PRINCE SHRI VENKATESHWARA ARTS AND SCIENCE COLLEGE
Gowrivakkam, Chennai-600073.
Affiliated to University of Madras, ISO 9001:2015 Certified Institution

DEPARTMENT OF COMPUTER SCIENCE

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	நாற்காலிக்காரரர் நாடகத்தின் வாயிலாக தேர்தல் களம் பற்றி அறிகின்றனர்.
C101.5	மொழிப்பயிற்சியின் வாயிலாகவாக்கியங்கள், இருவழக்குகள், சொல்வகைகள் ஆகியவற்றை அறிகின்றனர்.

YEAR/ SEM: I/ I–CLE1E- HINDI I

NO.	COURSE OUTCOME
C102.1	To identify the theme and aims of prose lessons and functional Hindi
C102.2	To understand and summarise 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

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 gain proficiency in Python programming, including understanding basic syntax, data types and control structures and functions
C105.2	To develop algorithmic thinking skills which involves breaking down a problem into smaller, solvable components and designing efficient algorithms to solve them
C105.3	Understanding and using fundamental data structures in Python, such as lists, dictionaries, sets and tuples
C105.4	To be familiar with commonly used Python libraries and modules, such as NumPy for numerical computing, pandas for data manipulation, and matplotlib for data visualization

C105.5	Aiming to enhance students’ problem-solving skills by providing them with various programming challenges and project

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 their 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–SM5AA – FUNCTIONAL MATHEMATICS I

NO.	COURSE OUTCOME
C107.1	To apply Mathematical methodologies to understand and to solve problems
C107.2	To understand brief description of learning objective
C107.3	To understand Quantitative Reasoning
C107.4	To understand Quantitative reasoning, mental alertness
C107.5	To arithmetic ability in problems solving and mathematical skills. Important measure for a prospective Business executive ability

YEAR/ SEM: I/I– NLT1C – BASIC TAMIL

NO.	COURSE OUTCOME
C108.1	தமிழ் எழுத்துகளைத் தெரிந்து கொள்ளுதல்.
C108.2	தமிழ் ஒலியன்களை உச்சரிக்கக்கற்றுக் கொள்ளுதல்.
C108.3	எழுத்துக்களைக் கொண்டு சொற்களை உருவாக்குதல்.

C108.4	அன்றாடப் பயன்பாட்டு சொற்களைப் பயிற்றுவித்தல்.
C108.5	தமிழ்மொழியை அறிந்து கொள்ளுதல்.

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

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 அக்காலமக்களின் 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– CLE2G– 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
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–SE22A – COMPUTER ORGANIZATION

NO.	COURSE OUTCOME
C113.1	To describe the major components of a computer system and state their function and purpose
C113.2	To describe the microstructure of a processor
C113.3	To demonstrate the ability to program a microprocessor in assembly language
C113.4	To classify and describe the operation DMA and peripheral Interfaces
C113.5	To identify the elements of modern instructions sets and their impact on processor designs

YEAR/ SEM: I/II– SE221–COMPUTER ORGANIZATION LAB

NO.	COURSE OUTCOME
C114.1	To implement the arithmetic operations in assembly language programming
C114.2	To understand the programming logic of 8085 in various aspects
C114.3	To design combinational circuits for basic components of computer system and applications
C114.4	To analyse the operational behavior and applications of various flip-flop
C114.5	To design Arithmetic logic units and different types of memory blocks

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– NLT2D – BASIC TAMIL

NO.	COURSE OUTCOME
C116.1	தமிழ் இலக்கியங்களை அறிந்து கொள்ளுதல்.
C116.2	அற இலக்கியங்களைத் தெரிந்து கொள்ளுதல்.
C116.3	திருக்குறளின் சிறப்புகளை அறிந்து கொள்ளுதல்.
C116.4	தமிழர்களின் பண்பாடு, ,நாகரிகம் போன்றவற்றைத் தெரிந்து கொள்ளுதல்.

C116.5	தமிழகத்தின் விழாக்களை அறிந்து கொள்ளுதல்.

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

NO.	COURSE OUTCOME
C117.1	To make mathematics functional in everyday life
C117.2	To include recognizing and being able to solve Mensuration problems
C117.3	To understand and evaluate problems in Time, Work and Distance
C117.4	To have a grasp of stock and shares
C117.5	To make effective use in better understanding the world and in meeting its challenges

YEAR/ SEM: I/II–PZ1SC – ENGLISH FOR PHYSICAL SCIENCE -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– CLA3M – TAMIL III

NO.	COURSE OUTCOME
C201.1	பல்லவர்காலத்தில் நாயன்மார்கள் மற்றும் ஆழ்வார்களின் பக்திநெறிகளை அறிகின்றனர்.
C201.2	இசுலாமியர் மற்றும் கிறித்தவர்கள் தமிழிக்குச் செய்த தொண்டினை அறிகின்றனர்.
C201.3	நாயக்கர்காலத்தில் தோன்றிய சிற்றிலக்கியங்களின் வளர்ச்சிநிலைகளை அறிகின்றனர்.
C201.4	சமயங்கள் வளர்த்த இலக்கியங்களை அறிகின்றனர்.
C201.5	மொழிப்பயிற்சியின் வாயிலாக கடிதம் மற்றும் பிற மொழிக் கலவாமல் தமிழ்எழுத அறிகின்றனர்.

YEAR/ SEM: II/III– CLE3H – HINDI III

NO.	COURSE OUTCOME
C202.1	To understand the division and the concept of Hindi literature
C202.2	To understand the features and evaluate the period Adikaal, Bhakthikaal and Reethikaal in context of social and political condition of that period
C202.3	To identify the eminent Hindi writers of each period
C202.4	To describe the progressive nature of Kabirdas, Soordas and Thulasidas
C202.5	To understand the sudden development of ancient and medieval Hindi literature

YEAR/ SEM: II/III– CLZ3P – GENERAL ENGLISH III

NO.	COURSE OUTCOME
C203.1	To refer dictionary and study the correct stress, right accent and right intonation
C203.2	To ask questions, make requests or to make command
C203.3	They will be familiar with the conventions of diverse textual genres including fiction, nonfiction, poetry, autobiography, biography, Journal, film, plays, editorials etc.

C203.4	To make the students see how Indian English poetry expresses the ethos and culture of India
C203.5	To encourage students to interpret literary works and to develop aptitude for critical analysis

YEAR/ SEM: II/III– SAE3A – PROGRAMMING IN C++ AND DATA STRUCTURES

NO.	COURSE OUTCOME
C204.1	To understand the basic syntax and structure of C++ programs
C204.2	To apply object-oriented programming principles to design and implement efficient code
C204.3	To understand and implement fundamental data structures such as arrays, linked lists, stacks, queues and trees
C204.4	To apply algorithmic design techniques, such as divide and conquer and dynamic programming to solve problems
C204.5	To analyze and optimize code for time and space complexity

YEAR/ SEM: II/III– SAE31 – DATA STRUCTURES USING C++ (PRACTICAL)

NO.	COURSE OUTCOME
C205.1	To gain hands-on experience with array and pointer implementations to reinforce stack operations
C205.2	To explore the utilization of arrays and pointers in practicing queue operations for a deeper understanding.
C205.3	To acquire knowledge on expression evaluation techniques for effective problem-solving.
C205.4	To engage in practical exercises to master linked list operations and enhance programming skills.
C205.5	To apply BFS and DFS traversal algorithms in practical scenarios for a comprehensive understanding of graph operations.

YEAR/ SEM: II/III– SBAOC – STATISTICAL METHODS AND THEIR APPLICATIONS - I

NO.	COURSE OUTCOME
C206.1	To organize, manage and present data.
C206.2	To analyze statistical data graphically using frequency distributions and cummulative frequency distributions

C206.3	To analyze statistical data using measures of central tendency, dispersion and location.
C206.4	To use the basic probability rules, including additive and multiplicative laws, using the terms, independent and mutually exclusive events.
C206.5	To study the relationship between variables

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

NO.	COURSE OUTCOME
C207.1	To develop and exhibit an accurate sense of self.
C207.2	To demonstrate knowledge of personal beliefs and values and a commitment to continuing personal reflection and reassessment
C207.3	To evaluate and improve upon personal leadership strengths and weaknesses
C207.4	To build self-awareness, personal development, and life skills.
C207.5	To assert strengthened personal character and further, an enhanced ethical sense.

YEAR/ SEM: II/IV – CLA4K – TAMIL IV

NO.	COURSE OUTCOME
C208.1	எட்டுத்தொகையின் வாயிலாக ஐந்நிலமக்களின் வாழ்வியல்முறைகளை அறிகின்றனர்.
C208.2	புறநானூற்றின் வாயிலாக மன்னர்களின் ஆட்சி மற்றும் போர்ச் செய்திகளை அறிகின்றனர்.
C208.3	நெடுநல்வாடையின் வாயிலாக கூதிர்காலத் தன்மைகளை அறிகின்றனர்.
C208.4	இரட்டைக்காப்பியங்களின் வாயிலாக வணிகர்களின் வாழ்வியலை அறிகின்றனர்.
C208.5	திருக்குறளின் வாயிலாக மக்களின் வாழ்வியல், கல்வி, கேள்வி, ஒழுக்கம் ஆகியவற்றை அறிகின்றனர். மொழிபெயர்ப்பின் வாயிலாக தமிழ் மற்றும் ஆங்கிலமொழியறிவைப் பெறுகின்றனர்.

YEAR/ SEM: II/IV – CLE4J – HINDI IV

NO.	COURSE OUTCOME
C209.1	To make an in-depth study and analysis of the literary work
C209.2	To gain awareness on the importance of literature in addressing contemporary issues
C209.3	To create, select, and apply appropriate approaches to literature, resources and modern literary theories
C209.4	To describe the philosophy of life as well as the poems of modern literature
C209.5	To understand the History of development of drama, short stories, one act play and novel

YEAR/ SEM: II/IV – CLZ4R – GENERAL ENGLISH IV

NO.	COURSE OUTCOME
C210.1	To enable learners to appreciate and enjoy a wide range of literary or creative texts and other related cultural forms
C210.2	To perform various speaking and writing tasks, such as roleplays, debates, group discussions apart from the use of correct spelling, punctuation
C210.3	To enhance students awareness in the aesthetics of poetry and to empower them to read, appreciate and critically evaluate poetry independently
C210.4	To enable students to become competent users of English in real life situations
C210.5	The ability to transfer information in the writing tasks

YEAR/ SEM: II/IV – SAE4A – PROGRAMMING IN JAVA

NO.	COURSE OUTCOME
C211.1	To acquire fundamental knowledge of the Java programming language
C211.2	To explore classes, objects, methods and strings through practical examples
C211.3	To grasp the concept of interfaces, packages and their various types

C211.4	To demonstrate skills in handling files and managing errors and exceptions
C211.5	To gain insights into network basics, AWT controls, AWT events and event handling

YEAR/ SEM: II/IV – SEA41 – JAVA PROGRAMMING LAB

NO.	COURSE OUTCOME
C212.1	To showcase programs involving the String class and Stream class
C212.2	To engage in exercises for random number generation and utilizing the Calendar class
C212.3	To exhibit programs for database creation, vector classes, and packages
C212.4	To create programs for threads, exception handling and file operations
C212.5	To develop programs focusing on threads, exception handling and file manipulation

YEAR/ SEM: II/IV – SBAOD – STATISTICAL METHODS AND THEIR APPLICATIONS - II

NO.	COURSE OUTCOME
C213.1	To obtain a probability distribution of random variable (one or two dimensional) in the given situation
C213.2	To apply the theoretical discrete probability distributions like binomial, Poisson, etc., in the relevant application areas
C213.3	To test the significant difference between means, variance and attributes
C213.4	To Analyse the different mathematical models with the help of statistical deigns and appropriate data and made valuable conclusions by proper evaluation
C213.5	To apply the different testing tools like sign test, run test etc.,

YEAR/ SEM: II/IV – SBAO2 – STATISTICAL METHODS AND THEIR APPLICATIONS

NO.	COURSE OUTCOME
C214.1	To analyze the statistical data graphically using frequency distribution
C214.2	To analyze the statistical data using measures of location, dispersion, skewness and kurtosis

C214.3	To apply the different testing tools like t-test, F-test, chi-square test, sign test, run test, etc., to analyse the relevant real-life problems
C214.4	To test the significances of effects of various factors on a given response are determined under uncertainty using statistical principles
C214.5	To analyze the statistical data using Non- parametric Test

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

NO.	COURSE OUTCOME
C215.1	To apply Quantitative Reasoning and Mathematical Methodologies to understand and to solve problems
C215.2	To understand Brief Description of Learning Objective
C215.3	To acquire Mental Alertness and have a sharp mind
C215.4	Quantitative aptitude is tested in various competitive examinations
C215.5	Quantitative aptitude is an important measure for prospective business executives’ abilities.

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

NO.	COURSE OUTCOME
C216.1	To know the scope and importance of environmental studies and to create public awareness for environmental protection
C216.2	To Elucidate the problems created by the over utilization of resources and to suggest alternate energy to meet our energy crisis/demand
C216.3	To give a neat sketch explanation of ecosystem, ecological succession, ecological pyramid, food chain and food web
C216.4	To know the different methods of biodiversity conservation
C216.5	To analyse the effects of pollution and the role of individual for pollution control programme

YEAR/ SEM: III/V – SAE5A – OPERATING SYSTEM

NO.	COURSE OUTCOME
C301.1	To understand the fundamentals of operating system and its functions

C301.2	To learn about process synchronization, semaphore and deadlock
C301.3	To understand the concept of memory, memory management and its types
C301.4	To implement the concept of virtual memory, file system and its types
C301.5	To explore the intricacies of I/O systems and secondary storage structures

YEAR/ SEM: III/V – SAE5B – DATA BASE MANAGEMENT SYSTEM

NO.	COURSE OUTCOME
C302.1	To acquire fundamental concepts of DBMS and Normal Forms
C302.2	To comprehend the basic and general principles of SQL
C302.3	To explore the generation of forms and reports
C302.4	To understand user interface features and methods of data storage
C302.5	To learn about database administration and different database types

YEAR/ SEM: III/V – SAE5C – COMPUTER ARCHITECHTURE AND ORGANIZATION

NO.	COURSE OUTCOME
C303.1	To recall basic architecture of a computer
C303.2	To understand memory and processor chip organisation
C303.3	To visualise concept of memory and I/O mapping
C303.4	To conceptualise instruction-execution sequence
C303.5	To Perform integer and floating-point arithmetic operations

YEAR/ SEM: III/V – SAE51 –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
C304.5	To design and code for student information, income tax processing, electricity bill, and telephone directories

YEAR/ SEM: III/V –SEE5A– 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 – SAE6B – 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
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 – SAE6A – 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 – SAE61 – WEB APPLICATION LAB

NO.	COURSE OUTCOME
C309.1	To apply VB Script to enhance client-side scripting capabilities, enabling efficient user interactions
C309.2	To implement dynamic and interactive web features using Java Script
C309.3	To master the concepts and practices of ASP.NET programming for developing robust and scalable web solutions
C309.4	To exhibit the ability to analyze, design and implement effective solutions using this programming language within the ASP.NET framework

C309.5	To integrate Java Script, VB Script and ASP.NET to create comprehensive and feature-rich web projects

YEAR/ SEM: III/VI – SEE6G – SOFTWARE ENGINEERING

NO.	COURSE OUTCOME
C310.1	To gain understanding of the fundamentals of Software Engineering
C310.2	To assess software cost estimation and various techniques associated with it
C310.3	To familiarize yourself with the basic and general concepts of Software Requirement Specifications
C310.4	To grasp fundamental design concepts
C310.5	To explore verification, validation techniques and the principles of software maintenance

YEAR/ SEM: III/VI – SEE6H - 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