

Gowrivakkam, Chennai-600073.

Affiliated to University of Madras, ISO 9001:2015 Certified Institution

DEPARTMENT OF COMPUTER APPLICATIONS

2020-2021

COURSE OUTCOMES

YEAR/ SEM: I/I – LA11A- TAMIL I

NO.	COURSE OUTCOME
C101.1	மரபு மற்றும் புதுக்கவிதைகளின் வாயிலாக அக்காலச் சூழல் மற்றும் சமூகச் சிக்கல்களை அறிகின்றனர்.
C101.2	நாட்டுப்புறப்பாடல்களின் வாயிலாக சமூகஅமைப்பு, வேளாண் செய்திகள் மற்றும் நீர்ப்பாசனம் போன்ற செய்திகளை அறிகின்றனர்.
C101.3	சிறுகதை மற்றும் உரைநடையின் வாயிலாகப் பல்வேறு காலச் சூழல்களை அறிகின்றனர்.
C101.4	நாற்காலிக்காரர் நாடகத்தின் வாயிலாக தேர்தல் களம் பற்றி அறிகின்றனர்.
C101.5	மொழிப்பயிற்சியின் வாயிலாகவாக்கியங்கள், இருவழக்குகள், சொல்வகைகள் ஆகியவற்றை அறிகின்றனர்.

YEAR/ SEM: I/I – LE11A - HINDI I

NO.	COURSE OUTCOME
C102.1	To identify the theme and aims of prose lessons and functional Hindi
C102.2	To understand and summaries the theme
C102.3	To explain the ideology of literary works and writers
C102.4	To interpret the contextual meaning and differentiation
C102.5	To evaluate on the basis of elements, features and trends of prose



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YEAR/ SEM: I/I – LZ11A – COMMUNICATIVE ENGLISH I

NO.	COURSE OUTCOME
C103.1	To develop the knowledge of skillful learning.
C103.2	Ability to write coherent paragraphs with wide range of vocabulary
C103.3	To teach the aspects of grammar
C103.4	To learn word power and vocabulary skills other aspects of Communicative skill
C103.5	Ability to participate in short group conversations. Ability to use collocations, fixed and semifixed expressions

YEAR/ SEM: I/I - SE21A - PROBLEM SOLVING USING PYTHON

NO.	COURSE OUTCOME
C104.1	To use and explain the fundamentals of Python programming, conditional statements, control statements and loops
C104.2	To apply the proficiency in handling Numbers, Strings and functions to solve computational problems.
C104.3	To select various data structures in python such as List, Tuple, Set and Dictionary
C104.4	To use common operations involved in file handling and Exception handling
C104.5	To design and develop solution for real-time application using Database operations

YEAR/ SEM: I/I - SE211 - PROBLEM SOLVING USING PYTHON LAB

NO.	COURSE OUTCOME
C105.1	To write, test and debug Python Programs
C105.2	To implement conditionals and Loops for Python Programs
C105.3	To understand the numeric or real-life application problems and solve them
C105.4	To Uue functions and represent Compound data using Lists, Tuples and Dictionaries
C105.5	To read and write data from & to files in Python and develop Application using programme.



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YEAR/ SEM: I/I - SM3AA - MATHEMATICS I

NO.	COURSE OUTCOME
C106.1	To apply tools and ideas in Mathematics for Solving Applied Problems
C106.2	To understand the importance of Matrices and its Applications
C106.3	To acquire ideas on Theory of Equations and its Applications
C106.4	To understand knowledge about the Expansions of Trigonometric Functions, Hyperbolic Functions
C106.5	To make the students to understand the Summation of Series and Differential Calculus

YEAR/ SEM: I/I - NLT1C - BASIC TAMIL

NO.	COURSE OUTCOME
C107.1	தமிழ் எழுத்துகளைத் தெரிந்துகொள்ளுதல்
C107.2	தமிழ் ஒலியன்களை உச்சரிக்கக் கற்றுக்கொள்ளுதல்
C107.3	எழுத்துக்களைக் கொண்டு சொற்களை உருவாக்குதல்
C107.4	அன்றாடப் பயன்பட்டு சொற்களைப் பயிற்றுவித்தல்
C107.5	தமிழ் மொழியை அறிந்து கொள்ளுதல்

YEAR/ SEM: I/I – SM5AA – FUNCTIONAL MATHEMATICS I

NO.	COURSE OUTCOME
C108.1	To apply Mathematical methodologies to understand and to solve problems
C108.2	To understand brief description of learning objective
C108.3	To understand Quantitative Reasoning
C108.4	To understand Quantitative reasoning, mental alertness



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C108.5	To arithmetic ability in problems solving and mathematical skills. Important
C100.5	measure for a prospective Business executive ability

YEAR/ SEM: I/I - PZ1SA - ENGLISH FOR PHYSICAL SCIENCES I

NO.	COURSE OUTCOME
C109.1	To listen and comprehend complex academic texts
C109.2	To read and infer the denotative and connotative meanings of technical texts
C109.3	To write definitions, descriptions, narrations and essays on various topics
C109.4	To speak fluently and accurately in formal and informal communicative contexts
C109.5	To express their opinions effectively in both oral and written medium of communication

YEAR/ SEM: I/II – LA12A– TAMIL II

NO.	COURSE OUTCOME
C110.1	சங்க இலக்கியங்களின் வாயிலாக அக்கால மக்களின் வாழ்வியலை அறிகின்றனர்.
C110.2	புறநானூற்றின் வாயிலாக மன்னர்களின் போர்ச் சமூக அமைப்பை அறிகின்றனர்
C110.3	முல்லைப்பாட்டின் வாயிலாக முல்லைநிலமக்களின் வாழ்வியல்,பண்பாடு ஆகியவற்றை அறிகின்றனர்
C110.4	திருக்குறள் மற்றும் நாலடியார் வாயிலாக ஈகை மற்றும் ஒழுக்கத்தை அறிகின்றனர்
C110.5	மொழிப்பயிற்சி வாயிலாக தமிழைப் பிழையில்லாமல் எழுதவும் பேசவும் அறிகின்றனர்

YEAR/ SEM: I/II – LE12A– HINDI II

NO.	COURSE OUTCOME
C111.1	To understand the Drama and the stories based on social problems.
C111.2	To understand the change in content and style of expression in short stories in the modern period
C111.3	To develop the skills of Translation from Hindi to English by using highly technical words



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C111.4	To analyze the development of a one-act play
C111.5	To learn technical words

YEAR/ SEM: I/II - LZ12A - COMMUNICATIVE ENGLISH II

NO.	COURSE OUTCOME
C112.1	Ability to comprehend both the written and spoken texts. Ability to frame questions and answer them. Ability to write/speak grammatically correct sentences
C112.2	To enroll people in our ideas, our visions, and our visions
C112.3	To enhance listening skills
C112.4	Awareness of the art of personal letter/email writing without grammatical errors
C112.5	To analyse crucial for effectiveness – particularly in sales or leadership roles

YEAR/ SEM: I/II – SU22A – OBJECT ORIENTED PROGRAMMING CONCEPTS USING C++

NO.	COURSE OUTCOME
C113.1	To use of various OOPs concepts with the help of programs
C113.2	To understand basic concepts of Class, Objects and Functions
C113.3	To understand the concepts of Overloading and Inheritance.
C113.4	To describe the concept of Pointers, Arrays, virtual functions and polymorphism
C113.5	To understand the concepts of File and Exception Handling

YEAR/ SEM: I/II - SU221 - C++ PROGRAMMING LAB

NO.	COURSE OUTCOME
C114.1	To use of various OOPs concepts with the help of programs.



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C114.2	To understand basic concepts and different modules that include conditional and looping and expressions.
C114.3	To understand arrays, strings, functions, pointers, structures, and file programming in C++ language.
C114.4	To implement code that includes the reuse of both existing code and calling functions in the C++ libraries.
C114.5	To design, implement, debug and test programs using the fundamental elements of C++.

YEAR/ SEM: I/II – SM3AE – MATHEMATICS II

NO.	COURSE OUTCOME
C115.1	To gain knowledge about basic concepts of Differential Equation, Laplace Transforms, Vector Analysis and Calculus
C115.2	To acquire the knowledge of mathematics to Computer studies
C115.3	To understand the different methods of solving. Laplace and Inverse Laplace Transforms problems and applying it on solving Differential Equations.
C115.4	To understand the Types of Integration and Reducing Formula
C115.5	To apply ideas in Vector analysis and understanding the Interpretation in Science

YEAR/ SEM: I/II - SM5AB - FUNCTIONAL MATHEMATICS II

NO.	COURSE OUTCOME
C116.1	To make mathematics functional in everyday life
C116.2	To include recognizing and being able to solve Mensuration problems.
C116.3	To understand and evaluate problems in Time, Work and Distance.
C116.4	Have a grasp of stock and shares
C116.5	To make effective use in better understanding the world and in meeting its challenges



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YEAR/ SEM: I/II - NLT2D - BASIC TAMIL

NO.	COURSE OUTCOME
C117.1	தமிழ் இலக்கியங்களை அறிந்துகொள்ளுதல்
C117.2	அற இலக்கியங்களைத் தெரிந்துகொள்ளுதல்
C117.3	திருக்குறளின் சிறப்புகளை அறிந்துகொள்ளுதல்
C117.4	தமிழர்களின் பண்பாடு, நாகரிகம் போன்றவற்றைத் தெரிந்துகொள்ளுதல்
C117.5	தமிழகத்தின் விழாக்களை அறிந்துகொள்ளுதல்

YEAR/ SEM: I/II - PZ1SC - ENGLISH FOR PHYSICAL SCIENCES II

NO.	COURSE OUTCOME
C118.1	To understand the basic objective of the course by being acquainted with specific dimensions of communication skills i.e. Reading, Writing, Listening, Thinking and Speaking
C118.2	To create substantial base by the formation of strong professional vocabulary for its application at different platforms and through numerous modes as Comprehension, reading, writing and speaking etc.
C118.3	Students will apply it at their work place for writing purposes such as Presentation/official drafting/administrative communication and use it for document/project/report/research paper writing.
C118.4	To evaluate the correct & error-free writing by being well-versed in rules of English grammar & cultivate relevant technical style of communication & presentation at their work place & also for academic uses
C118.5	To apply it for practical and oral presentation purposes by being honed up in presentation skills and voice-dynamics. They will apply techniques for developing inter-personal communication skills and positive attitude leading to their professional competence.

YEAR/ SEM: II/III - SAZ3A - PROGRAMMING IN C++ AND DATA STRUCTURES

NO.	COURSE OUTCOME
C201.1	To understand the basic syntax and structure of C++ programs
C201.2	To apply object-oriented programming principles to design and implement efficient code



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C201.3	To understand and implement fundamental data structures such as arrays, linked lists, stacks, queues and trees
C201.4	To apply algorithmic design techniques, such as divide and conquer and dynamic programming to solve problems
C201.5	To analyze and optimize code for time and space complexity

YEAR/ SEM: II/III - SAZ3B - MICROPROCESSOR AND ITS APPLICATIONS

NO.	COURSE OUTCOME
C202.1	To learn the difference between low- and high-level languages and to know about mnemonics and opcode
C202.2	To learn about how to write simple Assembly Language Programs
C202.3	To understand the concepts of counters, stack and subroutine
C202.4	To describe about number system conversions with example
C202.5	To understand the concepts of interrupts and memory interfaces

YEAR/ SEM: II/III – SAZ3C – NUMERICAL AND STATISTICAL METHODS

NO.	COURSE OUTCOME
C203.1	To implement various concepts of numerical analysis and statistics to solve real life problems
C203.2	To analyze algebraic and transcendental equation by numerical methods
C203.3	To derive numerical methods for various mathematical operations such as differentiation and integration
C203.4	To communicate statistical concepts clearly and professionally in oral form
C203.5	To recognize, describe, and calculate the measures of location and measures of variation



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YEAR/ SEM: II/III – SAZ31 – PROGRAMMING IN C++ USING DATA STRUCTURES (PRACTICAL)

NO.	COURSE OUTCOME
C204.1	To gain hands-on experience with array and pointer implementations to reinforce stack operations
C204.2	To explore the utilization of arrays and pointers in practicing queue operations for a deeper understanding.
C204.3	To acquire knowledge on expression evaluation techniques for effective problem- solving.
C204.4	To engage in practical exercises to master linked list operations and enhance programming skills.
C204.5	To apply BFS and DFS traversal algorithms in practical scenarios for a comprehensive understanding of graph operations.

YEAR/ SEM: II/III - SBZ3C - FINANCIAL ACCOUNTING

NO.	COURSE OUTCOME
C205.1	To understand the basic principles of accounting. To understand the system of keeping financial accounting records
C205.2	To understand the meaning and types of Depreciation and its Applications
C205.3	To understand about branch accounting and departmental accounts
C205.4	To analyze the relevance of hire purchase and installment system
C205.5	To understand in detail about partnership, reconstitution, and the accounts in relation with that.

YEAR/ SEM: II/III - TSSEG - PERSONALITY ENRICHMENT

NO.	COURSE OUTCOME
C206.1	To develop and exhibit an accurate sense of self.
C206.2	To demonstrate knowledge of personal beliefs and values and a commitment to continuing personal reflection and reassessment
C206.3	To evaluate and improve upon personal leadership strengths and weaknesses
C206.4	To build self-awareness, personal development, and life skills.



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C206.5 To assert strengthened personal character and further, an enhance	nced ethical sense.
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YEAR/ SEM: II/IV -SAZ4A - PROGRAMMING IN JAVA

NO.	COURSE OUTCOME
C207.1	To acquire fundamental knowledge of the Java programming language
C207.2	To explore classes, objects, methods and strings through practical examples
C207.3	To grasp the concept of interfaces, packages and their various types
C207.4	To demonstrate skills in handling files and managing errors and exceptions
C207.5	To gain insights into network basics, AWT controls, AWT events and event handling

YEAR/ SEM: II/IV – SAZ4B – OPERATING SYSTEM

NO.	COURSE OUTCOME
C208.1	To understand the fundamentals of operating system and its functions
C208.2	To learn about process synchronization, semaphore and deadlock
C208.3	To understand the concept of memory, memory management and its types
C208.4	To implement the concept of virtual memory, file system and its types
C208.5	To explore the intricacies of I/O systems and secondary storage structures

YEAR/ SEM: II/IV - SAZ4C - COMPUTER GRAPHICS

NO.	COURSE OUTCOME
C209.1	To learn the brief survey of Computer Graphics, CRT, LED, LCD & plasma panel displays
C209.2	To learn about various algorithm like DDA, Bradenham's for generating basic geometric shapes
C209.3	To understand the 2D(basic) transformations using matrices and viewing coordinates



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C209.4	To understand the 3D transformations using matrices and display methods
C209.5	To learn about viewing pipeline and coordinates, Hidden surface and hidden line elimination methods

YEAR/ SEM: II/IV - SAZ41 - JAVA PROGRAMMING LAB

NO.	COURSE OUTCOME
C210.1	To showcase programs involving the String class and Stream class
C210.2	To engage in exercises for random number generation and utilizing the Calendar class
C210.3	To exhibit programs for database creation, vector classes, and packages
C210.4	To create programs for threads, exception handling and file operations
C210.5	To develop programs focusing on threads, exception handling and file manipulation

YEAR/ SEM: II/IV - SBZ4A - COST AND MANAGEMENT ACCOUNTING

NO.	COURSE OUTCOME
C211.1	To learn the theory and practices of cost and management accounting
C211.2	To understand about the material management and pricing methods
C211.3	To understand in detail about Labour cost and wage payment methods.
C211.4	To study about Overhead and its apportionment
C211.5	To study in detail about the marginal costing and the types of budgeting

YEAR/ SEM: II/IV – TSSEN - QUANTITATIVE APPTITUDE

NO.	COURSE OUTCOME
C212.1	To apply Quantitative Reasoning and Mathematical Methodologies to understand and to solve problems



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C212.2	To understand Brief Description of Learning Objective
C212.3	To acquire Mental Alertness and have a sharp mind
C212.4	To ensure testing ability in various Competitive Examinations
C212.5	To enable the important measure for prospective business executives abilities.

YEAR/ SEM: II/IV – ENV4B – ENVIRONMENTAL STUDIES

NO.	COURSE OUTCOME
C213.1	To know the scope and importance of environmental studies and to create public awareness for environmental protection
C213.2	To elucidate the problems created by the over utilization of resources and to suggest alternate energy to meet our energy crisis/demand.
C213.3	To give a neat sketch explanation of ecosystem, ecological succession, ecological pyramid, food chain and food web.
C213.4	To know the different methods of biodiversity conservation
C213.5	To analyze the effects of pollution and the role of individual for pollution control programme

YEAR/ SEM: III/V – SAZ5A – DATABASE MANAGEMENT SYSTEM

NO.	COURSE OUTCOME
C301.1	To acquire fundamental concepts of DBMS and Normal Forms
C301.2	To comprehend the basic and general principles of SQL
C301.3	To explore the generation of forms and reports
C301.4	To understand user interface features and methods of data storage
C301.5	To learn about database administration and different database types



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YEAR/ SEM: III/V - SAZ5B - SOFTWARE ENGINEERING

NO.	COURSE OUTCOME
C302.1	To gain understanding of the fundamentals of Software Engineering
C302.2	To assess software cost estimation and various techniques associated with it
C302.3	To familiarize yourself with the basic and general concepts of Software Requirement Specifications
C302.4	To grasp fundamental design concepts
C302.5	To explore verification, validation techniques and the principles of software maintenance

YEAR/ SEM: III/V – SAZ5C – RESOURE MANGEMENT TECHNIQUES

NO.	COURSE OUTCOME
C303.1	To design a mathematical model for an optimization problem in real life by adopting the techniques of OR
C303.2	To solve shortest route problem
C303.3	To evaluate the concepts in linear programming
C303.4	To make use of simplex method to solve optimization problems
C303.5	To utilize PERT and CPM in project management

YEAR/ SEM: III/V - SAZ51 - RDBMS LAB

NO.	COURSE OUTCOME
C304.1	To utilize DDL commands to construct a database and tables
C304.2	To employ DML, DCL, and TCL commands for various operations
C304.3	To construct applications for payroll, marksheet, and bank account
C304.4	To engineer systems for inventory management, invoicing and library management



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C304.5	To design and code for student information, income tax processing, electricity
C304.3	bill, and telephone directories

YEAR/ SEM: III/V - SEZ5A - VISUAL PROGRAMMING

NO.	COURSE OUTCOME
C305.1	To learn about how to customize a form
C305.2	To learn about how to display information and control structures
C305.3	To understand the concepts of arrays, lists, sorting and searching methods
C305.4	To generate the various dialog boxes and working with graphics
C305.5	To learn about Event Handling and File Handling methods

YEAR/ SEM: III/V - VAE5Q - VALUE EDUCATION

NO.	COURSE OUTCOME
C306.1	To understand the importance and of value education
C306.2	To learn about salient values for life and problem-solving and decision-making skills
C306.3	To know the importance of human rights & social values
C306.4	To know the importance of environment and ecological balance
C306.5	To learn about social evils and how to tackle them.

YEAR/ SEM: III/VI - SAZ6A - WEB TECHNOLOGY

NO.	COURSE OUTCOME
C307.1	To understand the basic concepts of VB Script
C307.2	To implement Java Script basics and its control structures
C307.3	To get knowledge about Java Script DOM



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C307.4	To understand the structure of ASP.NET and its basic controls
C307.5	To learn about request and response objects & OLEDB connection

YEAR/ SEM: III/VI - SAZ6B - DATA COMMUNICATION AND NETWORKING

NO.	COURSE OUTCOME
C308.1	To understand about data communication, protocols, topologies and the OSI model
C308.2	To apply error detection and correction methods
C308.3	To acquire knowledge in multiplexing and switching
C308.4	To understand the principles of ISDN and ATM networks
C308.5	To utilize various routing algorithms

YEAR/ SEM: III/VI - SAZ6C - SOFTWARE TESTING

NO.	COURSE OUTCOME
C309.1	To understand basic concepts of software testing and its purposes, debugging and its types of bugs
C309.2	To enumerate the applications of flow/graphs, path testing and flow testing techniques
C309.3	To understand the strategies of data flow testing and interface testing
C309.4	To learn about the metrics, path products and its expressions, Test cases
C309.5	To develop logic-based testing and to prepare state graphs and decision tables

YEAR/ SEM: III/VI - SAZ61 - WEB APPLICATION LAB

NO.	COURSE OUTCOME
C310.1	To apply VB Script to enhance client-side scripting capabilities, enabling efficient user interactions
C310.2	To implement dynamic and interactive web features using Java Script



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C310.3	To master the concepts and practices of ASP.NET programming for developing robust and scalable web solutions
C310.4	To exhibit the ability to analyze, design and implement effective solutions using this programming language within the ASP.NET framework
C310.5	To integrate Java Script, VB Script and ASP.NET to create comprehensive and feature-rich web projects

YEAR/ SEM: III/VI - SEZ6H - DATA MINING

NO.	COURSE OUTCOME
C311.1	To acquire understanding of fundamental data mining functionalities, data warehousing and data preprocessing
C311.2	To explore knowledge about data mining primitives, languages, data generalization and system architecture
C311.3	To study mining association rules, relational databases and data warehouses
C311.4	To gain insights into classification, its types, prediction and classifier accuracy
C311.5	To comprehend cluster analysis, its methods and model-based clustering techniques

YEAR/ SEM: III/VI - SEZ6G - DISTRIBUTED COMPUTING

NO.	COURSE OUTCOME
C311.1	To learn about distributed database, security & integrity, distributed processing, models for distributed computing
C311.2	To gain knowledge about hardware concepts, software concepts, design issues
C311.3	To learn about communications in distributed system.
C311.4	To understand the concepts of synchronization, mutual exclusion, deadlock, and thread.
C311.5	To understand about Distributed file system, implementations of new trends in distributed file systems