COURSE OUTCOMES

REGULATION 2024

Course Name	Course Outcomes
SEMESTER I	
241LEH101T PROFESSIONAL ENGLISH - I	**CO1:**To use appropriate words in a professional context **CO2:**To gain understanding of basic grammatical structures and use them in right context. **CO3:**To read and infer the denotative and connotative meanings of technical texts **CO4:** To write definitions, descriptions, and recommendations. **CO5**: To construct Essays, with Punctuations and able to use Idioms and Phrases.
241MAB101T - MATRICES AND CALCULUS	**CO1:**Apply the matrix algebra methods for solving practical problems. **CO2:** Solve higher order ordinary differential equations which arise in engineering applications. **CO3:** Apply differential calculus tools in solving various application problems. **CO4:** Apply differential calculus ideas on several variable functions. **CO5:** Apply multiple integral ideas in solving areas, volumes and other practical problems.
241PYB101T ENGINEERING PHYSICS	**CO1:** Understand the importance of mechanics. **CO2:** Express their knowledge in electromagnetic waves. **CO3:** Demonstrate a strong foundational knowledge in optics and lasers. **CO4:** Understand the importance of quantum physics. **CO5**: Comprehend and apply quantum mechanical principles towards the formation of energy bands
241CYB101T ENGINEERING CHEMISTRY	**CO1:**To infer the quality of water from quality parameter data and propose suitable treatment methodologies to treat water. **CO2:** To identify and apply basic concepts of nano science and nanotechnology in designing the synthesis of nano materials for engineering and technology applications. **CO3:**To apply the knowledge of phase rule and composites for material selection requirements. **CO4:** To recommend suitable fuels for engineering processes and applications. **CO5:**To recognize different forms of energy resources and apply them for suitable applications in energy sectors.To infer the quality of water from quality parameter data and propose suitable treatment

241GES101T PROGRAMMING IN C	**CO1:** Demonstrate knowledge on C Programming constructs **CO2:** Design and implement applications using arrays and strings **CO3:** Develop and implement modular applications in C using functions. **CO4:** Develop applications in C using structures and pointers. **CO5**: Design applications using sequential and random access file processing.
	SEMESTER-II
241MAB201T – LINEAR ALGEBRA AND NUMERICAL METHODS	**CO1:**Analyse the fundamental concepts of advanced algebra and their role in modern mathematics and applied contexts. **CO2:**Analyse the concepts of linear transformation and its matrix representation, diagonalization of a real matrix, inner product spaces and norms. **CO3**:Apply the basic concepts and techniques of solving algebraic and transcendental equations and eigen value problems. **CO4:**Apply the numerical techniques of interpolation in various intervals and apply the numerical techniques of differentiation and integration for engineering problems. **CO5:**Apply various numerical techniques to solve first and second order ordinary differential equations.
241PYB201T PHYSICS FOR INFORMATION SCIENCE	**CO1:** To gain knowledge on classical and quantum electron theories, and energy band structures **CO2:** To analyze the basics of semiconductor physics and its applications in various devices **CO3:** To apply knowledge on magnetic properties of materials and their applications in data storage, **CO4**: To differentiate functioning of optical materials for optoelectronics **CO5:** To apply quantum structures in quantum computing
241PYB202T MATERIALS SCIENCE FOR ELECTRICAL ENGINEERING	**CO1**: To apply dielectric materials and insulation in Engineering. **CO2:** To analyze electrical and magnetic properties of materials. **CO3:** Differentiate semiconductor devices. **CO4:** To classify optical properties of materials and optical devices. **CO5:** Appreciate the importance of nanotechnology and nano devices.
241GEB201T ENVIRONMENTAL SCIENCE FOR COMPUTER SCIENCE ENGINEERING	**CO1:** To recognize and understand the functions of environment, ecosystems and biodiversity and their conservation. **CO2:** To identify the causes, effects of environmental pollution, and the effective management of solid waste and waste water. **CO3:** To identify and apply the understanding of renewable resources to contribute sustainability and major nvironmental issues. **CO4:** To recognize the different goals of sustainable development and apply them for suitable technological advancement and societal development and to conserve water. **CO5**: To design of energy-efficient hardware and software solutions to attain sustainable development.

241GES201T PROBLEM SOLVING USING PYTHON	**CO1:** Develop algorithmic solutions to simple computational problems. **CO2:** Develop and execute simple Python programs. **CO3**: Write simple Python programs using conditionals and looping for solving problems. **CO4**: Decompose a Python program into functions. **CO5**: Represent compound data using Python lists, tuples, dictionaries etc.

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<tr><td colspan="2" align="center">SEMESTER-III</td></tr>
<tr>
<td>241GES301J DIGITAL PRINCIPLES AND COMPUTER ORGANIZATION</td>
<td>CO 1: Design various combinational digital circuits using logic gates.
CO2: Design sequential circuits and analyze the design procedures.
CO3: Analyze the detailed steps involved in executing an instruction, identifying key Operations.
CO4: Analyze different types of control design and identify hazards.
CO5: Evaluate the impact of choosing specific memory systems and I/O communication
methods in a computer system design.</td>
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<td>DATA SCIENCE USING PYTHON</td>
<td>CO1: Apply data science process to analyze and infer meaningful insights from it.
CO2: Understand different types of data description for data science process
CO3: Gain knowledge on relationships between data
CO4: Use the Python Libraries for Data Wrangling
CO5: Apply visualization Libraries in Python to interpret and explore data</td>
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<td>241MAB301T DISCRETE MATHEMATICS</td>
<td>CO1: Choose the concepts of logic needed to test the logic of a program.
CO2: Apply the counting principles and Inclusion and exclusion principle in real world problems.
CO3: Analyze the structures of Graphs on many levels.
CO4: Analyze the concepts and properties of algebraic structures such as groups, rings and fields.
CO5: Organize the class of functions which transform a finite set into another finite set which relates to input and output functions in computer science</td>
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<td>241GES302T OBJECT ORIENTED PROGRAMMING</td>
<td>CO1:Applytheconceptsofclassesandobjectstosolvesimpleproblems
CO2:Develop Programs Using inheritance,packages and interfaces
CO3:Make use of exception handling mechanisms and multithreaded model to solve real world problems
CO4:Build Java applications with I/O packages, string classes, Collections and generics concepts
CO5:Integrate the concepts of event handling and JavaFX components and controls for developing GUI based applications</td>
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<td>241GES303T

AI ESSENTIALS FOR ENGINEERS</td>
<td>CO1: Describethe fundamentals of Artificial Intelligence.
CO2: Identify and Apply problem-solving techniques, search strategies to AI problems.
CO3:Apply knowledge representation techniquesto model intelligent behavior in AI
CO4: Analyze machine learning models and evaluate their performance.
CO5: AnalyzeAI applications in various fields and evaluateethical issues and security in AI</td>
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