



LENDI INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Autonomous)

(Approved by A.I.C.T.E & Affiliated to JNTU, Kakinada)

Accredited by NAAC with “A” Grade & NBA

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DEPARTMENT OF SCIENCE AND HUMANITIES

List Of Course Outcomes (CO)

Regulations: R19

Branch: CSE

COURSECODE &NAME	CO	CO STATEMENT
SEMESTER-1(I-I)-R19		
C101 Numerical Method and Ordinary Differential Equations	C101.1	<i>Apply</i> numerical methods and implement interpolation techniques to solve real-world problems in engineering.
	C101.2	<i>Apply</i> numerical methods to solve ordinary differential equations that arise in various engineering fields.
	C101.3	<i>Utilize</i> mean value theorems to real life problems.
	C101.4	Solve the first order ordinary differential equations related to various engineering fields.
	C101.5	<i>Solve</i> the higher order differential equation and analyze physical situations.
C102 Essentials of Electrical & Electronics Engineering	C102.1	<i>Apply</i> concept of KVL/KCL and network theorems in solving electrical circuits.
	C102.2	<i>Measure</i> the performance quantities such as losses, efficiency of DC machines and transformers.
	C102.3	<i>Measure</i> the performance quantities such as losses, efficiency of transformers and Induction motor.
	C102.4	<i>analyze</i> Understand the importance and applications of p-n junction diode & Rectifiers.
	C102.5	<i>Understand</i> the configurations and applications of Op-Amps.
C103 English	C103.1	<i>Understand</i> the value of Human Conduct for career development through life skills: Ethics & Values and use root words and Prepositions without errors. Gain reading skills for comprehension, specific information, gist, and pleasure through extensive reading.
	C103.2	<i>Observe</i> the significance of imagery in poetry to use it in real-time contexts and learn to use and misuse of Articles, Prefixes, Suffixes, and Punctuation. Gain reading skills for comprehension, specific information, gist, and pleasure through extensive reading.
	C103.3	<i>Acquire</i> conversation skills through drama and enhance the correct use of Nouns, Pronouns, Verbs and Concord to write

		paragraphs effectively. Gain reading skills for comprehension, specific information, gist, and pleasure through extensive reading.
	C103.4	<i>Develop</i> reading for inspiration, interpretation & innovation and learn to use modifiers, synonyms and antonyms to write essays effectively. Gain reading skills for comprehension, specific information, gist, and pleasure through extensive reading.
	C103.5	<i>Learn</i> meaningful use of language by avoiding meaningless clichés, bureaucratic euphemisms and academic jargon in order to acquire the skill of summarizing. Gain reading skills for comprehension, specific information, gist, and pleasure through extensive reading.
C104 Applied Chemistry	C104.1	Distinguish thermoplastics, thermosetting plastics and elastomers.
	C104.2	Discuss the working principle and applications of primary, secondary battery cells and fuel cells.
	C104.3	Compare the working principle and materials used in Floppy, CD and pen drive.
	C104.4	Demonstrate the working principle of Photo Voltaic Cell.
	C104.5	Illustrate the preparation, properties and applications of Nano materials.
C105 Problem Solving and Programming using C	C105.1	Develop algorithms and flowcharts and also Understand the compilation, debugging, execution and writing of basic C programs
	C105.2	Develop C Programs using control and iterative statements
	C105.3	Develop C programs using Arrays and functions
	C105.4	Apply the knowledge of strings and pointers in programming
	C105.5	Comprehend file handling and user defined data types
C106 Communicative English Lab -I	C106.1	Enhance pronunciation with befitting tone for clarity in a speech to communicate language effectively.
	C106.2	Participate in short conversations in routine contexts on topics of interest and ask questions and make requests politely
	C106.3	Listen for specific information, gist, note-taking, note-making and comprehension and develop convincing and negotiating skills through debates
	C106.4	Acquire effective strategies for good writing and demonstrate the same in summarizing and reporting
	C106.5	Gain knowledge of grammatical structures and vocabulary for day-to-day successful conversations.
C107 Problem Solving and Programming using C Lab	C107.1	Learn Basic computer Installations and Office Tools, Document and present the algorithms, flowcharts and programs in form of user-manual and also apply and practice logical ability to solve the problems
	C107.2	Understand C programming development environment, compiling, debugging, and linking and executing a program using the development environment
	C107.3	Analyzing the complexity of problems modularize the problems into small modules and then convert them into programs
	C107.4	Understand and apply the in-built functions and customized functions for solving the problems.

	C107.5	Understand and apply the pointers, memory allocation techniques and use of files for dealing with variety of problems.
C108 Essentials of Electrical & Electronics Engineering Lab	C108.1	Prove laws and theorems
	C108.2	Determine the characteristics of DC Machines
	C108.3	Identify the performance of DC shunt motors
	C108.4	Analyze the V-I characteristics of diode
	C108.5	Design MOSFET, Inverting and Non-Inverting Amplifier using PSPICE
C109 Environmental Science	C109.1	<i>Understand</i> about the environment its structure and components, along with the natural resources along with various impacts of over utilization of it.
	C109.2	<i>Illustrate</i> about ecosystem and know the importance of the biodiversity along with biodiversity of India and identify its threats and conservation practices to protect it.
	C109.3	<i>Understands</i> about various attributes of different types of pollution and their impacts on the environment and control methods along with waste management practices.
	C109.4	<i>Relate</i> the current environmental impacts with the societal problems. Identify the environmental legislation of India towards sustainable development.
	C109.5	<i>Identify</i> the current population growth with their impacts and apply the knowledge how to manage environment issues.
SEMESTER-1(I-II)-R19		
C110 Linear Algebra and Multivariable Calculus	C110.1	<i>Apply</i> matrix methods to solve engineering applications modeled as linear systems of equations.
	C110.2	<i>Analyze</i> the solutions of engineering problems related to dynamic systems using eigenvalues and eigenvectors.
	C110.3	<i>Apply</i> multiple integral methods to find the areas and volumes of solids using double and triple integrals.
	C110.4	<i>Apply</i> multi variable calculus to solve optimization problem.
	C110.5	<i>Analyze</i> the behaviour of fluid flow, electromagnetic fields, and other physical phenomena in engineering using vector differentiation and vector integration.
C111 Mathematical Methods for Computer Science	C111.1	<i>Apply</i> elementary number theory concepts, including the divisibility properties of numbers to perform modulo arithmetic in crypto graphic applications.
	C111.2	<i>Determine</i> the suitable curve equation that fits the given data using method of least squares.
	C111.3	<i>Find</i> the Fourier series of periodic functions and evaluate Fourier integral, Fourier transform and inverse Fourier of a given function.
	C111.4	<i>Apply</i> the Laplace transform to solve differential equations and integral equations that arise in various engineering fields.
	C111.5	<i>Apply</i> the partial differential equations to solve various engineering problems.
	C112.1	Understand the basic fundamentals of OOP language and its learning

C112 OPS through C++		environment
	C112.2	Acquire the knowledge of classes, objects and member functions, constructors, Destructors
	C112.3	Analyze the concepts of Operator overloading, Inheritance
	C112.4	Apply the concept of pointers, polymorphism, and virtual functions to solve complex problems.
	C112.5	Design generic programs using templates and handle different errors through exceptions and also implement data structures like stack and queue using Standard Template Library (STL).
C113 Digital Logic Design	C113.1	Able to define different number systems, arithmetic operation of binary numbers, 2's complement representation and its operations
	C113.2	To Familiarize Boolean algebra theorems and simplify the given logic function to the minimum number of literals. Minimization of logic functions by using different levels of K-Map methods and design using logic gates.
	C113.3	Develop different combinational logic circuits for the realization of digital logic circuits
	C113.4	Design various synchronous and asynchronous sequential circuits using Flip-Flops.
	C113.5	Design various registers and counters using different flip flops and also develop different programmable logic devices using logic circuits
C114 Applied Physics	C114.1	<i>Interpret</i> the interaction of optic energy with matter.
	C114.2	<i>Explain</i> the properties of polarization and Lasers.
	C114.3	<i>Classify</i> the given dielectric and semiconductor material.
	C114.4	<i>Analyze</i> Electromagnetic wave propagation in non-conducting medium.
	C114.5	<i>Apply</i> the principles of Fiber Optics and nano materials to communication.
C115 Engineering Drawing	C115.1	Apply the basics of engineering drawing to construct the polygons and curves.
	C115.2	Draw the orthographic projections of points and lines.
	C115.3	Draw the projections of planes in various conditions.
	C115.4	Draw the projections of regular solids inclined to one of the planes.
	C115.5	Imagine the isometric views of orthographic views and vice versa.
C116 Applied Science Lab	C116.1	<i>Apply</i> the working principles of laboratory experiments in optics, electronics, pH meter, Viscometer, Conductivity meter, volumetric titrations and perform the experiments using required apparatus.
	C116.2	<i>Compute</i> the required parameter by suitable formula using experimental values (observed values) in optics, electronics, pH meter, Viscometer, Conductivity meter and volumetric titration experiments
	C116.3	<i>Analyze</i> the experimental results through graphical interpretation.
	C116.4	<i>Recognize</i> the required precautions to carry out the experiment and handling the apparatus in the laboratory.
	C116.5	<i>Demonstrate</i> the working principles, procedures and

		applications.
C117 Communicative English Lab -II	C117.1	<i>Acquire</i> Listening skills for answering questions, make formal presentations without graphical elements, prioritise information from reading texts, paraphrase short academic texts and get awareness about plagiarized content and academic ethics.
	C117.2	<i>Comprehend</i> academic lectures by taking notes, make formal presentations on academic topics using PPT slides with relevant graphical elements, distinguish facts from opinions while reading, write formal letters and emails and use a range of vocabulary in formal speech and writing.
	C117.3	<i>Participate</i> in group discussions using appropriate language strategies, comprehend complex texts, produce logically coherent argumentative essays and use appropriate vocabulary to express ideas and opinions.
	C117.4	<i>Draw</i> inferences and conclusions using prior knowledge and verbal cues, express thoughts and ideas accurately and fluently, develop advanced reading skills for a deeper understanding of texts, prepare a CV with a cover letter to seek internship/ job, and understand the use of passive voice in academic writing.
	C117.5	<i>Develop</i> advanced listening skills for in-depth understanding of academic texts, make presentations collaboratively, understand the structure of Project Reports and use grammatically correct structures with a wide range of vocabulary.
C118 OOPS through C++ Lab	C118.1	<i>Understand</i> the basic fundamentals of OOP language and its learning environment.
	C118.2	<i>Acquire</i> the knowledge of classes, objects and member functions, constructors, Destructors.
	C118.3	<i>Analyze</i> the concepts of Operator overloading, Inheritance.
	C118.4	<i>Apply</i> the concept of pointers, polymorphism, and virtual functions to solve complex problems.
	C118.5	<i>Design</i> generic programs using templates and handle different errors through exceptions and Implement data structures like stack, queue using Standard Template Library.
C119 MAT LAB for Computational Methods	C119.1	<i>Construct</i> and apply small programs in MATLAB to mathematical problems.
	C119.2	<i>Develop</i> a program to find a real root of an equation using various numerical methods.
	C119.3	<i>Develop</i> programs to find the interpolation values using Lagrange's and Newton's interpolation formulae for a given set of points.
	C119.4	<i>Develop</i> programs to find solutions of ordinary differential equations using various numerical methods.
	C119.5	<i>Develop</i> programs to solve system of linear equations using Gauss elimination and iteration methods.