



Shree Sathyam College of Engineering and Technology

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai.

NH-544, Salem - Coimbatore Highways, Kuppanur, Sankari Taluk, Salem - 637301, TamilNadu, India.

Email : principal@shreesathyam.edu.in Web : www.shreesathyam.edu.in Phone : 04283 - 244080

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ANNA UNIVERSITY REGULATIONS: 2021

LIST OF COURSES

FIRST YEAR COURES

S.NO	NAAC CODE	SUBJECT CODE	SUBJECT NAME
01	C101	HS3152	PROFESSIONAL ENGLISH - I
02	C102	MA3151	MATRICES AND CALCULUS
03	C103	PH3151	ENGINEERING PHYSICS
04	C104	CY3151	ENGINEERING CHEMISTRY
05	C105	GE3151	PROBLEM SOLVING AND PYTHON PROGRAMMING
06	C107	GE3171	PROBLEM SOLVING AND PYTHON PROGRAMMING LABORATORY
07	C108	BS3171	PHYSICS AND CHEMISTRY LABORATORY (PHYSICS LABORATORY)
08	C108	BS3171	PHYSICS AND CHEMISTRY LABORATORY (CHEMISTRY LABORATORY)
09	C109	GE3172	ENGLISH LABORATORY
10	C110	HS3252	PROFESSIONAL ENGLISH - II
11	C111	MA3251	STATISTICS AND NUMERICAL METHODS
12	C112	PH3256	PHYSICS FOR INFORMATION SCIENCE
13	C113	BE3251	BASIC ELECTRICAL AND ELECTRONICS ENGINEERING
14	C114	GE3251	ENGINEERING GRAPHICS
15	C115	CS3251	PROGRAMMING IN C
16	C117	GE3271	ENGINEERING PRACTICES LABORATORY
17	C118	CS3271	PROGRAMMING IN C LABORATORY
18	C119	GE3272	COMMUNICATION LABORATORY / FOREIGN



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			LANGUAGE
SECOND YEAR COURSES			
19	C201	MA3354	DISCRETE MATHEMATICS
20	C202	CS3351	DIGITAL PRINCIPLES AND COMPUTER ORGANIZATION
21	C203	CS3352	FOUNDATIONS OF DATA SCIENCE
22	C204	CS3301	DATA STRUCTURES
23	C205	CS3391	OBJECT ORIENTED PROGRAMMING
24	C206	CS3311	DATA STRUCTURES LABORATORY
25	C207	CS3381	OBJECT ORIENTED PROGRAMMING LABORATORY
26	C208	CS3361	DATA SCIENCE LABORATORY
27	C209	GE3361	PROFESSIONAL DEVELOPMENT
28	C210	CS3452	THEORY OF COMPUTATION
29	C211	CS3491	ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING
30	C212	CS3492	DATA BASE MANAGEMENT SYSTEMS
31	C213	CS3401	ALGORITHMS
32	C214	CS3451	INTRODUCTION TO OPERATING SYSTEMS
33	C215	GE3451	ENVIRONMENTAL SCIENCES AND SUSTAINABILITY
34	C216	CS3461	OPERATING SYSTEMS LABORATORY
35	C217	CS3481	DATABASE MANAGEMENT SYSTEMS LABORATORY
THIRD YEAR COURSES			
36	C301	CS3591	COMPUTER NETWORKS
37	C302	CS3501	COMPILER DESIGN
38	C303	CB3491	CRYPTO GRAPHY AND CYBER SECURITY
39	C304	CS3551	DISTRIBUTE DCOMPUTING
40	C305	CCS335	CLOUD COMPUTING
41	C306	CCS366	SOFTWARE TESTING AND AUTOMATION
42	C307	MX3084	DISASTER RISK REDUCTION AND MANAGEMENT



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48	C308	CCS356	OBJECT ORIENTED SOFTWARE ENGINEERING
49	C309	CS3691	EMBEDDED SYSTEMS AND IOT
50	C310	OMA351	GRAPH THEORY
51	C311	CCS336	CLOUD SERVICE MANAGEMENT
52	C312	CCS367	STORAGE TECHNOLOGIES
53	C313	CCS334	BIG DATA ANALYTICS
54	C314	MX3089	INDUSTRIAL SAFETY
FINAL YEAR COURSES			
55	C401	GE3791	HUMAN VALUES AND ETHICS
56	C402	CME365	RENEWABLE ENERGY TECHNOLOGIES
57	C403	OBT355	BIOTECHNOLOGY FOR WASTE MANAGEMENT
58	C404	GE3751	PRINCIPLES OF MANAGEMENT
59	C405	CS3711	SUMMER INTERNSHIP
60	C406	CS3811	PROJECT WORK



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ANNA UNIVERSITY REGULATION : 2021

FIRST YEAR COURSES (I & II SEMESTER)

Course Outcomes (COs)

C101	HS3152	Professional English - I
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C101.1	To use appropriate words in a professional context
C101.2	To gain understanding of basic grammatic structures and use them in right context.
C101.3	To read and infer the denotative and connotative meanings of technical texts
C101.4	To write definitions, descriptions, narrations and essays on various topics

C102	MA3151	Matrices and Calculus
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C102.1	Use the matrix algebra methods for solving practical problems.
C102.2	Apply differential calculus tools in solving various application problems.
C102.3	Able to use differential calculus ideas on several variable functions.
C102.4	Apply different methods of integration in solving practical problems.
C102.5	Apply multiple integral ideas in solving areas, volumes and other practical problems.



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103	PH3151	Engineering Physics
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C103.1	Understand the importance of mechanics.
C103.2	Express their knowledge in electromagnetic waves.
C103.3	Demonstrate a strong foundational knowledge in oscillations, optics and lasers.
C103.4	Understand the importance of quantum physics.
C103.5	Comprehend and apply quantum mechanical principles towards the formation of energy bands.

C104	CY3151	Engineering Chemistry
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C104.1	To infer the quality of water from quality parameter data and propose suitable treatment methodologies to treat water.
C104.2	To identify and apply basic concepts of nanoscience and nanotechnology in designing the synthesis of nanomaterials for engineering and technology applications.
C104.3	To apply the knowledge of phase rule and composites for material selection requirements.
C104.4	To recommend suitable fuels for engineering processes and applications.
C104.5	To recognize different forms of energy resources and apply them for suitable applications in energy sectors.



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C105	GE3151	Problem Solving and Python Programming
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C105.1	Develop algorithmic solutions to simple computational problems.
C105.2	Develop and execute simple Python programs.
C105.3	Write simple Python programs using conditionals and loops for solving problems.
C105.4	Decompose a Python program into functions.
C105.5	Represent compound data using Python lists, tuples, dictionaries etc.
C105.6	Read and write data from/to files in Python programs.

C107	GE3171	Problem Solving and Python Programming Laboratory
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C107.1	Develop algorithmic solutions to simple computational problems.
C107.2	Develop and execute simple Python programs.
C107.3	Implement programs in Python using conditionals and loops for solving problems.
C107.4	Deploy functions to decompose a Python program.
C107.5	Process compound data using Python data structures.
C107.6	Utilize Python packages in developing software applications.



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C108	BS3171	Physics and Chemistry Laboratory
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C108.1	Understand the functioning of various physics laboratory equipment.
C108.2	Use graphical models to analyze laboratory data.
C108.3	Use mathematical models as a medium for quantitative reasoning and describing physical reality.
C108.4	Access, process and analyze scientific information.
C108.5	Solve problems individually and collaboratively

C109	GE3172	English Laboratory
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C109.1	To listen to and comprehend general as well as complex academic information.
C109.2	To listen to and understand different points of view in a discussion
C109.3	To speak fluently and accurately in formal and informal communicative contexts
C109.4	To describe products and processes and explain their uses and purposes clearly and accurately
C109.5	To express their opinions effectively in both formal and informal discussions



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C110	HS3252	Professional English - II
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C110.1	To compare and contrast products and ideas in technical texts.
C110.2	To identify and report cause and effects in events, industrial processes through technical texts
C110.3	To analyse problems in order to arrive at feasible solutions and communicate them in the written format.
C110.4	To present their ideas and opinions in a planned and logical manner
C110.5	To draft effective resumes in the context of job search.

C111	MA3251	Statistics and Numerical Method
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C111.1	Apply the concept of testing of hypothesis for small and large samples in real life problems.
C111.2	Apply the basic concepts of classifications of design of experiments in the field of agriculture
C111.3	Appreciate the numerical techniques of interpolation in various intervals and apply the numerical techniques of differentiation and integration for engineering problems.
C111.4	Understand the knowledge of various techniques and methods for solving first and second order ordinary differential equations.
C111.5	Solve the partial and ordinary differential equations with initial and boundary conditions by using certain techniques with engineering applications.



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C112	PH3256	Physics for Information Science
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C112.1	Gain knowledge on classical and quantum electron theories, and energy band structures
C112.2	Acquire knowledge on basics of semiconductor physics and its applications in various devices
C112.3	Get knowledge on magnetic properties of materials and their applications in data storage,
C112.4	Have the necessary understanding on the functioning of optical materials for optoelectronics
C112.5	Understand the basics of quantum structures and their applications and basics of quantum computing

C113	BE3251	Basic Electrical and Electronics Engineering
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C113.1	Compute the electric circuit parameters for simple problems
C113.2	Explain the working principle and applications of electrical machines
C113.3	Analyze the characteristics of analog electronic devices
C113.4	Explain the basic concepts of digital electronics
C113.5	Explain the operating principles of measuring instruments



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C114	GE3251	Engineering Graphics
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C114.1	Use BIS conventions and specifications for engineering drawing.
C114.2	Construct the conic curves, involutes and cycloid.
C114.3	Solve practical problems involving projection of lines.
C114.4	Draw the orthographic, isometric and perspective projections of simple solids.
C114.5	Draw the development of simple solids.

C115	CS3251	Programming in C
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C115.1	Demonstrate knowledge on C Programming constructs
C115.2	Develop simple applications in C using basic constructs
C115.3	Design and implement applications using arrays and strings
C115.4	Develop and implement modular applications in C using functions.
C115.5	Develop applications in C using structures and pointers.
C115.6	Design applications using sequential and random access file processing



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C117	GE3271	Engineering Practices Laboratory
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C117.1	Draw pipe line plan; lay and connect various pipe fittings used in common household plumbing work; Saw; plan; make joints in wood materials used in common household wood work.
C117.2	Wire various electrical joints in common household electrical wire work.
C117.3	Weld various joints in steel plates using arc welding work; Machine various simple processes like turning, drilling, tapping in parts; Assemble simple mechanical assembly of common household equipments; Make a tray out of metal sheet using sheet metal work.
C117.4	Solder and test simple electronic circuits; Assemble and test simple electronic components on PCB.

C118	CS3271	Programming in C Laboratory
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C118.1	Demonstrate knowledge on C programming constructs.
C118.2	Develop programs in C using basic constructs.
C118.3	Develop programs in C using arrays.
C118.4	Develop applications in C using strings, pointers, functions.
C118.5	Develop applications in C using structures.
C118.6	Develop applications in C using file processing.



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C119	GE3272	Communication Laboratory / Foreign Language
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C119.1	Speak effectively in group discussions held in a formal/semi formal contexts.
C119.2	Discuss, analyse and present concepts and problems from various perspectives to arrive at suitable solutions.
C119.3	Write emails, letters and effective job applications.
C119.4	Write critical reports to convey data and information with clarity and precision.
C119.5	Give appropriate instructions and recommendations for safe execution of tasks.



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SECOND YEAR COURSES (III & IV SEMESTER)

Course Outcomes (COs) :

C201	MA3354	Discrete Mathematics
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C201.1	Have knowledge of the concepts needed to test the logic of a program.
C201.2	Have an understanding in identifying structures on many levels.
C201.3	Be aware of a class of functions which transform a finite set into another finite set which relates to input and output functions in computer science.
C201.4	Be aware of the counting principles.
C201.5	Be exposed to concepts and properties of algebraic structures such as groups, rings and fields.

C202	CS3351	Digital Principles and Computer Organization
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C202.1	Design various combinational digital circuits using logic gates.
C202.2	Design sequential circuits and analyze the design procedures
C202.3	State the fundamentals of computer systems and analyze the execution of an instruction
C202.4	Analyze different types of control design and identify hazards
C202.5	Identify the characteristics of various memory systems and I/O communication



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C203	CS3352	Foundations of Data Science
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C203.1	Define the data science process
C203.2	Understand different types of data description for data science process
C203.3	Gain knowledge on relationships between data
C203.4	Use the Python Libraries for Data Wrangling
C203.5	Apply visualization Libraries in Python to interpret and explore data

C204	CS3301	Data Structures
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C204.1	Define linear and non-linear data structures.
C204.2	Implement linear and non-linear data structure operations.
C204.3	Use appropriate linear/non-linear data structure operations for solving a given problem.
C204.4	Apply appropriate graph algorithms for graph applications.
C204.5	Analyze the various searching and sorting algorithms



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C205	CS3391	Object Oriented Programming
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C205.1	Apply the concepts of classes and objects to solve simple problems
C205.2	Develop programs using inheritance, packages and interfaces
C205.3	Make use of exception handling mechanisms and multithreaded model to solve real world problems
C205.4	Build Java applications with I/O packages, string classes, Collections and generics concepts
C205.5	Integrate the concepts of event handling and Java FX components and controls for developing GUI based applications

C206	CS3311	Data Structures Laboratory
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C206.1	Implement Linear data structure algorithms.
C206.2	Implement applications using Stacks and Linked lists
C206.3	Implement Binary Search tree and AVL tree operations.
C206.4	Implement graph algorithms.
C206.5	Analyze the various searching and sorting algorithms



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C207	CS3381	Object Oriented Programming Laboratory
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C207.1	Design and develop java programs using object oriented programming concepts
C207.2	Develop simple applications using object oriented concepts such as package, exceptions
C207.3	Implement multithreading, and generics concepts
C207.4	Create GUIs and event driven programming applications for real world problems
C207.5	Implement and deploy web applications using Java

C208	CS3361	Data Science Laboratory
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C208.1	Make use of the python libraries for data science
C208.2	Make use of the basic Statistical and Probability measures for data science
C208.3	Perform descriptive analytics on the benchmark data sets.
C208.4	Perform correlation and regression analytics on standard data sets
C208.5	Present and interpret data using visualization packages in Python.



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C209	GE3361	Professional Development
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C209.1	Use MS Word to create quality documents, by structuring and organizing content for their day to day technical and academic requirements
C209.2	Use MS EXCEL to perform data operations and analytics, record, retrieve data as per requirements and visualize data for ease of understanding
C209.3	Use MS PowerPoint to create high quality academic presentations by including common tables, charts, graphs, interlinking other elements, and using media objects.

C210	CS3452	Theory of Computation
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C210.1	Construct automata theory using Finite Automata
C210.2	Write regular expressions for any pattern
C210.3	Design context free grammar and Pushdown Automata
C210.4	Design Turing machine for computational functions
C210.5	Differentiate between decidable and undecidable problems



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C211	CS3491	Artificial Intelligence and Machine Learning
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C211.1	Use appropriate search algorithms for problem solving
C211.2	Apply reasoning under uncertainty
C211.3	Build supervised learning models
C211.4	Build ensembling and unsupervised models
C211.5	Build deep learning neural network models

C212	CS3492	Database Management Systems
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C212.1	Construct SQL Queries using relational algebra
C212.2	Design database using ER model and normalize the database
C212.3	Construct queries to handle transaction processing and maintain consistency of the database
C212.4	Compare and contrast various indexing strategies and apply the knowledge to tune the performance of the database
C212.5	Appraise how advanced databases differ from Relational Databases and find a suitable database for the given requirement.



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C213	CS3401	Algorithms
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C213.1	Analyze the efficiency of algorithms using various frameworks
C213.2	Apply graph algorithms to solve problems and analyze their efficiency
C213.3	Make use of algorithm design techniques like divide and conquer, dynamic programming and greedy techniques to solve problems
C213.4	Use the state space tree method for solving problems.
C213.5	Solve problems using approximation algorithms and randomized algorithms

C214	CS3451	Introduction to Operating Systems
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C214.1	Analyze various scheduling algorithms and process synchronization.
C214.2	Explain deadlock prevention and avoidance algorithms.
C214.3	Compare and contrast various memory management schemes.
C214.4	Explain the functionality of file systems, I/O systems, and Virtualization
C214.5	Compare iOS and Android Operating Systems



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C215	GE3451	Environmental Sciences and Sustainability
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C215.1	To recognize and understand the functions of environment, ecosystems and biodiversity and their conservation.
C215.2	To identify the causes, effects of environmental pollution and natural disasters and contribute to the preventive measures in the society.
C215.3	To identify and apply the understanding of renewable and non-renewable resources and contribute to the sustainable measures to preserve them for future generations.
C215.4	To recognize the different goals of sustainable development and apply them for suitable technological advancement and societal development.
C215.5	To demonstrate the knowledge of sustainability practices and identify green materials, energy cycles and the role of sustainable urbanization.

C216	CS3461	Operating Systems Laboratory
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C216.1	Define and implement UNIX Commands.
C216.2	Compare the performance of various CPU Scheduling Algorithms.
C216.3	Compare and contrast various Memory Allocation Methods.
C216.4	Define File Organization and File Allocation Strategies.
C216.5	Implement various Disk Scheduling Algorithms.



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C217	CS3481	Database Management Systems Laboratory
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C217.1	Create databases with different types of key constraints
C217.2	Construct simple and complex SQL queries using DML and commands
C217.3	Use advanced features such as stored procedures and triggers and incorporate in GUI based application development.
C217.4	Create an XML database and validate with meta-data (XML schema)
C217.5	Create and manipulate data using NOSQL database.



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THIRD YEAR COURSES (V & VI SEMESTER)

Course Outcomes (COs) :

C301	CS3591	Computer Networks
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C301.1	Explain the basic layers and its functions in computer networks.
C301.2	Understand the basics of how data flows from one node to another
C301.3	Analyze routing algorithms.
C301.4	Describe protocols for various functions in the network
C301.5	Analyze the working of various application layer protocols

C302	CS3501	Compiler Design
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C302.1	Understand the techniques in different phases of a compiler.
C302.2	Design a lexical analyser for a sample language and learn to use the LEX tool.
C302.3	Apply different parsing algorithms to develop a parser and learn to use YACC tool
C302.4	Understand semantics rules (SDT), intermediate code generation and run-time environment.
C302.5	Implement code generation and apply code optimization techniques



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C303	CB3491	Cryptography and Cyber Security
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C303.1	Understand the fundamentals of networks security, security architecture, threats and vulnerabilities
C303.2	Apply the different cryptographic operations of symmetric cryptographic algorithms
C303.3	Apply the different cryptographic operations of public key cryptography
C303.4	Apply the various Authentication schemes to simulate different applications
C303.5	Understand various cyber crimes and cyber security.

C304	CS3551	Distributed Computing
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C304.1	Explain the foundations of distributed systems (K2)
C304.2	Solve synchronization and state consistency problems (K3)
C304.3	Use resource sharing techniques in distributed systems (K3)
C304.4	Apply working model of consensus and reliability of distributed systems (K3)
C304.5	Explain the fundamentals of cloud computing (K2)



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C305	CCS335	Cloud Computing
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C305.1	Understand the design challenges in the cloud.
C305.2	Apply the concept of virtualization and its types
C305.3	Experiment with virtualization of hardware resources and Docker.
C305.4	Develop and deploy services on the cloud and set up a cloud environment.
C305.5	Explain security challenges in the cloud environment.

C306	CCS366	Software Testing and Automation
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C306.1	Understand the basic concepts of software testing and the need for software testing
C306.2	Design Test planning and different activities involved in test planning
C306.3	Design effective test cases that can uncover critical defects in the application
C306.4	Carry out advanced types of testing
C306.5	Automate the software testing using Selenium and TestNG



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C307	MX3084	Disaster Risk Reduction and Management
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C307.1	To impart knowledge on the concepts of Disaster, Vulnerability and Disaster Risk reduction (DRR).
C307.2	To enhance understanding on Hazards, Vulnerability and Disaster Risk Assessment prevention and risk reduction.
C307.3	To develop disaster response skills by adopting relevant tools and technology.
C307.4	Enhance awareness of institutional processes for Disaster response in the country.
C307.5	Develop rudimentary ability to respond to their surroundings with potential Disaster response in areas where they live, with due sensitivity.

C308	CCS356	Object Oriented Software Engineering
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C308.1	Compare various Software Development Lifecycle Models
C308.2	Evaluate project management approaches as well as cost and schedule estimation strategies.
C308.3	Perform formal analysis on specifications.
C308.4	Use UML diagrams for analysis and design
C308.5	Architect and design using architectural styles and design patterns, and test the system



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C309	CS3691	Embedded Systems and IoT
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C309.1	Explain the architecture of embedded processors
C309.2	Write embedded C programs
C309.3	Design simple embedded applications.
C309.4	Compare the communication models in IOT
C309.5	Design IoT applications using Arduino/Raspberry Pi /open platform.

C310	OMA351	Graph Theory
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C310.1	Apply graph models for solving real world problem.
C310.2	Understand the importance the natural applications of trees and graph connectivity.
C310.3	Understand the characterization study of Eulerian graphs and Hamiltonian graphs.
C310.4	Apply the graph colouring concepts in partitioning problems.
C310.5	Apply the standard optimization graph algorithms in solving application problems.



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C311	CCS336	Cloud Service Management
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C311.1	Exhibit cloud-design skills to build and automate business solutions using cloud technologies.
C311.2	Possess Strong theoretical foundation leading to excellence and excitement towards adoption of cloud-based services
C311.3	Solve the real world problems using Cloud services and technologies

C312	CCS367	Storage Technologies
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C312.1	Demonstrate the fundamentals of information storage management and various models of Cloud infrastructure services and deployment
C312.2	Illustrate the usage of advanced intelligent storage systems and RAID
C312.3	Interpret various storage networking architectures - SAN, including storage subsystems and virtualization
C312.4	Examine the different role in providing disaster recovery and remote replication technologies
C312.5	Infer the security needs and security measures to be employed in information storage management



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C313	CCS334	Big Data Analytics
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C313.1	Describe big data and use cases from selected business domains.
C313.2	Explain No SQL big data management.
C313.3	Install, configure, and run Hadoop and HDFS.
C313.4	Perform map-reduce analytics using Hadoop.
C313.5	Use Hadoop-related tools such as HBase, Cassandra, Pig, and Hive for big data analytics.

C314	MX3089	Industrial Safety
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C314.1	Understand the basic concept of safety.
C314.2	Obtain knowledge of Statutory Regulations and standards.
C314.3	Know about the safety Activities of the Working Place.
C314.4	Analyze on the impact of Occupational Exposures and their Remedies
C314.5	Obtain knowledge of Risk Assessment Techniques.



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ANNA UNIVERSITY REGULATION : 2021

FOURTH YEAR COURSES (VII & VIII SEMESTER)

Course Outcomes (COs) :

C401	GE3791	Human Values and Ethics
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C401.1	Identify the importance of democratic, secular and scientific values in harmonious functioning of social life.
C401.2	Practice democratic and scientific values in both their personal and professional life.
C401.3	Find rational solutions to social problems.
C401.4	Behave in an ethical manner in society.
C401.5	Practice critical thinking and the pursuit of truth.

C402	CME365	Renewable Energy Technologies
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C402.1	Discuss the Indian and global energy scenario.
C402.2	Describe the various solar energy technologies and its applications.
C402.3	Explain the various wind energy technologies.
C402.4	Explore the various bio-energy technologies.
C402.5	Discuss the ocean and geothermal technologies.



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C403	OBT355	Biotechnology for Waste Management
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C403.1	To learn the various methods biological treatment
C403.2	To know the details of waste biomass and its value addition
C403.3	To develop the bioconversion processes to convert wastes to energy
C403.4	To synthesize the chemicals and enzyme from wastes
C403.5	To produce the biocompost from wastes
C403.6	To apply the theoretical knowledge for the development of value added products

C404	GE3751	Principles of Management
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C404.1	Upon completion of the course, students will be able to have clear understanding of managerial function like planning, organizing , staffing, leading & controlling.
C404.2	Have same basic knowledge on international aspect of management.
C404.3	Ability to understand management concept of organizing.
C404.4	Ability to understand management concept of directing
C404.5	Ability to understand management concept of controlling.



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C405	CS3711	Summer Internship
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C405.1	Industry Practices, Processes, Techniques, technology, automation and other core aspects of software industry.
C405.2	Analyze, Design solutions to complex business problems.
C405.3	Build and deploy solutions for target platform.
C405.4	Preparation of Technical reports and presentation.

C406	CS3811	Project Work
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C406.1	Gain Domain knowledge and technical skill set required for solving industry/ research problems
C406.2	Provide solution architecture, module level designs, algorithms
C406.3	Implement, test and deploy the solution for the target platform
C406.4	Prepare detailed technical report, demonstrate and present the work



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