

Gowrivakkam, Chennai-600073.

Affiliated to University of Madras

# DEPARTMENT OF COMPUTER SCIENCE 2018-2019

# **COURSE OUTCOMES**

#### YEAR/ SEM: I/I - CLA1L - TAMIL I

NO.	COURSE OUTCOME
C101.1	நாட்டுப்புறமக்களின் வாழ்வியல் பயன்பாடுகளை அறிகிறார்கள;.
C101.2	புதுக்கவிதைகளின் வாயிலாகப் புதுமைக்கருத்துகiளயும், சமூகr;சிக்கல்களையும் உணர்கின்றனர்.
C101.3	சிறுகதைகளின் வாயிலாகr; சமூகமக்களின்வாழ்க்கை நிலையை அறிகிறார்கள்.
C101.4	சந்திரஹரி நாடகம் வாயிலாகg;பொய் என்றும் துன்பமே என்று அறிகிறார்கள;.
C101.5	இலக்கியவரலாற்றின் வாயிலாக நாட்டுப்புறவியல், சிறுகதை, புதினம், நாடகம் ,கவிதை ஆகியவற்றில் உள்ள சமூகநீதிகளையும் சிறப்புகளையும் அறிகிறார்கள்.

#### YEAR/ SEM: I/ I-CLE1E - HINDI I

NO.	COURSE OUTCOME
C102.1	To develop Communicating, Reading and Writing skills in Hindi
C102.2	To understand the vision of Prem Chand about the poor people
C102.3	To learn the literary work on the basis of foundation laid by the Scholars
C102.4	To understand the meaning and concept of Functional Hindi
C102.5	To understand the various forms of Functional Hindi according to its area of application



Gowrivakkam, Chennai-600073.

Affiliated to University of Madras

# YEAR/ SEM: I/I-CLZ1L - GENERAL ENGLISH I

NO.	COURSE OUTCOME
C103.1	To read and understand any text in English listening to the inputs given in the classroom
C103.2	To make a detailed study of a few sample masterpieces of English poetry
C103.3	To write paragraphs and essays
C103.4	To get accurate both in oral and written communication to be strong In Grammar and its usage
C103.5	To imbibe the rules of language unconsciously and tune to deduce language structure and usage

# YEAR/ SEM: I/I-SAE1A - PROGRAMMING IN C

NO.	COURSE OUTCOME
C104.1	To understand the basics of C language
C104.2	To understand the structure of conditional and looping statements in C
C104.3	To grasp concepts related to functions and storage classes
C104.4	To learn about arrays and their different types
C104.5	To explore file operations and pointers in C programming

# YEAR/ SEM: I/I- SAE11 - PROGRAMMING IN C

NO.	COURSE OUTCOME
C105.1	To understand the basics of C Programming
C105.2	To comprehend the manipulation of strings through practice
C105.3	To gain knowledge of recursion in programming
C105.4	To improve skills in matrix manipulations through practical exercises
C105.5	To practice sorting and searching algorithms



Gowrivakkam, Chennai-600073.

Affiliated to University of Madras

# YEAR/ SEM: I/I- SBAMM - MATHEMATICS I

NO.	COURSE OUTCOME
C106.1	To Apply tools and ideas in Solving Series 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 understand the Problems in Differential Calculus

#### YEAR/ SEM: I/I- SNE1D - HTML

NO.	COURSE OUTCOME
C107.1	To understand the basic concepts of html and its tags.
C107.2	To illustrate about basic tags and its attributes.
C107.3	To learn about ordered, unordered & definition list
C107.4	To work with tables using table attributes
C107.5	To learn about the frames and its types

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

NO.	COURSE OUTCOME
C108.1	தமிழ்எழுத்துகளைத் தெரிந்து கொள்ளுதல்.
C108.2	தமிழ் ஒலியன்களை உச்சரிக்கக் கற்றுக் கொள்ளுதல்.
C108.3	எழுத்துக்களைக் கொண்டு சொற்களை உருவாக்குதல்.
C108.4	அன்றாடப் பயன்பாட்டுr; சொற்களைப் பயிற்றுவித்தல்.
C108.5	தமிழ்மொழியை அறிந்து கொள்ளுதல்.



Gowrivakkam, Chennai-600073.

Affiliated to University of Madras

# YEAR/ SEM: I/I- TSSEA - ESSENTIAL OF LANGUAGE AND COMMUNICATION

NO.	COURSE OUTCOME
C109.1	To develop effective communication skills (spoken and written).
C109.2	To develop effective presentation skills.
C109.3	To conduct effective business correspondence and prepare business reports which produce results.
C109.4	Soft skills are in direct correlation with improved academic achievement.
C109.5	To develop them both for the sake of their education, and the sake of them professional careers.

# YEAR/ SEM:I/II-CLA2H- TAMIL II

NO.	COURSE OUTCOME
C110.1	மூவேந்தர்களின் அகம் மற்றும் புற வாழ்வு பற்றிய செய்திகளை அறிகிறார்கள்.
C110.2	சிற்றிலக்கியங்களான தமிழ்விடுதூது, குற்றாலக்குறவஞ்சி, முக்கூடற்பள்ளு வாயிலாக தமிழின் சிறப்பும் மலைவளமும், வேளாண் செய்திகளையும் அறிகிறார்கள்.
C110.3	நளவெண்பாவின் வாயிலாகr; சூதாட்டத்தினால்விளையும் சீர்கேடுகளை அறிகிறார்கள்.
C110.4	சீறாப்புராணத்தின் வாயிலாக மனிதநேயத்தையும், இரக்கக்குணத்தையும் அறிகிறார்கள்.
C110.5	மொழிப்பயிற்சியின் வாயிலாக இலக்கணமுறைகளை அறிகிறார்கள்.

#### 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 develop the approach of Hindi language
C111.3	To understand the change in content and style of expression in short stories in modern period
C111.4	To develop the skills of Translation from Hindi to English by using high technical words



Gowrivakkam, Chennai-600073.

Affiliated to University of Madras

C111.5	To analyse the development of one act play	
--------	--	--

#### YEAR/ SEM:I/II - CLZ2L - GENERAL ENGLISH II

NO.	COURSE OUTCOME
C112.1	To make a detailed study of a few sample masterpieces of English poetry
C112.2	To apply critical frameworks to analyze the linguistic, cultural and historical background of texts written in English
C112.3	To get familiar with the conventions of diverse textual genres including fiction, nonfiction, poetry, autobiography, biography, plays, etc
C112.4	The ability to transfer information in the writing tasks
C112.5	To perform various speaking and writing tasks, such as roleplays, debates, group discussions apart from the use of correct spelling, punctuation

#### YEAR/ SEM:I/II- SAE2B - DIGITAL ELECTRONICS AND MICROPROCESSORS

NO.	COURSE OUTCOME
C113.1	To recollect fundamentals of digital electronics and circuit design
C113.2	To understand architecture and organization of 8085 microprocessor
C113.3	To classify various digital circuits based on their functions
C113.4	To solve problems using Assembly Language Programming
C113.5	To implement and verify basic logic gates (AND, OR, NOT) and Universal Logic Gates (NAND, NOR, EX-OR)

#### YEAR/ SEM:I/II- SAE22 - DIGITAL ELECTRONICS & MICROPROCESSORS LAB

NO.	COURSE OUTCOME
C114.1	To label various parts of Digital IC trainer kit and 8085 microprocessor kit
C114.2	To infer truth tables of basic gates like AND, OR, NOT, XOR, NAND, and NOR
C114.3	To identify functionalities of components of digital IC trainer kit and 8085 microprocessor kit



Gowrivakkam, Chennai-600073.

Affiliated to University of Madras

C114.4	To create logic circuits using basic gates and visualize its truth tables
C114.5	To synthesize basic Assembly Language programs for numerical and logical operations

# YEAR/ SEM:I/II- SBAMN - 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 in 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 Reduction 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	தமிழ்இலக்கியங்களை அறிந்து கொள்ளுதல்.
C116.2	அறஇலக்கியங்களைத் தெரிந்து கொள்ளுதல்.
C116.3	திருக்குறளின் சிறப்புகளை அறிந்து கொள்ளுதல்.
C116.4	தமிழர்களின் பண்பாடு ,நாகரிகம் போன்றவற்றைத் தெரிந்து கொள்ளுதல்.
C116.5	தமிழகத்தின் விழாக்களை அறிந்துகொள்ளுதல்.

# YEAR/ SEM:I/II- SNE24 - HTML LAB

NO.	COURSE OUTCOME
C117.1	To practice the basic tags of html
C117.2	To understand how to use the image tags and its attributes



Gowrivakkam, Chennai-600073.

Affiliated to University of Madras

C117.3	To learn about the list tags
C117.4	To practice format of tables
C117.5	To practice frame tags

# YEAR/ SEM:I/II- TSSEC - ESSENTIALS OF SPOKEN AND PRESENTATION SKILLS LEVEL - I

NO.	COURSE OUTCOME
C118.1	To develop effective communication skills (spoken and written).
C118.2	To develop effective presentation skills.
C118.3	To conduct effective business correspondence and prepare business reports which produce results.
C118.4	Soft skills are in direct correlation with improved academic achievement.
C118.5	To develop them both for the sake of their education, and the sake of their professional careers.

#### 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 பிறமொழிக் கலவாமல் தமிழ் எழுத அறிகின்றனர்.



Gowrivakkam, Chennai-600073.

Affiliated to University of Madras

# 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



Gowrivakkam, Chennai-600073.

Affiliated to University of Madras

# 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 cumulative 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



#### Gowrivakkam, Chennai-600073.

Affiliated to University of Madras

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 ஐந்நில மக்களின் வாழ்வியல் முறைகளை 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



#### Gowrivakkam, Chennai-600073.

Affiliated to University of Madras

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



Gowrivakkam, Chennai-600073.

Affiliated to University of Madras

#### 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 - I &II

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	To ensure testing ability in various Competitive Examinations
C215.5	To enable the important measure for prospective business executives' abilities.



Gowrivakkam, Chennai-600073.

Affiliated to University of Madras

#### 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



Gowrivakkam, Chennai-600073.

Affiliated to University of Madras

C302.5
--------

#### 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



#### Gowrivakkam, Chennai-600073.

Affiliated to University of Madras

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



Gowrivakkam, Chennai-600073.

Affiliated to University of Madras

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



#### Gowrivakkam, Chennai-600073.

Affiliated to University of Madras

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