”, Second edition, Course Technology Cengage Learning Publications, 2013, ISBN 978- 1590282410
3. Michel Dawson, “Python Programming for Absolute Beginners” , Third Edition, Course Technology Cengage Learning Publications, 2013, ISBN 978- 1435455009

**Website and e-learning source**

1. [https://onlinecourses.swayam2.ac.in/cec22\\_cs20/preview](https://onlinecourses.swayam2.ac.in/cec22_cs20/preview)

**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	Develop and execute simple Python programs	K1,K2,K3
CO2	Write simple Python using conditionals and looping for solving problems	K1,K2,K3
CO3	Decompose a Python program into functions	K1,K2,K3,K4
CO4	Represent compound data using Python lists, tuples, dictionaries etc.,	K1,K2,K3,K4
CO5	Differentiation Dictionaries & Set	K1,K2,K3

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



## COURSE DESCRIPTORS

<b>Title of the Course</b>	PYTHON PROGRAMMING LAB	<b>Hours/Week</b>	02
<b>Course Code</b>	AUEPCP13B	<b>Credits</b>	01
<b>Category</b>	Elective-I	<b>Year &amp; Semester</b>	I & I
<b>Prerequisites</b>	Higher secondary commerce/computer applications	<b>Regulation</b>	2024

### Python Programming Lab

#### Learning Objectives: (for teachers: what they have to do in the class/lab/field)

- Acquire programming skills in core Python.
- Acquire Object-oriented programming skills in Python.
- Develop the skill of designing graphical-user interfaces (GUI) in Python.
- Develop the ability to write database applications in Python.
- Acquire Python programming skills to move into specific branches

#### List of Programs:

1. Program to convert the given temperature from Fahrenheit to Celsius and vice versa depending upon user's choice.
2. Write a Python program to construct the following pattern, using a nested loop
 

```

      *
      **
      ***
      ****
      *****
      *****
      *****
      ****
      ***
      **
      *
```
3. Program to calculate total marks, percentage and grade of a student. Marks obtained in each of the five subjects are to be input by user. Assign grades according to the following criteria:
 

Grade A: Percentage $\geq 80$	Grade B: Percentage $\geq 70$ and $< 80$
Grade C: Percentage $\geq 60$ and $< 70$	Grade D: Percentage $\geq 40$ and $< 60$
Grade E: Percentage $< 40$	
4. Program, to find the area of rectangle, square, circle and triangle by accepting suitable input parameters from user.
5. Write a Python script that prints prime numbers less than 20.
6. Program to find factorial of the given number using recursive function.
7. Write a Python program to count the number of even and odd numbers from array of N numbers.
8. Write a Python class to reverse a string word by word.
9. Read a file content and copy only the contents at odd lines into a new file.
10. Create a Turtle graphics window with specific size.

<b>Extended Professional Component</b>	Questions related to the above topics, from various competitive examinations UPSC / TRB / NET / UGC –CSIR / GATE / TNPSC / others to be solved (To be discussed during the Tutorial hour)
<b>Skills acquired from the course</b>	Knowledge, Problem Solving, Analytical ability, Professional Competency, Professional Communication and Transferrable Skill

### Learning Resources:

### Recommended Texts

1. Charles Dierbach, “Introduction to Computer Science using Python - A computational Problem-solving Focus”, Wiley India Edition, 2015.
2. Wesley J. Chun, “Core Python Applications Programming”, 3rd Edition , Pearson Education, 2016

### Reference Books

1. Mark Lutz, “Learning Python Powerful Object Oriented Programming”, O’reilly Media 2018, 5th Edition.
2. Timothy A. Budd, “Exploring Python”, Tata McGraw Hill Education Private Limited 2011, 1 st Edition.
3. John Zelle, “Python Programming: An Introduction to Computer Science”, Second edition, Course Technology Cengage Learning Publications, 2013, ISBN 978-1590282410
4. Michel Dawson, “Python Programming for Absolute Beginners” , Third Edition, Course Technology Cengage Learning Publications, 2013, ISBN 978-1435455009

### Course Learning Outcomes (for Mapping with POs and PSOs)

On completion of the course the students should be able to

COs	CO Description (for students: To know what they are going to learn)	COGNITIVE LEVELS
CO1	To understand the problem solving approaches.	K1,K2,K3
CO2	To learn the basic programming constructs in Python.	K1,K2,K3,K4
CO3	To practice various computing strategies for Python-based solutions to real world problems.	K1,K2,K3
CO4	To use Python data structures - lists, tuples, dictionaries.	K1,K2,K3,K4
CO5	Can able to develop simple projects based on Python.	K1,K2,K3,K4,k5,k6

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

## COURSE DESCRIPTORS

<b>Title of the Course</b>	BUSINESS ORGANISATION	<b>Hours/Week</b>	02
<b>Course Code</b>	AUSCP14	<b>Credits</b>	02
<b>Category</b>	Skilled Enhancement Course I	<b>Year &amp; Semester</b>	I & I
<b>Prerequisites</b>	Higher secondary commerce/computer applications	<b>Regulation</b>	2024

### Objectives of the course:

- Understand business, profession, organization, social responsibilities, and business ethics.
- Explore business forms, distinguish public and private sectors.
- Comprehend industry location factors, analyze large-scale operation advantages.
- Familiarize with stock exchanges, understand business combinations.
- Understand trade associations and chambers of commerce in India.

UNITS	Contents	COs	Cognitive Levels
<b>UNIT-I</b>	Business - Meaning and types - Profession - meaning and importance of business Organization - Social Responsibilities of Business - Business Ethics.	CO1	K1 K2 K3
<b>UNIT-II</b>	Forms of Business organization - Sole trader - Partnership - Joint Hindu Family - Joint Stock Companies - Co-operative Societies - Public Utilities and Public Enterprises - Public Sector vs. Private Sector.	CO1 CO2	K1 K2 K3
<b>UNIT-III</b>	Location of industry - Factors influencing location - size of industry - optimum firm - advantages of large - scale of operation - limitation of small scale of operation - industrial estates - District Industries Centers.	CO3	K1 K2 K3
<b>UNIT-IV</b>	Stock Exchange - Function - Types - Working - Regulation of Stock Exchanges in India - Business Combination - Causes - Types - Effects of Combination in India.	CO4	K1 K2 K4
<b>UNIT-V</b>	Trade Association - Chamber of Commerce - Functions – Objectives - Working in India	CO5	K1 K2 K3

**Recommended Text Books**

1. C.B. Gupta , Business organization .2022. Sultan Chand & Sons, New Delhi.

**Reference Books**

1. Prakash & Jagedesh, Business organization & Management, Kitab Mahal Publishers (1997).
2. Dinkar Pagare, Business Organisation and Management, Sultan Chand & Sons New Delhi.
3. Vasudevan & Radhasivam, Business Organization, S. Chand Publisher.

**Website and e-learning source**

1. <https://www.vedantu.com/commerce/forms-of-business-organizations>
2. <https://ncert.nic.in/textbook/pdf/kebs102.pdf>
3. <https://www.teachmint.com/tfile/studymaterial/b-com/BusinessOrganization / Chapter1/46db05e8-ee83-497e-aa56-573a1388f80e>

**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	Differentiate business types, evaluate business organization's importance, analyze ethical considerations in business.	K1,K2,K3
CO2	Compare forms of business organizations; assess public and private sector advantages and disadvantages.	K1,K2,K3
CO3	Analyze industry location factors, evaluate advantages of large-scale operations, assess industrial estates and district industries centers.	K1,K2,K3
CO4	Explain stock exchange functions and regulation; analyze business combinations, causes, types, and effects.	K1,K2,K4
CO5	Discuss Trade Associations and chambers of commerce functions and objectives, evaluate their significance in promoting trade and commerce in India.	K1,K2,K3

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

## COURSE DESCRIPTORS

<b>Title of the Course</b>	FUNDAMENTALS OF COMMERCE	<b>Hours/Week</b>	02
<b>Course Code</b>	AUFCP15	<b>Credits</b>	02
<b>Category</b>	Foundation Course I	<b>Year &amp; Semester</b>	I & I
<b>Prerequisites</b>	Higher secondary commerce/computer applications	<b>Regulation</b>	2024

### Objectives of the course:

- Understand the meaning of Commerce and Industry
- Familiarize with Various Accounting methods.
- Explore about Market and Marketing
- Understand the various Acts prevailing in India
- Gain knowledge about Taxation and Filing of Income Tax.

UNITS	Contents	COs	Cognitive Levels
UNIT-I	Commerce - Introduction: Definition of Commerce - Importance – Meaning of Barter system - Business – Industry - Trade – Hindrances of Trade - Branches of Commerce.	CO1	K1 K2
UNIT-II	Accounting – Introduction: Bookkeeping – Meaning - Definition- Objectives - Accounting – Meaning Definition – objectives – Branches of Accounting - Financial Accounting – Cost Accounting - Management Accounting - its features and Differences.	CO2	K1 K2 K3 K4
UNIT-III	Introduction to Marketing: Definition of Market – Classification of Markets – Marketing – Meaning and Definition- Characteristics - Difference Between Market and Marketing – Approaches to Study of Marketing.	CO3	K1 K2 K3 K4
UNIT-IV	Introduction to Legal aspects of Business – Meaning of: Indian Contract Act 1872- Negotiable Instruments Act 1881 - Sale of Goods Act 1930- Partnership Act 1932 - Banking Regulation Act 1948 - Income Tax Act 1961 – Insolvency and Bankruptcy Code 2016 – GST Act 2017 - Anti Money Laundering Act 2020.	CO4	K1 K2 K3

<b>UNIT-V</b>	Tax Return Filing: Meaning and Types of Taxation – Registration of GST- Types of Returns - Filing of Income Tax Return- Filing of GST return - Slab rates.	CO5	K1 K2 K3 K5
<b>Recommended Text Books</b> <ol style="list-style-type: none"> <li>1. S.P.Jain and K.L Narang 2023, Financial Accounting-I , Kalyani Publishers, New Delhi</li> <li>2. N.D .Kapoor, Mercantile Law, Sultan Chand &amp; Sons, New Delhi.</li> <li>3. Dr. L. Natarajan, Margham Publications, Chennai.</li> </ol>			
<b>Reference Books</b> <ol style="list-style-type: none"> <li>1. Hariharan N, Income Tax Law &amp; Practice, Vijay Nicole Imprints Pvt. Ltd.Chennai.</li> <li>2. R.S.N. Pillai And Bagavathi, Business Law , S. Chand Publishing.</li> <li>3. T. Srinivasan – Income Tax &amp; Practice –Vijay Nicole Imprints Pvt. Limited,Chennai.</li> <li>4. T.S. Reddy &amp; Dr Y. Hariprasad Reddy, Management Accounting. Margham Publications, Chennai.</li> </ol>			
<b>Website and e-learning source</b> <ol style="list-style-type: none"> <li>1. <a href="https://www.incometaxmanagement.com/Direct-Taxes/AY-2021-22/assessment/1- assessment-of-an-individual.html">https://www.incometaxmanagement.com/Direct-Taxes/AY-2021-22/assessment/1- assessment-of-an-individual.html</a></li> <li>2. <a href="https://dea.gov.in/sites/default/files/moneylaunderingact.pdf">https://dea.gov.in/sites/default/files/moneylaunderingact.pdf</a></li> <li>3. <a href="https://www.mca.gov.in/Ministry/pdf/TheInsolvencyandBankruptcyofIndia.pdf">https://www.mca.gov.in/Ministry/pdf/TheInsolvencyandBankruptcyofIndia.pdf</a></li> </ol>			

**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	To make the students familiar with the concepts of Commerce and Industry.	K1,K2
CO2	To encourage and motivate the students for the Accounting Education.	K1,K2,K3,K4
CO3	To Analyze the Various classification of Markets and Marketing.	K1,K2,K3,K4
CO4	To make the students aware towards the various commercial Laws.	K1,K2,K3
CO5	To aware the types of Taxation and slab rates.	K1,K2,K3,K5

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

## COURSE DESCRIPTORS

<b>Title of the Course</b>	FINANCIAL ACCOUNTING II	<b>Hours/Week</b>	05
<b>Course Code</b>	AUCCP21	<b>Credits</b>	05
<b>Category</b>	Core-III	<b>Year &amp; Semester</b>	I & II
<b>Prerequisites</b>	Higher secondary commerce/computer applications	<b>Regulation</b>	2024

### Objectives of the course:

- The students are able to prepare different kinds of accounts such higher purchase and Installments System.
- To understand the allocation of expenses under departmental accounts
- To gain an understanding about partnership accounts relating to Admission and retirement
- To provide knowledge to the learners regarding Partnership Accounts relating to dissolution of firm
- To know the requirements of international accounting standards

UNITS	Contents	COs	Cognitive Levels
<b>UNIT-I</b>	<b>Hire Purchase and Installment System (15hr)</b> Hire Purchase System – Accounting Treatment – Calculation of Interest - Default and Repossession - Hire Purchase Trading Account - Installment System - Calculation of Profit	CO1	K1 K2 K3 K4
<b>UNIT-II</b>	<b>Branch and Departmental Accounts (15hr)</b> Branch – Dependent Branches: Accounting Aspects – Debtors system - Stock and Debtors system – Distinction between Wholesale Profit and Retail Profit – Independent Branches (Foreign Branches excluded) - Departmental Accounts: Basis of Allocation of Expenses – Inter-Departmental Transfer at Cost or Selling Price.	CO2	K1 K2 K3 K4
<b>UNIT-III</b>	<b>Partnership Accounts – I (15hr)</b> Partnership Accounts: – Admission of a Partner – Treatment of Goodwill - Calculation of Hidden Goodwill – Retirement of a Partner – Death of a Partner.	CO3	K1 K2 K3
<b>UNIT-IV</b>	<b>Partnership Accounts – II (15hr)</b> Dissolution of Partnership - Methods – Settlement of Accounts Regarding Losses and Assets – Realization account – Treatment of Goodwill – Preparation of Balance Sheet - One or more Partners insolvent – All Partners insolvent – Application of Garner Vs Murray Theory – Accounting Treatment – Piecemeal Distribution – Surplus Capital Method – Maximum Loss Method.	CO4	K1 K2 K3

<b>UNIT-V</b>	<b>Accounting Standards for financial reporting (Theory only) (15<sub>hr</sub>)</b> Objectives and Uses of Financial Statements for Users-Role of Accounting Standards - Development of Accounting Standards in India Role of IFRS- IFRS Adoption vs Convergence Implementation Plan in India- Ind AS- An Introduction - Difference between IndAS and IFRS.	CO5	K1 K2 K3
<b>THEORY – 20%, PROBLEMS – 80%.</b>			
<b>Recommended Text Books</b> 1 T.S. Reddy& A. Murthy, Financial Accounting, Margam Publishers, Chennai.			
<b>Reference Books</b> 1 Dr. S.N. Maheswari: Financial Accounting, Vikas Publications, Noida. 2 Dr. Venkataraman& others (7 lecturers): Financial Accounting, VBH, Chennai. 3 Dr. Arulanandan and Raman: Advanced Accountancy, Himalaya publications, Mumbai. 4 Tulsian , Advanced Accounting, Tata MC. Graw hills, India. 5 Charumathi and Vinayagam, Financial Accounting, S.Chand and sons, NewDelhi. 6 Radhaswamy and R.L. Gupta: Advanced Accounting, Sultan Chand, New Delhi. 7 M.C. Shukla T.S. Grewal & S.C. Gupta, Advance Accounts, S Chand Publishing, New Delhi. 8 R.L. Gupta and V.K. Gupta, “Financial Accounting”, Sultan Chand, New Delhi. 9 S P Jain and K. L. Narang: Financial Accounting- I, Kalyani Publishers, New Delhi.			
<b>Website and e-learning source</b> 1 <a href="https://www.slideshare.net/mcsharma1/accounting-for-depreciation-1">https://www.slideshare.net/mcsharma1/accounting-for-depreciation-1</a> 2 <a href="https://www.slideshare.net/ramusakha/basics-of-financial-accounting">https://www.slideshare.net/ramusakha/basics-of-financial-accounting</a> 3 <a href="https://www.accountingtools.com/articles/what-is-a-single-entry-system.html">https://www.accountingtools.com/articles/what-is-a-single-entry-system.html</a>			

### 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	Evaluate the Hire purchase accounts and Instalment systems	K1,K2,K3,K4
CO2	Prepare Branch accounts and Departmental Accounts.	K1,K2,K3,K4
CO3	Understand the accounting treatment for admission and retirement in partnership.	K1,K2,K3
CO4	Know Settlement of accounts at the time of dissolution of a firm.	K1,K2,K3
CO5	Elaborate the role of IFRS.	K1,K2,K3



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

## COURSE DESCRIPTORS

<b>Title of the Course</b>	BUSINESS LAWS	<b>Hours/Week</b>	05
<b>Course Code</b>	AUCCP22	<b>Credits</b>	05
<b>Category</b>	Core-IV	<b>Year &amp; Semester</b>	I & II
<b>Prerequisites</b>	Higher secondary commerce/computer applications	<b>Regulation</b>	2024

### Objectives of the course:

1. To know the nature and objectives of Mercantile law and the essentials of valid contract
2. To gain knowledge on performance contracts
3. To be acquainted with the rules of Indemnity and Guarantee
4. To make aware of the essentials of Bailment and pledge
5. To understand the provisions relating to sale of good.

UNITS	Contents	COs	Cognitive Levels
<b>UNIT-I</b>	<b>Elements of Contract (15hr)</b> Indian Contract Act 1872: Definition of Contract, Essentials of Valid Contract, Classification of Contract, Offer and Acceptance – Consideration – Capacity to Contract – Free Consent - Legality of Object – Contingent Contracts – Void Contract	CO1	K1,K2,K3
<b>UNIT-II</b>	<b>Performance of Contract(15 hr)</b> Meaning of Performance, Offer to Perform, Devolution of Joint liabilities & Rights, Time and Place of Performance, Reciprocal Promises, Assignment of Contracts - Remedies for Breach of contract - Termination and Discharge of Contract -Quasi Contract	CO2	K1,K2, K3
<b>UNIT-III</b>	<b>Contract of Indemnity and Guarantee (15hr)</b> Contract of Indemnity and Contract of Guarantee - Extent of Surety's Liability, Kinds of Guarantee, Rights of Surety, Discharge of Surety	CO3	K1,K2, K3, K4
<b>UNIT-IV</b>	<b>Bailment and Pledge(15 hr)</b> Bailment and Pledge – Bailment – Concept – Essentials -Classification of Bailment, Duties and Rights of Bailor and Bailee – Law of Pledge – Meaning – Essentials of Valid Pledge, Pledge and Lien, Rights of Pawner and Pawnee.	CO4	K1,K2, K3

<b>UNIT-V</b>	<b>Sale of Goods Act 1930:(15 hr)</b> Definition of Contract of Sale – Formation - Essentials of Contract of Sale - Conditions and Warranties - Transfer of Property – Contracts involving Sea Routes - Sale by Non owners - Rights and duties of buyer - Rights of an Unpaid Seller	CO3	K1,K2, K3,K4
<b>Recommended Text Books</b> 1 N.D. Kapoor , Business Laws- Sultan Chand and Sons, New Delhi.			
<b>Reference Books</b> 1 Preethi Agarwal, Business Law, CA foundation study material, Chennai. 2 Business Law by Saravanavel, Sumathi, Anu, Himalaya Publications, Mumbai. 3 Kavya and Vidhyasagar, Business Law, Nithya Publication, New Delhi. 4 D.Geet, Business Law Nirali Prakashan Publication, Pune. 5 M.R. Sreenivasan , Business Laws, Margham Publications, Chennai. 6 R.S.N. Pillai – Business Law, S.Chand, New Delhi. 7 M C Kuchhal& Vivek Kuchhal, Business law, S Chand Publishing, New Delhi 8 M.V. Dhandapani, Business Laws, Sultan Chand and Sons, New Delhi. 9 Shusma Aurora, Business Law, Taxmann, New Delhi.			
<b>Website and e-learning source</b> 1 <a href="http://www.cramerz.com">www.cramerz.com</a> <a href="http://www.digitalbusinesslawgroup.com">www.digitalbusinesslawgroup.com</a> 2 <a href="http://swcu.libguides.com/buslaw">http://swcu.libguides.com/buslaw</a> 3 <a href="http://libguides.slu.edu/businesslaw">http://libguides.slu.edu/businesslaw</a>			

**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 Objectives and significance of Mercantile law	K1,K2,K3
CO2	Understand the clauses and exceptions of Indian Contract Act.	K1,K2, K3
CO3	Outline the contract of indemnity and guarantee	K1,K2, K3, K4
CO4	Familiar with the provision relating to Bailment and Pledge	K1,K2, K3
CO5	Explain the various provisions of Sale of Goods Act 1930	K1,K2, K3,K4

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

## COURSE DESCRIPTORS

<b>Title of the Course</b>	OFFICE AUTOMATION AND LAB	<b>Hours/Week</b>	02
<b>Course Code</b>	AUECP23A	<b>Credits</b>	02
<b>Category</b>	ELECTIVE– II	<b>Year &amp; Semester</b>	I & II
<b>Prerequisites</b>	Higher secondary commerce/computer applications	<b>Regulation</b>	2024

### Objectives of the course:

1. The major objective in introducing the Computer Skills course is to impart Training for students in Microsoft Office which has different components like MS Word, MS Excel and Power point.
2. The course is highly practice oriented rather than regular class room teaching.
3. To acquire knowledge on editor, spread sheet and presentation software

UNITS	Contents	COs	Cognitive Levels
<b>UNIT-I</b>	<b>Introductory concepts:</b> Hardware and Software - Memory unit – CPU-Input Devices: Key board, Mouse and Scanner. Output devices: Monitor, Printer. Introduction to Operating systems - Introduction to Programming Languages.	CO1	K1, K2,K3
<b>UNIT-II</b>	<b>Word Processing:</b> File menu operations - Editing text – tools, formatting, bullets and numbering - Spell Checker - Document formatting – Paragraph alignment, indentation, headers and Footers, printing – Preview, options, merge.	CO2	K1,K2,K3
<b>UNIT-III</b>	<b>Spreadsheets:</b> Excel – opening, entering text and data, formatting, navigating; Formulas – entering, handling and copying	CO3	K1,K2,K3
<b>UNIT-IV</b>	<b>Charts</b> – creating, formatting and printing, analysis tables, Preparation of financial statements, introduction to data analytics.	CO4	K1,K2,K3
<b>UNIT-V</b>	Power point: Introduction to Power point - Features – Understanding slide typecasting & viewing slides – creating slide Shows. Applying special object – including objects & pictures – Slide transition – Animation effects, audio inclusion, timers.	CO5	K1,K2,K3

### Text Books:

Peter Norton, “Introduction to Computers” –Tata McGraw-Hill.

**Reference Books**

Jennifer Ackerman Kettel, Guy Hat-Davis, Curt Simmons, "Microsoft 2003",  
Tata McGraw- Hill.

**Website and e-learning source**

1. <http://elearning.vtu.ac.in/econtent/courses/video/BS/14CPL16.html>
2. <https://nptel.ac.in/courses/106/105/106105171>

**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 the basics of computer systems and its components.	K1, K2,K3
CO2	Apply the basic concepts of a word processing package.	K1,K2,K3
CO3	Apply the basic concepts of electronic spreadsheet software.	K1,K2,K3
CO4	Apply the basic concepts of database management system.	K1,K2,K3
CO5	Create a presentation using PowerPoint tool.	K1,K2,K3

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

## COURSE DESCRIPTORS

<b>Title of the Course</b>	OFFICE AUTOMATION LAB	<b>Hours/Week</b>	02
<b>Course Code</b>	AUEPCP23A	<b>Credits</b>	01
<b>Category</b>	ELECTIVE II	<b>Year &amp; Semester</b>	I & II
<b>Prerequisites</b>	Higher secondary commerce/computer applications	<b>Regulation</b>	2024

### Objectives of the course:

- The major objective in introducing the Computer Skills course is to impart training for students in Microsoft Office which has different components like MS Word, MS Excel and Power point.
- The course is highly practice oriented rather than regular class room teaching
- To acquire knowledge on editor, spread sheet and presentation software.

### Office Automation Lab

**Learning Objectives:** (for teachers: what they have to do in the class/lab/field)

Office tools course would enable the students in crafting professional word documents, excel spread sheets, power point presentations using the Microsoft suite of office tools.

To familiarize the students in preparation of documents and presentations with office automation tools.

### List of Programs

#### Word

**Word Orientation :** The instructor needs to give an overview of Microsoft word & Importance of MS Word as word Processor, Details of the four tasks and features that would be covered Using word – Accessing, overview of toolbars, saving files, Using help and resources, rulers, format painter.

**Task 1 :** Using word to create project certificate. Features to be covered:-Formatting Fontsin word, Drop Cap in word, Applying Text effects, Using Character Spacing, Borders andColors, Inserting Header and Footer, Using Date and Time option in Word.

**Task 2 :** Creating project abstract Features to be covered:-Formatting Styles, Insertingtable, Bullets and Numbering, Changing Text Direction, Cell alignment, Footnote,Hyperlink, Symbols, Spell Check , Track Changes.

**Task 3 :** Creating a Newsletter : Features to be covered:- Table of Content, Newspapercolumns, Images from files and clipart, Drawing toolbar and Word Art, Formatting Images,Textboxes and ParagraphsExcel

**Excel Orientation :** The instructor needs to tell the importance of MS Excel as a Spreadsheet tool, give the details of the four tasks and features that would be covered Excel– Accessing, overview of toolbars, saving excel files, Using help and resources {Comdex Information Technology course tool kit Vikas }

**Task1:** Creating a Scheduler - Features to be covered: Gridlines, Format Cells, Summation, auto fill, Formatting Text

**Task 2 :** Calculations - Features to be covered:- Cell Referencing, Formulae in excel –average, standard deviation, Charts, Renaming and Inserting worksheets, Hyper linking, Count function, LOOKUP/VLOOKUP

**Task 3 :** Performance Analysis - Features to be covered:- Split cells, freeze panes, group and outline, Sorting, Boolean and logical operators, Conditional formatting

### **MS Power Point**

**Task1 :** Students will be working on basic power point utilities and tools which help them create basic power point presentation. Topic covered includes :- PPT Orientation, Slide Layouts, Inserting Text, Word Art, Formatting Text, Bullets and Numbering, Auto Shapes, Lines and Arrows

**Task 2:** This session helps students in making their presentations interactive. Topics covered includes: Hyperlinks, Inserting –Images, Clip Art, Audio, Video, Objects, Tables and Charts

**Task 3:** Concentrating on the in and out of Microsoft power point. Helps them learn best practices in designing and preparing power point presentation. Topics covered includes :- Master Layouts (slide, template, and notes), Types of views (basic, presentation, slideslotter, notes etc), Inserting – Background, textures, Design Templates, Hidden slides. Autocontent wizard, Slide Transition, Custom Animation, Auto Rehearsing

<b>Extended Professional Component</b>	Questions related to the above topics, from various competitive examinations UPSC / TRB / NET / UGC –CSIR / GATE / TNPSC / others to be solved (To be discussed during the Tutorial hour)
<b>Skills acquired from the course</b>	Knowledge, Problem Solving, Analytical ability, Professional Competency, Professional Communication and Transferrable Skill

- Comdex Information Technology course tool kit Vikas Gupta, WILEY Dreamtech, 2005 2.
- The Complete Computer upgrade and repair book, 3rd edition Cheryl A Schmidt, WILEY Dreamtech
- Introduction to Information Technology, ITL Education Solutions limited, Pearson Education PC Hardware and A + Handbook – Kate J. Chas PHI (Microsoft)



**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 the basics of computer systems and its components.	K1, K2,K3,K4
CO2	Apply the basic concepts of a word processing package.	K1,K2,K3,K4,K5,K6
CO3	Apply the basic concepts of electronic spreadsheet software.	K1,K2,K3,K4,K5
CO4	Apply the basic concepts of database management system.	K1,K2,K3,K4,K5
CO5	Create a presentation using PowerPoint tool.	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	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

<b>Title of the Course</b>	PROGRAMMING IN C++ LAB	<b>Hours/Week</b>	02
<b>Course Code</b>	AUEPCP23B	<b>Credits</b>	02
<b>Category</b>	ELECTIVE II	<b>Year &amp; Semester</b>	I & II
<b>Prerequisites</b>	Higher secondary commerce/computer applications	<b>Regulation</b>	2024

### Objectives of the course:

- To engender an appreciation for the need and characteristics of Object orientation.
- To impart knowledge of the C++ language grammar in order to design and implement programming solutions to simple problems by applying Object oriented thinking.

UNITS	Contents	COs	Cognitive Levels
<b>UNIT-I</b>	<b>Object Oriented Programming Concepts:</b> Complexity in software - The need for object-orientation – Abstraction – Encapsulation – Modularity – Hierarchy. Basic Elements of C++: Classes – Objects – Data members and member functions – private and public access specifier – Static members - Constructors – Singleton class Destructors	CO1	K1,K2,K3
<b>UNIT-II</b>	<b>Friend Functions and Friend Classes</b> - Array of objects – Pointer To objects - this pointer – References – Dynamic memory allocation - Namespaces. Function Overloading: Overloading a function - Default Arguments – Overloading Constructors. Operator Overloading: Overloading an operator as a memberfunction – Overloading an operator as a friend function	CO2	K1,K2,K3, K4
<b>UNIT-III</b>	Overloading the operators [], (), -> and comma operators Conversion Functions. Inheritance: Types of inheritance – protected access specified – Virtual Base Class – Base class and derived class constructors. Run-time Polymorphism: Virtual Functions	CO3	K1,K2,K3, K4
<b>UNIT-IV</b>	Function overriding - Pure virtual function – Abstract base class. Templates: Function templates – Overloading a function template – Class templates.	CO4	K1,K2,K3, K4
<b>UNIT-V</b>	Exception Handling: Exceptions – try, catch, throw – Returning an exception – Restricting exceptions - Handling exceptions in derived classes - terminate(), abort(), unexpected(), set_terminate(). I/O Streams: Formatted I/O with ios class functions - Manipulators – Creating own manipulator – Overloading << and >> operators.	CO5	K1,K2,K3, K4

**Recommended Text Books**

1. Herbert Schildt, C++ - The Complete Reference, Third Edition, TMH, 1999.
2. Grady Booch, Object Oriented Analysis and Design, Pearson Education, 2008. (For Unit I)

**Reference Books**

1. Bjarne Stroustrup, The C++ Programming Language, Addison Wesley, 2000.
2. J. P. Cohoon and J. W. Davidson, C++ Program Design – An Introduction to Programming and Object-Oriented Design, Second Edition, McGraw Hill, 1999.
3. C. J. Lippman, C++ Primer, Third Edition, Addison Wesley, 2000.

**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 various basic concepts of Object-orientation.	K1,K2,K3
CO2	Write programs to implement static binding	K1,K2,K3,K4
CO3	Write programs to implement inheritance and dynamic binding	K1,K2,K3,K4
CO4	Write programs to exception handling and learn how to use STL class library.	K1,K2,K3,K4
CO5	Write programs implementing File and Stream I/O.	K1,K2,K3,K4

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

**Learning Objectives: (for teachers:**

What they have to do in the class/lab/field) Design classes for the given problems.

- Write programs in C++.
- Code, debug and execute a C++ program to solve the given problems using an IDE.

**Course Outcomes: (for students: To know what they are going to learn)**

CO1: Design and create classes. Implement Stream I/O as appropriate.

CO2: Design appropriate data members and member functions.

CO3: Implement functions, friend functions, static members, constructors and compile-time polymorphism. CO4:

Implement inheritance, run-time polymorphism and destructors.

CO5: Implement templates and exceptions. Use STL class library. Implement File I/O.

## Object Oriented Programming with C++

### List of programs

- Write a class to represent a complex number which has member functions to do the following
  - Set and show the value of the complex number
  - Add, subtract and multiply two complex numbers
  - Multiplying the complex number with a scalar value
- Write a Point class that represents a 2-d point in a plane. Write member functions to
  - Set and show the value of a point.
  - Find the distance between two points.
  - Check whether two points are equal or not
- Design and implement a class to represent a Solid object.
  - Apart from data members to represent dimensions, use a data member to specify the type of solid.
  - Use functions to calculate volume and surface area for different solids.
- Design a class representing time in hh:mm:ss. Write functions to
  - Set and show the time
  - Find the difference between two time objects
  - Adding a given duration to a time d. Conversion of the time object to seconds.
- Design a 3x3 matrix class and demonstrate the following:
  - Addition and multiplication of two matrices using operator overloading.
  - Maintaining a count of the number of matrix object created.
- Design a class called cString to represent a string data type. Create a data member in the class to represent a string using an array of size 100. Write the following functionality as member functions:

- a. Copy Constructor
  - b. Concatenate two strings
  - c. Find the length of the string
  - d. Reversing a string
  - e. Comparing two strings
8. Design a class called cString to represent a string data type. Create a data member in the class to represent a string whose size is dynamically allocated. Write the following as member functions:
- a. Copy Constructor
  - b. Destructor
  - c. Concatenate two strings
  - d. Find the length of the string
  - e. Reversing a string
  - f. Comparing two strings.

<b>Extended Professional Component</b>	Questions related to the above topics, from various competitive examinations UPSC / TRB / NET / UGC –CSIR / GATE / TNPSC / others to be solved (To be discussed during the Tutorial hour)
<b>Skills acquired from the Course</b>	Knowledge, Problem Solving, Analytical ability, Professional Competency, Professional Communication and Transferrable Skill.

### Learning Resources:

#### Recommended Texts.

1. Herbert Schildt, C++ - The Complete Reference, Third Edition, TMH, 1999.
2. Grady Booch, Object Oriented Analysis and Design, Pearson Education, 2008. (For Unit I)

#### Reference Books

1. Bjarne Stroustrup, The C++ Programming Language, Addison Wesley, 2000.
2. J. P. Cohoon and J. W. Davidson, C++ Program Design – An Introduction to Programming and Object-Oriented Design, Second Edition, McGraw Hill, 1999. C. J. Lippman, C++ Primer, Third Edition, Addison Wesley, 2000.

## COURSE DESCRIPTORS

<b>Title of the Course</b>	INDUSTRIAL LAWS	<b>Hours/Week</b>	02
<b>Course Code</b>	AUSCP24	<b>Credits</b>	02
<b>Category</b>	SKILL ENHANCEMENT– II	<b>Year &amp; Semester</b>	I & II
<b>Prerequisites</b>	Higher secondary commerce/computer applications	<b>Regulation</b>	2024

### Objectives of the course:

- To Understand and apply the concept of Factories Act
- To capable students to comprehend the legal framework governing Industrial Law toSettle industrial disputes.
- To expose students to the principles relating to health and safety laws in theWorkplace.
- To explain the relevant laws governing ESI Act 1948 and EPF Act 1952.
- To know the development and the judicial setup of Payment of Bonus Act.

UNITS	Contents	COs	Cognitive Levels
<b>UNIT-I</b>	<b>Factories Act 1948:</b> ( 6hr) Definitions – Health – Safety – Welfare – Working Hours of Adults – Employment of Women – Employment of Young Persons – Leave with Wages.	CO1	K1,K2,K3
<b>UNIT-II</b>	<b>Industrial Disputes Act, 1947:</b> ( 6hr) Definition, Authorities, Awards, Settlements, Strikes Lockouts, LayOffs, Retrenchment and Closure.	CO2	K1,K2,K3
<b>UNIT-III</b>	<b>The Workmen’s Compensation Act:</b> ( 6hr) Nature and Scope - Definitions – Workmen’s Compensations – Employer’s Liability - Meaning of Accident Compensation Permanent -Partial and Temporary - Disablement - Compensation of Half Month Payment (Table NotNecessary).	CO3	K1,K2,K3, K4
<b>UNIT-IV</b>	<b>Employees State Insurance Act 194:</b> ( 6hr) Objects-definitions - ESI Corporation, functions - contribution and recovery benefits. Employees Provident Fund and Miscellaneous Provision Act, 1952 Objects-Definition - provident fund schemes contribution and recovery.	CO4	K1,K2,K3, K4
<b>UNIT-V</b>	<b>The Payment of Bonus Act 1965:</b> ( 6hr) Object – Application - Definitions - Methods of Computing Gross Profits - Payment of Bonus - Importance.	CO5	K1,K2,K3, K4,K5

**Recommended Text Books**

1. N.D.Kapoor – Industrial Laws, Sultan Chand & Sons, New Delhi.
2. P.C.Tripathi - Industrial Laws, Sultan Chand & Sons, New Delhi

**Reference Books**

1. Dr.M.R.Sreenivasan & C.D.Balaji - Industrial Laws & Public Relations, Margham Publications, Chennai.
2. B.Nandha Kumar, Industrial Laws, Vijay Nichole Prints, Chennai.
3. "Industrial Relations and Labour Laws" - S C Srivastava -Vikas Publishing
4. "Industrial Relations and Labour Laws" - Piyali Ghosh and Shefali Nandan Tata McGrawHill India

**Website and e-learning source**

1. <https://www.icsi.edu/media/webmodules/publications/7.%20Industrial,%20Labour%20and%20General%20Laws.pdf>
2. [https://www.mlsu.ac.in/econtents/1185\\_Industrial%20Relations%20and%20Labour%20Laws.pdf](https://www.mlsu.ac.in/econtents/1185_Industrial%20Relations%20and%20Labour%20Laws.pdf)
3. <https://sbs.ac.in/wp-content/uploads/2021/02/BBA-5th-IRLL-Complete-Notes updated1.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	Remember and recall the various concepts of Factories act 1948.	K1,K2,K3
CO2	Demonstrate the provisions and concepts of Industrial Disputes Act, 1947.	K1,K2,K3
CO3	Analyse the various measures and policies in The Workmen's Compensation Act.	K1,K2,K3,K4
CO4	Examine the different aspects of ESI and EPF Act.	K1,K2,K3,K4
CO5	Critically evaluate the Case studies relating to Bonus Act.	K1,K2,K3,K4,K5

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

## COURSE DESCRIPTORS

<b>Title of the Course</b>	ADVERTISEMENT	<b>Hours/Week</b>	02
<b>Course Code</b>	AUSCP25	<b>Credits</b>	02
<b>Category</b>	Skill Enhancement – III	<b>Year &amp; Semester</b>	I & II
<b>Prerequisites</b>	Higher secondary commerce/computer applications	<b>Regulation</b>	2024

### Objectives of the course:

- To understand the meaning, objectives, and scope of Advertising, as well as the benefits and elements of Advertising.
- To explore the features and types of Advertising Agencies, understand the criteria for selecting an Agency, and learn how to maintain a Client-Agency relationship
- To examine the ethical and social issues in Advertising, and understand the positive and negative influences of Advertising on Indian values and culture
- To understand the communication process and explore the role of Advertising in developing brand image and brand equity, and learn strategies for managing brand crises
- To learn copy writing essentials, copy elements and types, layout principles, execution styles and pre-testing and post-testing methods in Advertising

UNITS	Contents	COs	Cognitive Levels
<b>UNIT-I</b>	<b>Introduction: (6hr)</b> Advertising meaning - Definition – objectives – scope - benefits – Elements - Media in Advertising.	CO1	K1,K2,K3
<b>UNIT -II</b>	<b>Advertising Agency: (6hr)</b> Advertising agency Features - Types of Advertising Agencies - Agency selection criteria - Maintaining Agency client- relationship.	CO2	K1,K2,K3
<b>UNIT-III</b>	<b>Social And Economic Aspects of Advertising:(6hr)</b> Social aspects: Ethical and social issues in Advertising, positive and negative influence of Advertising on Indian values and culture. Economic aspect: Effect of Advertising on consumer demand, monopoly and competition, price.	CO3	K1,K2,K3
<b>UNIT-IV</b>	<b>Brand Building: (6hr)</b> The communication process-AIDA Model, role of advertising in developing brand image and brand equity, and managing brand crises.	CO4	K1,K2,K3
<b>UNIT-V</b>	<b>Fundamentals of Creativity in Advertising: (6hr)</b> Essentials of copywriting, copy - elements – types –layout – principles execution styles - Pretesting and post testing of Advertisements - methods and objectives.	CO5	K1,K2,K3



**Recommended Text Books**

- Advertising Principles and Practice by Ruchi Gupta-, S.Chand Publishing. New Delhi.

**Reference Books**

1. Rathor, B.S.-Advertising management-Himalaya Publishing House.
2. Myers-Advertising management-PHI Norms-Advertising-PHI.
3. Sontakki. C.N, Advertising, Kalyani Publishers, Ludhiana.
4. Brand Positioning-Strategies for competitive Advantage by Subroto Sengupta-TataMcGraw Hill Publication.

**Website and e-learning source**

1. [https://archive.mu.ac.in/myweb\\_test/sybcom-avtg-eng.pdf](https://archive.mu.ac.in/myweb_test/sybcom-avtg-eng.pdf)
2. <https://uascku.ac.in/wp-content/uploads/2020/04/Advertising-B.Com.-VISemester-UnitWise-Notes.pdf>
3. <http://osou.ac.in/eresources/DJMC-06-BLOCK-02.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	Identify media elements used in advertising.	K1,K2,K3
CO2	Demonstrate effective client-agency relationship management.	K1,K2,K3
CO3	Evaluate the impact of advertising on Indian values and culture.	K1,K2,K3
CO4	Analyze advertising's role in brand building and Managing brand crises.	K1,K2,K3
CO5	Utilize layout principles and execution styles post-testing of advertisements.	K1,K2,K3

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

## COURSE DESCRIPTORS

<b>Title of the Course</b>	<b>Corporate Accounting I</b>	<b>Hours/Week</b>	<b>05</b>
<b>Course Code</b>	<b>AUCCP31</b>	<b>Credits</b>	<b>05</b>
<b>Category</b>	<b>Core-5</b>	<b>Year &amp; Semester</b>	<b>II &amp; III</b>
<b>Prerequisites</b>	<b>Higher Secondary Commerce/Computer Applications</b>	<b>Regulation</b>	<b>2024</b>

### Objectives of the course:

- To understand about the pro-rata allotment and Underwriting of Shares
- To know the provisions of companies Act regarding Issue and Redemption of Preference shares and debentures
- To learn the form and contents of financial statements as per Schedule III of Companies Act 2013
- To examine the various methods of valuation of Goodwill and shares
- To identify the Significance of International financial reporting standard (IFRS)

<b>UNITS</b>	<b>Contents</b>	<b>COs</b>	<b>Cognitive Levels</b>
<b>UNIT-I</b>	<b>Issue of Shares</b> Issue of Shares – Premium - Discount - Forfeiture - Reissue – Prorata Allotment Issue of Rights and Bonus Shares - Underwriting of Shares and Debentures – Underwriting Commission - Types of Underwriting.	CO1	K1 K2 K3
<b>UNIT-II</b>	<b>Issue &amp; Redemption of Preference Shares &amp; Debentures</b> Redemption of Preference Shares–Provisions of Companies Act– Capital Redemption Reserve – Minimum Fresh Issue – Redemption at Par, Premium and Discount. Debentures: Issue and Redemption – Meaning – Methods – In-One lot–in Installment – Purchase in the Open Market includes Ex Interest and Cum Interest - Sinking Fund Investment Method	CO2	K1 K2 K3 K4

<b>UNIT-III</b>	<b>Final Accounts</b> Introduction – Final Accounts – Form and Contents of Financial Statements as Per Schedule III of Companies Act 2013 – Part I Form of Balance Sheet – Part II Form of Statement of Profit and Loss – Ascertaining Profit for Managerial Remuneration.	CO3	K1
			K2
			K3
<b>UNIT-IV</b>	<b>Valuation of Goodwill &amp; Shares</b> Valuation of Goodwill – Meaning – Need for Valuation of Goodwill – Methods of Valuing Goodwill – Average Profit – Super Profit – Annuity and Capitalization Method. Valuation of Shares – Need for Valuation of Shares – Methods of Valuation of Shares – Net Assets Method – Yield and Fair Value Methods.	CO4	K1
			K2
			K3
			K4
<b>UNIT-V</b>	<b>Indian Accounting Standards</b> International Financial Reporting Standard (IFRS)–Meaning and its Applicability in India - Indian Accounting Standards – Meaning – Objectives – Significance – Procedures for Formulation of Standards – Ind AS – 1 Presentation of Financial Statement, Ind AS – 2 Valuation of Inventories, Ind AS – 7 Cash Flow Statement, Ind AS – 8 Accounting Policies, Changes in Accounting Estimate and Errors, Ind AS – 16 – Property, Plant & Equipment, Ind AS 38 – Intangible Assets Ind AS – 103, Business Combinations Ind AS 110, Consolidated Financial Statement. (Theory Only)	CO5	K1
			K2
			K3
	<b>Theory 20%; Problems 80%</b>		

**Recommended Text Books**

1. S.P. Jain and N.L. Narang, Advanced Accounting Vol I, Kalyani Publication, New Delhi.
2. R.L. Gupta and M. Radha swamy, Advanced Accounts Vol I, Sultan Chand, New Delhi.
3. Broman, Corporate Accounting, Taxmann, New Delhi.
4. Shukla, Grewal and Gupta- Advanced Accounts Vol I, S.Chand, New Delhi.  
M.C.Shukla, Advanced accounting Vol I, S.Chand, New Delhi

**Reference Books**

1. T.S. Reddy, A. Murthy – Corporate Accounting- Margham Publication, Chennai.
2. D.S.Rawat & Nozer Shroff, Students Guide To Accounting Standards ,Taxmann, New Delhi
3. Prof. Mukeshbramhbut, Devi, Corporate Accounting I, Ahilya Publication, Madhya Pradesh
4. Anil Kumar, Rajesh kumar, Corporate accounting I, Himalaya Publishing house, Mumbai.
5. Prasanth Athma, Corporate Accounting I, Himalaya Publishing house

**Website and e-learning source:**

- <https://www.tickertape.in/blog/issue-of-shares/>
- <https://www.taxmann.com/bookstore/bookshop/bookfiles/chapter12valuationofgoodwillandshares.pdf>
- <https://www.mca.gov.in/content/mca/global/en/acts-rules/ebooks/accountingstandards.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	Prepare and account for various entries to be passed in case of issue, forfeiture and reissue of shares and compute the liability of underwrites	K1, K2, K3
CO2	Asses the accounting treatment of issue and redemption of preference shares and debentures	K1, K2, K3,,K4
CO3	Construct Financial Statements applying relevant accounting treatments	K1, K2, K3
CO4	Compute the value of goodwill and shares under different methods and assess its applicability	K1, K2, K3, K4
CO5	Construct Financial Statements applying relevant accounting treatments	K1, K2, K3

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

## COURSE DESCRIPTORS

<b>Title of the Course</b>	<b>Business Mathematics &amp; Statistics</b>	<b>Hours/Week</b>	<b>05</b>
<b>Course Code</b>	<b>AUCCP32</b>	<b>Credits</b>	<b>05</b>
<b>Category</b>	<b>Core-6</b>	<b>Year &amp; Semester</b>	<b>II &amp; III</b>
<b>Prerequisites</b>	<b>Higher secondary commerce/computer applications</b>	<b>Regulation</b>	<b>2024</b>

### Objectives of the course:

- To impart knowledge on the basics of ratio, proportion, variations, simple and compound interest and arithmetic, geometric and harmonic progressions.
- To familiarize with the measures of central tendency
- To learn about variations
- To conceptualize with correlation coefficient
- To gain knowledge on time series analysis

<b>UNITS</b>	<b>Contents</b>	<b>COs</b>	<b>Cognitive Levels</b>
<b>UNIT-I</b>	<b>Business Mathematics – Ratios</b>  Ratio, Proportion and Variations. Banker's Discount – Simple and Compound Interest - Arithmetic, Geometric and Harmonic Progressions. Annuity - Meaning – Types of Annuity Applications.	CO1	K1 K2 K3
<b>UNIT-II</b>	<b>Business Statistics - Measures of Central Tendency</b>  Arithmetic Mean, Geometric Mean - Harmonic Mean - Mode and Median – Quartiles – Deciles - Percentiles.	CO2	K1 K2 K3

<b>UNIT-III</b>	<b>Measures of Variation</b> Range - Quartile Deviation and Mean Deviation - Variance and Standard Deviation & Coefficient.	CO3	K1
			K2
			K3
<b>UNIT-IV</b>	<b>Correlation and Regression</b> Correlation - Karl Pearson's Coefficient of Correlation – Spearman's Rank Correlation – Regression Lines and Coefficients.	CO4	K1
			K2
			K3
<b>UNIT-V</b>	<b>Time Series Analysis and Index Numbers</b> Time Series Analysis: Secular Trend – Seasonal Variation – Cyclical variations - Index Numbers – Aggregative and Relative Index – Chain and Fixed Index –Wholesale Index – Cost of Living Index.	CO5	K1
			K2
			K3

**THEORY – 20%, PROBLEMS – 80%**

**Recommended Text Books**

1. S.P.Gupta, Sultan Chand and Sons, New Delhi
2. Dr. B.N. Gupta, Business Mathematics & Statistics, Shashibhawan publishing house, Chennai

**Reference Books**

1. Asim Kumar Manna, Business Mathematics & Statistics, McGraw hill education, Noida
2. A.V. Rayarikar and Dr. P.G. Dixit, Business Mathematics & Statistics, Nirali Prakashan Publishing, Pune
3. Dr.S. Sachdeva, Business Mathematics & Statistics, Lakshmi NarainAgarwal, Agra
4. P.R. Vittal, Business Mathematics & Statistics, Margham Publications, ChennaiJ.K. Sharma, Fundamentals of business statistics, Vikas publishing, Noida
5. Peter Waxman, Business Mathematics & Statistics, Prentice Hall, New York
6. Andre Francis, Business Mathematics & Statistics, Cengage Learning EMEA, Andover
7. Aggarwal B M, Business Mathematics & Statistics, Ane Book Pvt. Ltd., New Delhi
8. R.S. Bhardwaj, Business Mathematics & Statistics, Excel Books Publisher, New Delhi

**Website and e-learning source:**

<https://www.britannica.com/biography/Henry-Briggs>

<https://corporatefinanceinstitute.com/resources/data-science/central-tendency/>

<https://www.expressanalytics.com/blog/time-series-analysis/>

**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	Learn the basics of ratio, proportion, Familiarize with calculations of simple & compound interest and arithmetic, geometric and harmonic progressions	K1,K2,K3
CO2	Determine the various measures of central tendency	K1,K2,K3
CO3	Determine the various measures of variation and standard deviation & coefficient.	K1,K2,K3
CO4	Calculate the correlation and regression and its coefficient.	K1,K2,K3
CO5	Assess problems on time series analysis and index numbers	K1,K2,K3

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



## COURSE DESCRIPTORS

<b>Title of the Course</b>	<b>Programming In Java</b>	<b>Hours/Week</b>	<b>02</b>
<b>Course Code</b>	<b>AUECP33A</b>	<b>Credits</b>	<b>02</b>
<b>Category</b>	<b>Elective - III</b>	<b>Year &amp; Semester</b>	<b>II &amp; III</b>
<b>Prerequisites</b>	<b>Higher secondary commerce/computer applications</b>	<b>Regulation</b>	<b>2024</b>

### Objectives of the course:

- To provide fundamental knowledge of object-oriented programming.
- To Implement the basic object oriented concepts of Core Java
- To enable the students to use interfaces and packages
- To Implement multithreading and exception handling in Core Java
- To enable AWT controls, Event Handling and Swing for GUI.

<b>UNITS</b>	<b>Contents</b>	<b>COs</b>	<b>Cognitive Levels</b>
<b>UNIT-I</b>	Introduction: Review of Object-Oriented concepts - Java buzzwords (Platform independence, Portability, Threads)- JVM architecture – Java Program structure - –Java main method - Java Console output(System out) - simple java program - Data types - Variables - type conversion and casting- Java Console input: Buffered input - operators - control statements - Static Data - Static Method - String and String Buffer Classes	CO1	K1,K2,K3 K4
<b>UNIT-II</b>	Java user defined Classes and Objects – Arrays – constructors - Inheritance: Basic concepts - Types of inheritance - Member access rules - Usage of this and Super keyword - Method Overloading - Method overriding - Abstract classes - Dynamic method dispatch - Usage of final keyword	CO2	K1,K2,K3

<b>UNIT-III</b>	Packages: Definition - Access Protection - Importing Packages - Interfaces: Definition – Implementation – Extending Interfaces Exception Handling: try – catch - throw - throws – finally – Built-in exceptions - Creating own Exception classes - garbage collection, finalize.	CO3	K1,K2,K3, K4,K5
<b>UNIT-IV</b>	Multithreaded Programming: Thread Class - Runnable interface – Synchronization – Using synchronized methods – Using synchronized statement - Inter Thread Communication – Deadlock.	CO4	K1,K2,K3
<b>UNIT-V</b>	Adapter classes - Inner classes -Java Util Package / Collections Framework: Collection & Iterator Interface- Enumeration- List and Array List- Vector- Comparator	CO5	K1,K2,K3, K4,K5,K6

**Recommended Text Books**

1. Herbert Schildt, The Complete Reference, Tata McGraw Hill, New Delhi, 7th Edition, 2010.
2. Gary Cornell, Core Java 2 Volume I – Fundamentals, Addison Wesley, 1999.

**Reference Books**

Head First Java, O’Rielly Publications, Y. Daniel Liang, Introduction to Java Programming, 7th Edition, Pearson Education India, 2010.

**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 the basic Object-oriented concepts & Implement the basic constructs of Core Java	K1,K2,K3K4
CO2	Implementing the basic object oriented concepts of Core Java	K1,K2,K3
CO3	Implement packages, interfaces in Core Java	K1,K2,K3,K4,K5
CO4	Implement multithreading and exception handling in Core Java	K1,K2,K3
CO5	Implementing adaptor class and framework	K1,K2,K3,K4,K5,K6

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

## COURSE DESCRIPTORS

<b>Title of the Course</b>	<b>Programming In Java Lab</b>	<b>Hours/Week</b>	<b>01</b>
<b>Course Code</b>	<b>AUEPCP33A</b>	<b>Credits</b>	<b>01</b>
<b>Category</b>	<b>Elective - III</b>	<b>Year &amp; Semester</b>	<b>II &amp; III</b>
<b>Prerequisites</b>	<b>Higher secondary commerce/computer applications</b>	<b>Regulation</b>	<b>2024</b>

### Objectives of the course:

- To gain practical expertise in coding Core Java programs
- To become proficient in the use of AWT, Event Handling and Swing

### List of Programs

1. Write a Java program that prompts the user for an integer and then prints out all the prime numbers up to that Integer?
2. Write a Java program to multiply two given matrices.
3. Write a Java program that displays the number of characters, lines and words in a text?
4. Generate random numbers between two given limits using Random class and print messages according to the range of the value generated.
5. Write a program to do String Manipulation using Character Array and perform the following string operations:
  - a) String length
  - b) Finding a character at a particular position
  - c) Concatenating two strings
6. Write a program to perform the following string operations using String class:
  - a) String Concatenation
  - b) Search a substring
  - c) To extract substring from given string
7. Write a program to perform string operations using String Buffer class:
  - a) Length of a string
  - b) Reverse a string

c) Delete a substring from the given string

COs	CO Description	Cognitive Level
CO1	Execute Java programs	K1,K2,K3
CO2	Create functionality using String in Java programs	K1,K2,K4,K5
CO3	Develop String Buffer classes in Java programs	K2,K3,K4,K5
CO4	Multithreading in Java programs	K1,K2,K3,K4
CO5	Implement exception-handling in Java	K3,K4,K5,K6

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

## COURSE DESCRIPTORS

<b>Title of the Course</b>	<b>Web Technology (PHP)</b>	<b>Hours/Week</b>	02
<b>Course Code</b>	<b>AUECP33B</b>	<b>Credits</b>	02
<b>Category</b>	<b>Elective III</b>	<b>Year &amp; Semester</b>	II & III
<b>Prerequisites</b>	<b>Higher secondary commerce/computer applications</b>	<b>Regulation</b>	2024

### Objectives of the course:

- To use PHP to develop dynamic web sites for user on the Internet
- To develop web sites ranging from simple online information forms to complex e- commerce sites with MySQL database, building, connectivity, and maintenance
- To create control statements and array in PHP
- To create class and functions in PHP
- To use PHP and MySQL to develop website

UNITS	Contents	COs	Cognitive Levels
<b>UNIT-I</b>	Introducing PHP – Basic development Concepts – Creating first PHP Scripts – Using Variable and Operators – Storing Data in variable – Understanding Data types – Setting and Checking variables Data types – Using Constants – Manipulating Variables with Operators.	CO1	K1,K2,K3
<b>UNIT-II</b>	Controlling Program Flow: Writing Simple Conditional Statements Writing More Complex Conditional Statements – Repeating Action with Loops – Working with String and Numeric Functions.	CO2	K1,K2,K4, K5
<b>UNIT-III</b>	Working with Arrays: Storing Data in Arrays – Processing Arrays with Loops and Iterations –Using Arrays with Forms - Working with Array Functions – Working with Dates and Times.	CO3	K2,K3,K4, K5

<b>UNIT-IV</b>	Using Functions and Classes: Creating User-Defined Functions - Creating Classes – Using Advanced OOP Concepts.	CO4	K1,K2,K3, K4
<b>UNIT-V</b>	Working with Database and SQL: Introducing Database and SQL- Using MySQL-Adding and modifying Data-Handling Errors – Using SQLite Extension and PDO Extension. Introduction XML - Simple XML and DOM Extension.	CO5	K3,K4,K5, K6

**Recommended Text Books**

Vikram Vaswani, “PHP A Beginner's Guide”, Tata McGraw Hill 2008.

**Reference Books**

1. Steven Holzner , “The PHP Complete Reference”, Tata McGraw Hill, 2007.
2. Steven Holzer , “Spring into PHP”, Tata McGraw Hill 2011, 5thEdition.

**Website and e-learning source**

<https://www.w3schools.com/php/>

<https://www.phptpoint.com/php-tutorial-pdf/>

<http://www.xmlsoftware.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	develop dynamic websites under PHP	K1,K2,K3
CO2	create dynamic websites for user on the Internet by using PHP	K1,K2,K4,K5
CO3	design control statements and array in PHP	K2,K3,K4,K5
CO4	implement class and functions in PHP	K1,K2,K3,K4
CO5	execute PHP and MySQL to develop website	K3,K4,K5,K6

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

## COURSE DESCRIPTORS

<b>Title of the Course</b>	<b>Web Technology(PHP) Lab</b>	<b>Hours/Week</b>	<b>1</b>
<b>Course Code</b>	<b>AUEPCP33B</b>	<b>Credits</b>	<b>1</b>
<b>Category</b>	<b>ELECTIVE III</b>	<b>Year &amp; Semester</b>	<b>II &amp; III</b>
<b>Prerequisites</b>	<b>Higher secondary commerce/computer applications</b>	<b>Regulation</b>	<b>2024-2025</b>

### Objectives of the course:

- To have a practical understanding about how to write PHP code to solve problems.
- To display and insert data using PHP and MySQL.
- To test, debug, and deploy web pages containing PHP and MySQL.
- To introduce practical sessions to develop simple applications using PHP and MySQL.
- To create connection between web application and MYSQL data base

### List of Programmes

1. Write a PHP program which adds up columns and rows of given table
2. Write a PHP program to compute the sum of first n given prime numbers
3. Write a PHP program to find valid an email address
4. Write a PHP program to convert a number written in words to digit.
5. Write a PHP script to delay the program execution for the given number of seconds.
6. Write a PHP script, which changes the colour of the first character of a word
7. Write a PHP program to find a multiplication table of a number.
8. Write a PHP program to calculate the Factorial of a number.
9. Write a PHP code to create a student mark sheet table. Insert, delete and modify records.
10. From a XML document (email.xml), write a program to retrieve and print all the email addresses from the document using XML.



**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	Develop web applications using PHP.	K1,K2,K3,K5,K6
CO2	Create web applications such as ecommerce using PHP	K1,K2,K3,K5,K6
CO3	Create dynamic Web applications such as content management, user registration, using PHP and to understand the ability to post and publish a PHP website.	K1,K2,K3,K5,K6
CO4	Develop a MySQL database for web applications	K1,K2,K3,K5,K6
CO5	Establish connectivity using MySQL with web applications	K1,K2,K3,K5,K6

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

## COURSE DESCRIPTORS

<b>Title of the Course</b>	<b>Service Marketing</b>	<b>Hours/Week</b>	<b>01</b>
<b>Course Code</b>	<b>AUSCP34</b>	<b>Credits</b>	<b>01</b>
<b>Category</b>	<b>Skill Enhancement - 4</b>	<b>Year &amp; Semester</b>	<b>II &amp; III</b>
<b>Prerequisites</b>	<b>Higher secondary commerce/computer applications</b>	<b>Regulation</b>	<b>2024</b>

### Objectives of the course:

- To know the service concept, its evolution and growth.
- To understand Marketing Mix in service marketing and its effective management.
- To know the service marketing techniques applied in various sectors.
- To emphasize the distinctive aspects of Services Marketing
- To visualize the different Service Marketing Strategies.

<b>UNITS</b>	<b>Contents</b>	<b>COs</b>	<b>Cognitive Levels</b>
<b>UNIT-I</b>	Introduction to Services – Service Marketing –Meaning and definition- Nature and Scope Characteristics–Challenges and Issues of service marketing-Service marketing in India– Classifications of services	CO1	K1,K2
<b>UNIT-II</b>	Marketing Mix in Service Marketing: The Seven Ps: Product Decision, Pricing, Strategies and Tactics, Promotion of Service-additional dimension in Services Marketing – People, Physical Evidence and Process.	CO2	K1,K2,K3
<b>UNIT-III</b>	Positioning of services – Designing service delivery System – Pricing of services – objectives – methods –Services on retail sector –Service Level Agreements (SLA) – Service marketing triangle.	CO3	K1,K2,K3, K4
<b>UNIT-IV</b>	Managing service operations-Participants in services-Employees and customer's role in service delivery- Mass production and delivery-Importance of quality in services - Delivering Quality Service.	CO4	K1,K2,K3

<b>UNIT-V</b>	Service Marketing Strategies for health – Hospitality – Tourism – Financial & Information technique Services–Applying technology to Service settings–e-services.	CO5	K1,K2,K3, K4
<b>Recommended Text Books</b> 1. Dr.B.Balaji, Services Marketing and Management, S.Chand & Co, New Delhi.			
<b>Reference Books</b> 1. Dr.L.Natarajan Services Marketing, Margham Publications, Chennai. 2. S.M. Jha, Services marketing, Himalaya Publishers, India 3. Baron, Services Marketing, Second Edition. Palgrave Macmillan 4. Thakur. G.S. Sandhu Supreet & Dogra Babzan, Services Marketing, Kalyani Publishers, Ludhianna. 5. Zeithaml Valerie A, & Bitner MaryJo., Gremler Dwayne D., Pandit Ajay; Services Marketing, McGraw Hill. 6. Wirtz Jochen, Lovelock Christopher H, Chatterjee Jayanta. Services Marketing, 8e Edition, Pearson.			
<b>Website and e-learning source</b> <a href="https://kanchiuniv.ac.in/coursematerials/T5MM1servicesmarketing.pdf">https://kanchiuniv.ac.in/coursematerials/T5MM1servicesmarketing.pdf</a> <a href="https://sde.uoc.ac.in/sites/default/files/sde_videos/SLM-MCom-SERVICE%20MARKETING.pdf">https://sde.uoc.ac.in/sites/default/files/sde_videos/SLM-MCom-SERVICE%20MARKETING.pdf</a> <a href="https://www.enotesmba.com/2012/06/service-marketing-and-service-marketing.html">https://www.enotesmba.com/2012/06/service-marketing-and-service-marketing.html</a>			

### 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 the Concept of Services and intangible products	K1,K2
CO2	Discuss the relevance of the services Industry to Industry	K1,K2,K3
CO3	Examine the characteristics of the services industry and the modus operandi	K1,K2,K3,K4
CO4	Analyze the role and relevance of Quality in Services	K1,K2,K3
CO5	Critically Visualize future changes in the Services Industry	K1,K2,K3,K4

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

## COURSE DESCRIPTORS

<b>Title of the Course</b>	<b>Everyday Banking</b>	<b>Hours/Week</b>	<b>02</b>
<b>Course Code</b>	<b>AUSCP35</b>	<b>Credits</b>	<b>02</b>
<b>Category</b>	<b>Skill Enhancement - 5</b>	<b>Year &amp; Semester</b>	<b>II &amp; III</b>
<b>Prerequisites</b>	<b>Higher secondary commerce/computer applications</b>	<b>Regulation</b>	<b>2024</b>

### Objectives of the course:

- To introduce the basic concepts of banking
- To gain knowledge about ATMs and Fund transfer
- To understand online banking processes
- To learn about mobile banking
- To gain knowledge about mobile payment system

<b>UNITS</b>	<b>Contents</b>	<b>COs</b>	<b>Cognitive Levels</b>
<b>UNIT-I</b>	Banking–Definition–passbook–Cheque book–Format of Cheque – Filling up of Cheque–Deposit Challan–Filling up–Clearing Cheque–Transfer Cheque – Collection Cheque– Payable at par – Demand Draft	CO1	K1,K2,K3,
<b>UNIT-II</b>	Application filling – Account Opening form – Filling up – Documents required–Debit Card–Credit Card–ATM Machine–Cash Deposit Machine – Passbook printing machine. MICR- IFSC- Fund transfer through ECS– NEFT–RTGS – Form filling for Fund transfer.	CO2	K1,K2,K3
<b>UNIT-III</b>	Online Banking–Signup–Process–Requirements–Login–Customer ID– User ID– Password – Hints for creating Passwords – change of password – online transactions –Account statements – Fund Transfer – Payment of bills – Utility payments	CO3	K1,K2,K3,

<b>UNIT-IV</b>	Loans–Repayment for Loans–other services. Mobile Banking meaning–importance – Advantages – Mobile Applications (App) WAP (Wireless Application Protocol)- USSD (Unstructured Supplementary Service Data)- Registration process – through Mobiles	CO4	K1,K2,K3,
<b>UNIT-V</b>	Process at Bank Branch-ATM- User ID- PIN- change of MPIN –IMPS D(Immediate Mobile Payment System) - UPI(Unified Payment interface) – BHIM(Bharat Interface for money)- NPCI (National Payment Corporation of India) - Bank account Management – Transfer Funds – paying Bills – Locating ATMs - QR code payments- Alerts and notifications- Tracking Spending habits – Cash back- Safe banking methods.	CO5	K1,K2,K3
<b>Recommended Text Books</b>  1. B.Santhanam-Banking & Financial systems, Margham Publications			
<b>Reference Books</b>  1. S.N.Maheshwari Banking Theory, law and Practice, Kalyani Publications 2. Parameswaran-Indian Banking, S. Chand & Co			
<b>Website and e-learning source</b>  1. <a href="https://en.wikipedia.org/wiki/Online_banking">https://en.wikipedia.org/wiki/Online_banking</a> 2. <a href="https://www.sbi.co.in/portal/web/services/internet-banking">https://www.sbi.co.in/portal/web/services/internet-banking</a> 3. <a href="https://www.hdfcbank.com/assets/popuppages/netbanking.htm">https://www.hdfcbank.com/assets/popuppages/netbanking.htm</a> 4. <a href="https://www.investopedia.com/terms/m/mobile-banking.asp">https://www.investopedia.com/terms/m/mobile-banking.asp</a> 5. <a href="http://www.scotiabank.com/mobile/ca/en/0,,5181,00.html">www.scotiabank.com/mobile/ca/en/0,,5181,00.html</a>			

**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	Exhibit the skill to perform basic banking operations and distinguish between basic documents	K1,K2,K3
CO2	Fill up of applications and transfer of funds	K1,K2,K3
CO3	Execute Online Banking	K1,K2,K3
CO4	Form Mobile banking and related transactions	K1,K2,K3
CO5	Do to mobile payment system by using various modes	K1,K2,K3

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