



# LORDS INSTITUTE OF ENGINEERING & TECHNOLOGY

## DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

AY:20-21

### COURSE OUTCOMES

#### Semester: III Semester

Name of the Course: Environmental Science

Course.No	Outcomes
C211.01	Adopt environmental ethics to attain sustainable development.
C211.02	Develop an attitude of concern for the environment.
C211.03	Conservation of natural resources and biological diversity.
C211.04	Creating awareness of Green technologies for nation's security.
C211.05	Imparts awareness for environmental laws and regulations.

Name of the Course: Essance of Indian Traditional Knowledge

Course.No	Outcomes
C212.01	Gain knowledge of Indian Philosophical Foundation.
C212.02	Understand all religions and their philosophy.
C212.03	Comprehend Indian Languages, Culture and Literature.
C212.04	Appreciate Indian Fine Artistic skills.
C212.05	Familiarize with Indian Education System, Ethics, and Moral Values
C212.06	Explore the Science and Scientists of Medieval and Modern India.

Name of the Course: Operations Research

Course.No	Outcomes
C213.01	<b>Annotating</b> the concepts, scope, need and phases of operations research. Preparing the L.P.P and derive optimal solutions to linear programming problems by graphical method, simplex method, Big-M method and two phase method.
C213.02	<b>Preparing</b> the Transportation and Assignment problems and determining optimum solutions for transportation, Assignment and travelling salesman problems.
C213.03	<b>Calculating</b> minimum processing times for sequencing of n-jobs-2/3/m & 2- jobs-n machines and best replacement time for deteriorate items when value of money is counted & not counted.
C213.04	<b>Illustrating</b> a game theory for pure and mixed strategy under competitive environment and preparing an inventory model for EOQ considering single & multiple price breaks.
C213.05	<b>Illustrating</b> the waiting line problems for M/M/1 and M/M/K queuing models and Dynamic Programming problems for shortest path & L.P.P model and
C213.06	<b>Assessing</b> the applications of simulation process for queuing & inventory problems.

**Name of the Course: BIOLOGY FOR ENGINEERS**

Course.No	Outcomes
C214.01	Apply biological engineering principles, procedures needed to solve real world problems
C214.02	Understand the fundamentals of living things, their classification, cell structure & biochemical constituents.
C214.03	Apply the concept of plant, animal and microbial systems and growth in real life.
C214.04	Comprehend the genetics and the immune system.
C214.05	Know the cause, symptoms, diagnosis and treatment of common diseases.
C214.06	Apply the basic knowledge of the application of biological systems in relevant industries.

**Name of the Course: Basic Electronics**

Course.No	Outcomes
C215.01	Obtain the V - I characteristics of diode and analyze various diode applications like rectifiers and regulators.
C215.02	Analyse the construction & working of active devices like BJT & FET in various modes.
C215.03	Recognize the type of feedback and analyze its effect on amplifier characteristics and calculate the frequency of oscillation for different types of oscillator circuits.
C215.04	Analyze and design different circuits using Ideal Op Amps; Design simple digital circuits using logic gates.
C215.05	Understand the principle of operation & applications of electronic devices, transducers.
C215.06	Analyse different data acquisition systems and data converters.

**Name of the Course: Digital Electronics**

Course.No	Outcomes
C216.01	Understand the Basics of Digital Electronics and concepts related to Digital Circuits design.
C216.02	Design various logic gates and simplify Boolean Expressions.
C216.03	Realize and analyse the operation of MUX, decoders, adder, subtractor, BCD adder, magnitude comparator circuit.
C216.04	Study and construction of Sequential logic Circuits.
C216.05	Understand various design of flip flops and to identify and realize circuits using flip-flop.
C216.06	Understand the concepts of programmable logic devices, shift registers, counters, FSM and various memory devices.

**Name of the Course: Data Structures and Algorithms**

Course.No	Outcomes
C217.01	Understand the importance of abstract data type and implementing the concepts of data structure using abstract data type.
C217.02	Evaluate an algorithm by using algorithmic performance and measures
C217.03	Apply Linear data structures such as stacks, queues, linked lists and develop applications using them.
C217.04	Apply Non-Linear data structures such as trees and develop applications using them.
C217.05	Determine the suitability of the standard algorithms: Searching, Sorting and Traversals.
C217.06	Model real world problems using graphs.

**Name of the Course: Discrete Mathematics**

Course.No	Outcomes
C218.01	Illustrate by examples the basic terminology of functions, relations, and sets and demonstrate knowledge of their associated operations.
C218.02	Understand basics of counting, apply permutations and combinations to handle different types of objects.
C218.03	Describe and use recursively-defined relationships to solve problems using generating functions.
C218.04	Analyse semi group, monoid group and abelian group with suitable examples and appreciate group theory applications in computer arithmetic.
C218.05	Demonstrate in practical applications the use of basic counting principles of permutations, combinations, inclusion/exclusion principle and the pigeon hole methodology.
C218.06	Illustrate by examples the basic terminology of functions, relations, and sets and demonstrate knowledge of their associated operations.

**Name of the Course: Programming Languages**

Course.No	Outcomes
C219.01	Ability to express syntax and semantics in formal notation.
C219.02	Ability to apply suitable programming paradigm for the application.
C219.03	Gain Knowledge and comparison of the features programming languages
C219.04	Program in different language paradigms and evaluate their relative benefits.
C219.05	Identify and describe semantic issues associated with variable binding, scoping rules, parameter passing, and exception handling.
C219.06	Understand the design issues of object-oriented and functional languages.

**Name of the Course: Basic Electronics Lab**

Course.No	Outcomes
C2110.01	Study and understand about CRO and Resistors, diodes, transistor components and their Applications.
C2110.02	Analyze the Characteristics of Bipolar Junction Transistor and Field Effect Transistor.
C2110.03	Analyze the RC phase shift oscillator and Hartley and Colpitts Oscillators and its applications.
C2110.04	Design and analyze the BJT CE Amplifier and Operational Amplifier and its applications.
C2110.05	Construct and analyze the Full wave rectifier with and without filter.
C2110.06	Study and measurement of Strain gauge.

**Name of the Course: Data Structures and Algorithms Lab**

Course.No	Outcomes
C2111.01	Understand and Implement the abstract data type and reusability of a particular data structure.
C2111.02	Implement linear data structures such as stacks, queues using array and linked list.
C2111.03	Understand and implements non-linear data structures such as trees, graphs
C2111.04	Implement various kinds of searching, sorting and traversal techniques and know when to choose which technique.
C2111.05	Understanding and implementing hashing techniques
C2111.06	Decide a suitable data structure and algorithm to solve a real world problem.

**Name of the Course: Advanced Computer Skills Lab**

<b>Course.No</b>	<b>Outcomes</b>
<b>C2112.01</b>	Implement basic syntax in python.
<b>C2112.02</b>	Analyse and implement different kinds of OOP concept in real world problems.
<b>C2112.03</b>	Implement MATLAB operations and graphic functions.
<b>C2112.04</b>	Implement object oriented concepts,
<b>C2112.05</b>	Implement database and GUI applications
<b>C2112.06</b>	Implement basic syntax in python.

**\*List Courses as per the order in university syllabus copies**



# LORDS INSTITUTE OF ENGINEERING & TECHNOLOGY

## DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

AY:20-21

### COURSE OUTCOMES

**Year : III Year Semester: I Semester**

**Name of the Course: Formal Languages and Automata Theory**

Course.No	Outcomes
C311.01	Able to understand the concept of abstract machines and their power to recognize the languages.
C311.02	Apply finite state machines for modeling and solving computing problems.
C311.03	Able to design context free grammars for formal languages.
C311.04	Distinguish between decidability and undecidability.
C311.05	Able to gain proficiency with mathematical tools and formal methods.

**Name of the Course: Software Engineering**

Course.No	Outcomes
C312.01	Decompose the given project in various phases of a lifecycle.
C312.02	Choose appropriate process model depending on the user requirements.
C312.03	Perform various life cycle activities like Analysis, Design, Implementation, Testing and Maintenance.
C312.04	Know various processes used in all the phases of the product.
C312.05	Apply the knowledge, techniques, and skills in the development of a software product.

**Name of the Course: Computer Networks**

Course.No	Outcomes
C313.01	<b>Explain &amp; Design</b> the various reference models and networks.
C313.02	<b>Identify</b> the different types of network devices and Multiple Access Protocols.
C313.03	<b>Use</b> IP addressing Scheme and to interconnect various networks and Routing mechanism
C313.04	<b>Explain</b> transport layer protocols: TCP, UDP.
C313.05	<b>Explain and use</b> various application layer protocols: HTTP, DNS, and SMTP, FTP etc.
C313.06	<b>Understand</b> the World Wide Web concepts.

**Name of the Course: Web Technologies**

Course.No	Outcomes
C314.01	Explain internet related technologies. Systematic way of developing a website.
C314.02	Design dynamic and interactive web pages by embedding Java Script code in HTML. Use Java Script to validate user input.
C314.03	Use of different types of CSS to design web pages.
C314.04	Use CGI and Perl. VB Script and Efficiently write Java applets.

<b>C314.05</b>	Explain the fundamentals of. ASP, AJAX, Web Hosting.
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**Name of the Course: Data Analytics**

<b>Course.No</b>	<b>Outcomes</b>
<b>C315.01</b>	Understand the impact of data analytics for business decisions and strategy
<b>C315.02</b>	Carry out data analysis/statistical analysis
<b>C315.03</b>	To carry out standard data visualization and formal inference procedures
<b>C315.04</b>	Design Data Architecture
<b>C315.05</b>	Understand various Data Sources

**Name of the Course: Advanced Operating Systems**

<b>Course.No</b>	<b>Outcomes</b>
<b>C316.01</b>	Understand the concept of Distributed Systems and can be able to Analyze the design issues of distributed operating systems.
<b>C316.02</b>	Demonstrate the different architectures used in Distributed OS and analyze their design issues.
<b>C316.03</b>	Differentiate the mutual exclusion algorithms
<b>C316.04</b>	Distinguish the design issues of multi-processor operating systems.
<b>C316.05</b>	Identify the requirements Distributed File System and Distributed Shared Memory.
<b>C316.06</b>	Implement the load balancing algorithms.

**Name of the Course: Computer Networks & Web Technology Lab**

<b>Course.No</b>	<b>Outcomes</b>
<b>C317.01</b>	Implement data link layer framing methods
<b>C317.02</b>	Analyse error detection and error correction codes
<b>C317.03</b>	Implement and analyse routing and congestion issues in network design
<b>C317.04</b>	Implement Encoding and Decoding Techniques used in presentation layer
<b>C317.05</b>	Familiar with various network tools

**Name of the Course: Software Engineering Lab**

<b>Course.No</b>	<b>Outcomes</b>
<b>C318.01</b>	Able to Plan a software engineering process lifecycle.
<b>C318.02</b>	Able to elicit, analyze and specify software requirements.
<b>C318.03</b>	Able to Analyze and translate a specification into a design.
<b>C318.04</b>	Able to Built an SRS documents :Realize design practically, using an appropriate software engineering
<b>C318.05</b>	Develop prototype model for a given case study using modern engineering tools.

**Name of the Course: Advanced Communications Skills Lab**

<b>Course.No</b>	<b>Outcomes</b>
<b>C319.01</b>	Improve the students' fluency in English, through a well-developed vocabulary
<b>C319.02</b>	Enable them to listen to English spoken at normal conversational speed by educated English speakers and respond appropriately
<b>C319.03</b>	Can communicate their ideas relevantly and coherently in writing.
<b>C319.04</b>	Analyze different socio-cultural and professional contexts.

**Name of the Course: Intellectual Property Rights**

<b>Course.No</b>	<b>Outcomes</b>
<b>C3110.01</b>	knowledge about four types of intellectual property right and different international organizations.
<b>C3110.02</b>	knowledge on trademarks and can apply in trademark registration.
<b>C3110.03</b>	knowledge on copyrights and can apply ownership rights.
<b>C3110.04</b>	Evaluate different types of patents and can apply in ownership rights and transfer
<b>C3110.05</b>	Examine false advertising in the market and trade secret protection.
<b>C3110.06</b>	Evaluate critical analysis arguments relating to the new development in intellectual property rights.

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# LORDS INSTITUTE OF ENGINEERING & TECHNOLOGY

## DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

AY:20-21

### COURSE OUTCOMES

**Year : IV Year**

**Semester: I Semester**

**Name of the Course: Data Mining**

Course.No	Outcomes
C411.01	Interpret the concepts of Object-Oriented Programming used in Python.
C411.02	Demonstrate proficiency in handling File Systems and Exceptions.
C411.03	Understand how to use Regular Expressions and Multithreaded programming
C411.04	Implement exemplary applications related to GUI and WebServices
C411.05	Create Databases in Python.

**Name of the Course: Principle of Programming Language**

Course.No	Outcomes
C412.01	Express syntax and semantics in formal notation
C412.02	<b>Understanding</b> the programming paradigms of modern programming languages
C412.03	Understand the concepts of ADT and OOP.
C412.04	<b>Understand</b> the program in different language paradigms and evaluate their relative benefits.
C412.05	Understand the concepts of concurrency control and exception handling

**Name of the Course: Python Programming**

Course.No	Outcomes
C413.01	Interpret the fundamental Python syntax and semantics and be fluent in the use of Python control flow statements.
C413.02	Express proficiency in the handling of strings and functions.
C413.03	Determine the methods to create and manipulate Python programs by utilizing the data structures like lists, dictionaries, tuples and sets.
C413.04	Identify the commonly used operations involving file systems and regular expressions.
C413.05	Articulate the Object-Oriented Programming concepts such as encapsulation, inheritance and polymorphism as used in Python.

**Name of the Course: Distributed Systems**

Course.No	Outcomes
C414.01	<b>Ability</b> to comprehend and design a new distributed system with the desired features
C414.02	Understanding theoretical concepts, namely, virtual time, agreement and consensus protocols.
C414.03	<b>Analyze</b> IPC, Group Communication & RPC Concepts.
C414.04	<b>Identify</b> problems using the DFS and DSM Concepts.
C414.05	<b>Understanding</b> the concepts of transaction in distributed environment and associated concepts, namely, concurrency control, deadlocks and error recovery.

**Name of the Course: Cloud Computing**

Course.No	Outcomes
C415.01	Understand various service delivery models of a cloud computing architecture.
C415.02	Evaluate the ways in which the cloud can be programmed and deployed combinations.
C415.03	Understanding cloud service providers.
C415.04	Analyzing the Infrastructure as a Service in Cloud computing
C415.05	Apply cloud programming and software environments in different systems

**Name of the Course: Data Mining Lab**

Course.No	Outcomes
C416.01	Ability to understand various kinds of Tools
C416.02	Demonstrate Association, Classification Techniques
C416.03	Demonstrate Clustering and Outlier Analysis
C416.04	Ability to add mining algorithm as component to the existing Tools
C416.05	Ability to apply Mining Techniques for realistic data
C416.06	Knowledge about Real time Data Mining Application

**Name of the Course: Python Programming Lab**

Course.No	Outcomes
C417.01	Write, Test and Debug Python Programs
C417.02	Implement Conditionals and Loops for Python Programs
C417.03	Use functions and represent Compound data using Lists, Tuples and Dictionaries
C417.04	Read and write data from & to files in Python and develop Application using Pygame

**Name of the Course: Industry Oriented Mini Project**

Course.No	Outcomes
C418.01	Acquire practical knowledge in spite of theoretical concepts he/she acquired (Application).
C418.02	Recognise uncertainty of open ended investigations like technical problems and difficulties in collecting the required data (knowledge).
C418.03	Differentiate open ended projects and set of practicals (Comparison) .
C418.04	Develop their communication and team work skills (synthesis).
C418.05	Asses different tools /soft ware's and protocols which he used in the project (Evaluation).
C418.06	Simulate their Software results and dump into hardware for testing (Analysis)

**Name of the Course: Seminar**

Course.No	Outcomes
C419.01	Improve oral and written communication skills.
C419.02	Explore an appreciation of the self in relation to its larger diverse social and academic contexts.
C419.03	Identify, understand and discuss current, real-world issues
C419.04	Distinguish and integrate differing forms of knowledge and academic disciplinary approaches
C419.05	Apply principles of ethics and respect in interaction with others.

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