



**LORDS INSTITUTE OF ENGINEERING & TECHNOLOGY**  
**Department of Computer Science Engineering**

**Course Outcomes**

Academic Year – 2023-2024

Semester: III (A)

Students will be able to :

CO. No.	Description
<b>Course Outcomes: C211 - Digital Electronics &amp; Computer Organization(U21EC304)</b>	
C211.1	Demonstrate the Basics of Digital Electronics and design various logic gates and simplify Boolean Expressions.
C211.2	Realize and analyse the operation of MUX, decoders, adder, subtractor, BCD adder, magnitude comparator circuit.
C211.3	Study and construction of Sequential logic Circuits. Understand various design of flip flops and to identify and realize circuits using flip-flop.
C211.4	Describe the architecture of modern computer, Bus structures.
C211.5	Analyse the Different memories and evaluate the mapping techniques.
CO. No.	Description
<b>Course Outcomes: C212 - Operations Research(U21ME307)</b>	
C212.1	Understand the ideas of mathematical induction to recursion and recursively defined structures.
C212.2	Prepare the students to have the knowledge of Linear Programming Problem in Operations
C212.3	Research at the end students would be able to understand the concept and develop the models for different applications.
C212.4	Make students understand the concept Replacement models at the end students would able to explain various features and applications of replacement models in real time scenario.
C212.5	Prepare the students to understand theory of Game in operations research at the end students would able to explain application of Game theory in decision making for a conflict
CO. No.	Description
<b>Course Outcomes: C213 - Discrete Mathematics(U21CS301)</b>	
C213.1	Distinguish between Propositional Logic, deriving valid proofs of interface and checking the validity of interfaces.
C213.2	Illustrate by examples the basic terminology of sets, relations, functions and algebraic structures along with their associated operations.
C213.3	Demonstrate basic of counting, principles of permutations, combinations, applying inclusion/exclusion principle and the pigeonhole methodology in solving counting problems.
C213.4	Demonstrate the generating functions, write recurrence relations and apply various techniques solving recurrence relation.

CO.No	Description
<b>Course Outcomes: C214 -Data Structures (U21CS302)</b>	
C214.1	Implement various data structures using arrays, linked lists
C214.2	Develop ADT necessary for solving problems based on Stacks and Queues
C214.3	Implement binary trees, general tree structures, advanced search trees, heaps, graphs.
C214.4	Implement hash functions and handle collisions
C214.5	Implement various kinds of sorting techniques and apply appropriate techniques for solving a given problem.
CO. No.	Description
<b>Course Outcomes:C215 - Python Programming(U21CM301)</b>	
C215.1	Summarize the fundamental concepts of python programming.
C215.2	Outline the control statements and functions by writing python program.
C215.3	Demonstrate file handling operations and packages.
C215.4	Interpret object-oriented programming in python.
C215.5	Apply the suitable libraries to solve simple problems.
CO. No.	Description
<b>Course Outcomes: C216 – Python Programming Lab(U21CM3L1)</b>	
C216.1	Summarize the fundamental concepts of python programming
C216.2	Outline the control statements and functions by writing python programs
C216.3	Demonstrate file handling operations and packages
C216.4	Interpret object oriented programming in python
C216.5	Apply the suitable libraries to solve simple problems
CO. No.	Description
<b>Course Outcomes: C217 – Data Structures Lab(U21CS3L1)</b>	
C217.1	Understand essential concepts of simple linear and nonlinear data structures.
C217.2	Analyze and implement programming skills to implement sorting and searching algorithms
C217.3	Apply the suitable data structures for the given real world problems.
C217.4	Acquire knowledge in practical applications of data structures.
C217.5	Provide solutions for various graphical concepts.
<b>Course Outcomes: C218 - MATLAB(U21EC3L4)</b>	
C218.1	Learn features of Mat lab as a programming language, its use as a simulation tool, and write simple programs to solve Scientific, Mathematics, and Engineering problems. 2. 3. 4. 5. Use basic flow control functions efficiently.
C218.2	Generate Scripts and functions, and interactive computations in Mat lab development environment.

C218.3	Perform and Compute different operations using Matlab.
C218.4	Use basic flow control functions efficiently.
C218.5	Create 2D and 3D plotting functions.



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Semester: V (A)

Students will be able to :

CO. No.	Description
<b>Course Outcomes: C311-Automata Theory, Languages &amp; Computation(U21CM501)</b>	
C311.1	Gain knowledge of the various abstract machines
C311.2	Use regular languages and regular expression for constructing different finite state machines
C311.3	Understand and design different types of grammars
C311.4	Construct Push down Automata
C311.5	Construct Turing Machine
CO. No.	Description
<b>Course Outcomes: C312 – Design &amp; Analysis of Algorithms(U21CS501)</b>	
C312.1	Understand basic concepts of asymptotic notation to analyses time complexity of given algorithm
C312.2	Differentiate between divide-and-conquer and transfer-and-conquer methods
C312.3	Apply various greedy and dynamic programming techniques on real world problems
C312.4	Explain the difference between NP-complete and NP-hard
C312.5	Apply the concepts of tries to compress a data set of strings in real world problems
CO. No.	Description
<b>Course Outcomes: C313 - Operating Systems (U21CS503)</b>	
C313.1	Understand the basic concepts and functions of operating systems.
C313.2	Understand I/O management and File systems.
C313.3	Appreciate the need of access control and protection in an operating system.
C313.4	Compare and illustrate various process scheduling Algorithms.
C313.5	Perform administrative tasks on Linux Servers

CO. No.	Description
<b>Course Outcomes: C14 - Basics of Data Science (U21CS506)</b>	
C314.1	Understand the basics concepts of Data Science & will be able to categorize the data.
C314.2	Understand the data sets & will be able to extract data sets.
C314.3	Understand the fundamentals & principles of Data Mining.
C314.4	Understands the concepts and procedures of how to extract data by Pre-processing.
C314.5	Understands the R-Programming & will be able to represent data using R Language.
CO. No.	Description
<b>Course Outcomes: C315 – Disaster Preparedness and Management (U21CE509)</b>	
C315.1	Apply the concept of disaster management to evaluate a disaster situation.
C315.2	Classify the various categories of disasters and their specific characteristics.
C315.3	Select appropriate pre disaster, during disaster and post disaster measures and framework.
C315.4	Apply the geo informatics technology in disaster situation.
C315.5	Identify the disaster management acts and framework specific to India relevant to a situation.
CO. No.	Description
<b>Course Outcomes: C316 – Design &amp; Analysis of Algorithms Lab (U21CS5L1)</b>	
C316.1	Translate end-user requirements into system and software requirements.
C316.2	Generate a high-level design of the system from software requirements.
C316.3	Identify the risks associated with the software developed.
C316.4	Design the test case to test the software developed.
C316.5	Experience of testing problems and will be able to develop a simple testing report.
CO. No.	Description
<b>Course Outcomes: C317 – Operating Systems Lab (U21CS5L2)</b>	
C317.1	Evaluate the performance of different types of CPU scheduling algorithms.
C317.2	Implement producer – consumer problem, reader – writers problem, Dining philosopher’s problem.
C317.3	Simulate Banker’s algorithm for deadlock avoidance.
C317.4	Implement paging replacement and disk scheduling techniques.
C317.5	Use different system calls for writing application programs.

CO. No.	Description
<b>Course Outcomes:C318– Internship(U21CS5P1)</b>	
C318.1	Design and develop a small and simple product in hardware or software.
C318.2	Complete the task or realize a pre specified target, with a specified scope.
C318.3	Learn to find alternate viable solutions for a given problem and evaluate these alternatives with reference to pre specified criteria.
C318.4	Gain knowledge of working practices withing industrial / R&D environments.
C318.5	Implement the selected solution and document the same



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Semester: VII (OU)

CO. No.	Description
<b>Course Outcomes:C411- Distributed Systems(PC701CS)</b>	
C411.1	List the principles of distributed systems and describe the problems and challenges associated with these principles
C411.2	Know about interposes communication and remote communication.
C411.3	Know Distributed Computing techniques, Synchronous and Processes.
C411.4	Know Distributed File Systems Apply Distributed web-based system. Understand the importance of security in distributed systems
C411.5	Know distributed service oriented architecture.
	Know about emerging trends in distributed computing.
CO. No.	Description
<b>Course Outcomes:C412 – Big Data Analytics (PE736CS)</b>	
C412.1	Demonstrate big data and use cases from selected business domains.
C412.2	Apply the knowledge of NoSQL big data management and experiment with Install, configure, and run Hadoop and HDFS
C412.4	Analyze map-reduce analytics using Hadoop.
C412.5	Adapt Hadoop related tools such as HBase, ZooKeeper, Pig, and Hive for big data Analytics
CO. No.	Description
<b>Course Outcomes: C413 – Software Quality and Assurance (PE 744 CS)</b>	
C413.1	Judge the software quality factors for a defined project
C413.2	Integrate the quality activities in the project life during implementation
C413.3	Propose some corrective and preventive actions for maintaining software quality
C413.4	Manage components of software quality in the project life cycle
C413.5	Process SQA management standards in a project
CO. No.	Description
<b>Course Outcomes: C414– Start-Up Entrepreneurship (OE701ME)</b>	
C414.1	Understand Indian Industrial Environment, Entrepreneurship and Economic growth, Small and Large Scale Industries, Types and forms of enterprises.
C414.2	Identify the characteristics of entrepreneurs, Emergence of first generation entrepreneurs, Conception and evaluation of ideas and their sources.

C414.3	Practice the principles of project formulation, Analysis of market demand, Financial and profitability analysis and Technical analysis.
C414.4	Understand the concept of Intellectual Property Rights and Patents Comprehend the aspects of Start-Ups.

CO. No.	Description
<b>Course Outcomes: C415 – Project Work-1(PW752IT)</b>	
C415.1	Demonstrate the ability to synthesize and apply the knowledge and skills acquired in the academic program to the real-world problems.
C415.2	Evaluate different solutions based on economic and technical feasibility
C415.3	Effectively plan a project and confidently perform all aspects of project management
C415.4	Demonstrate effective written and oral communication skills
C415.5	Analyse the problem-solving skills, critical thinking, and the ability to tackle engineering challenges.

CO. No.	Description
<b>Course Outcomes: C416 – Summer Internship(SI651IT)</b>	
C416.1	Get Practical experience of software design and development, and coding practices within Industrial/R&D Environments.
C416.2	Gain working practices within Industrial/R&D Environments.
C416.3	Prepare reports and other relevant documentation
C416.4	Create and apply the soft skills towards further Learning in Academics.
C416.5	Creates a professional network within industry. Connecting with professionals, mentors, and colleagues for future job opportunities, provide valuable insights, and offer guidance as you navigate your career path

