



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

COURSE OUTCOMES (COs)

Semester: III

Course Name :Energy & Environmental Engineering		Course Code:ES-301
Students will be able to:		
CO1:	Illustrate environmental energy systems and renewable and non-renewable energy resources.	
CO2:	Describe the structure and functions of energy flow ecosystems.	
CO3:	Explain the concept of biodiversity and its conservation.	
CO4:	Identify the causes, effects and control measures of environmental pollution.	
CO5:	Analyze the environmental ethics and the Environmental Protection Act.	

Course Name: Discrete Structure		Course Code:CS-302
Students will be able to:		
CO1:	Understand set algebra and operations, and identify different types of Relations, mathematical induction.	
CO2:	Explain algebraic structure, Group, abelian groups, permutation groups, and the concept of Ring and fields.	
CO3:	Understand propositional logic, construct truth tables and determine the validity of logical arguments.	
CO4:	Explain graphs and types of graphs, Apply graph theory to solve problems like shortest paths.	
CO5:	Explain lattices and solve counting problems using permutations and combinations, recurrence relations.	



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Course Name: Data Structure		Course Code: CS-303
Students will be able to:		
CO1:	Explain the fundamentals of data structures and their applications essential for programming and problem solving.	
CO2:	Apply linear data structures.	
CO3:	Apply non linear data structures.	
CO4:	Construct graph structure and Illustrate various operations and algorithms on nonlinear and their applicability.	
CO5:	Analyze the various sorting and searching algorithms, and understand the hashing technique.	

Course Name: Digital Systems		Course Code: CS-304
Students will be able to:		
CO1:	Have a radical understanding of the elemental concepts and techniques utilized in digital electronics.	
CO2:	To know and examine the structure of various combinational circuits and their application in digital design.	
CO3:	The power to know, analyze and style various sequential circuits.	
CO4:	The power to spot and stop various hazards and timing problems during a digital design.	
CO5:	To develop skill to create, and troubleshoot digital circuit.	



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Course Name: Object-Oriented Programming & Methodology		Course Code: CS-305
Students will be able to:		
CO1:	Understand the difference between the top-down and bottom-up Approach.	
CO2:	Apply programming fundamentals, including if—else statement, arrays, strings, and control structures and recursion.	
CO3:	Analyze the concepts of class, method, constructor, instance, data abstraction, inheritance, function abstraction, overloading, overriding and polymorphism.	
CO4:	Design programs to implement features such as Overriding, Operator Overloading, Polymorphism etc.	
CO5:	Experiment and design programs on exceptions, Multithreading and case study on different projects.	

Course Name: Computer Workshop		Course Code: CS-306
Students will be able to:		
CO1:	Recognizing basic concepts of Python like keywords, data types, operators, and control structures.	
CO2:	Explaining the purpose of different control structures, data structures, and their applications.	
CO3:	Implementing the learned concepts like functions, loops, and conditionals to write Python code.	
CO4:	Breaking down real-world problems and identifying which Python concepts (loops, functions, or data structures) are appropriate for solving them.	



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Course Name: Evaluation of Internship I		Course Code: BT-107
Students will be able to:		
CO1:	Express the application of knowledge and skill sets acquired from the course and workplace in the assigned job function.	
CO2:	Solve real-life challenges in the workplace by analyzing the work environment and conditions and selecting appropriate skill sets acquired from the program.	
CO3:	Discuss and collaborate effectively and appropriately with different professionals in the work environment through written and oral means.	
CO4:	Express professional ethics by displaying a positive disposition during the internship.	

Course Name: Internship II		Course Code: BT-307
Students will be able to:		
CO1:	Express the application of knowledge and skill sets acquired from the course and workplace in the assigned job function.	
CO2:	Solve real-life challenges in the workplace by analyzing the work environment and conditions and selecting appropriate skill sets acquired from the program.	
CO3:	Discuss and collaborate effectively and appropriately with different professionals in the work environment through written and oral means.	
CO4:	Express professional ethics by displaying a positive disposition during the internship.	

Approved By:-
Head of Department