Semester – II

Unique Course Number: FEC201 **Course Name: Engineering Mathematics-II**

Unique CO Number	Course Outcome (CO) Statement
FEC2011	Apply Gamma & Beta functions to evaluate improper integrals
FEC2012	Evaluate definite integrals numerically using the Trapezoidal, Simpson 1/3rd& Simpson 3/8th rule.
FEC2013	Solve first-order first-degree differential equations.
FEC2014	Solve the higher-order linear differential equations with constant coefficients
FEC2015	Evaluate multiple integrals using a transformation of coordinates, and change of order of integration.
FEC2016	Compute the area bounded by the region R using double integration.

Unique Course Number: FEC202 **Course Name: Engineering Physics-II**

Unique CO Number	Course Outcome (CO) Statement
FEC2021	Recall the basic laws and principles of Optics, Electricity, Magnetism and Nano-science.
FEC2022	Discuss the principles of diffraction of light, LASERs, Optical fibres and Nanotechnology.
FEC2023	Understand and describe the concepts pertaining to Electrodynamics, Relativity and Sensors.
FEC2024	Develop and utilize the concepts of diffraction of light, LASERs, Optical fibres and Nanotechnology for interpretation in various applications.
FEC2025	Apply the theory of Electrodynamics, Relativity and Sensors for explaining respective applications.
FEC2026	Demonstrate the use of concepts learnt in practical applications.

Unique Course Number: FEC203 **Course Name: Engineering Chemistry –II**

Unique CO Number	Course Outcome (CO) Statement
FEC2031	Explain the concept of Engineering Chemistry such as calorific value, knocking, and types of spectroscopy.
FEC2032	Distinguish the range of electromagnetic spectrum and illustrate the concept of emission spectroscopy.
FEC2033	Illustrate the effect of corrosive environment on engineering material and reduce the impact by applying principles of green chemistry.
FEC2034	Identify the types of corrosion and suggest control measures in industries.
FEC2035	Select the greener path following the principles of green chemistry.
FEC2036	Explain the process to determine the quality of fuel and calculate the amount of oxygen required for complete combustion.

Unique Course Number: FEC204 **Course Name: Engineering Graphics**

Unique CO Number	Course Outcome (CO) Statement
FEC2041	Understand the basic concepts of Engineering Graphics such as types of lines, dimensioning system, types of projections.
FEC2042	Apply the knowledge of projections to solve simple application based problems on projection of lines, solids & for generating engineering Curves such as cycloid, involute for gear tooth profile & helical curve.
FEC2043	Illustrate the methodology of projections to project the solid & converting pictorial view into two dimensional views.
FEC2044	Interpret the problem statement or a pictorial view to convert into a 2 dimensional view.
FEC2045	Use the knowledge of Orthographic projections to generate 2 dimensional views with or without section.
FEC2046	Interpret the drawing to convert two dimensional views into isometric view.

Unique Course Number: FEC205 **Course Name: C Programming**

Unique CO Number	Course Outcome (CO) Statement
FEC2051	Explain and exemplify the elementary C concepts through programs, algorithms and flowcharts.
FEC2052	Discuss and demonstrate decision making and branching statements in C
FEC2053	Discuss and demonstrate decision making and looping statements in C
FEC2054	Apply the concept of function on the given problem statement.
FEC2055	Demonstrate the use of homogeneous and heterogeneous data types in C.
FEC2056	Illustrate the use of pointers

Unique Course Number: FEC206 Course Name: Professional Communication and Ethics- I

Unique CO Number	Course Outcome (CO) Statement
FEC2061	Eliminate barriers and use verbal and nonverbal cues at social and workplace situations.
FEC2062	Employ Listening strategies to comprehend wide ranging vocabulary, grammatical structures, tone and pronunciation.
FEC2063	Prepare effectively for speaking at social, academic and business situations.
FEC2064	Use reading strategies for faster comprehension, summarization and evaluation of texts.
FEC2065	Acquire effective writing skills for drafting academic, business and technical documents.
FEC2066	Successfully interact in all kinds of settings, displaying refined grooming and social skills.

Unique Course Number: FEL201 **Course Name: Engineering Physics-II**

Unique LO Number	Lab Outcome (LO) Statement
FEL2011	To perform the experiment based on diffraction grating to find the wavelength of laser light.
FEL2012	To perform the experiment to measure divergence of the laser beam.
FEL2013	To perform the experiment to find numerical aperture of an optical fiber
FEL2014	To measure distance using an ultrasonic distance meter.
FEL2015	To perform the experiment on RTD and understand static and dynamic characteristics.
FEL2016	Design and implement miniature projects related to physics.

Unique Course Number: FEL202 **Course Name: Engineering Chemistry-II**

Unique LO Number	Lab Outcome (LO) Statement
FEL2021	Explain the principle of experiments.
FEL2022	Select appropriate apparatus instrument and procedure for the experiment.
FEL2023	Perform stepwise procedure of experiment.
FEL2024	Infer the conclusion from the experimental observations.
FEL2025	Assess the quality of material with help of experimental data.
FEL2026	Apply principle of green chemistry for sustainable development.

Unique Course Number: FEL203 **Course Name: Engineering Graphics**

Unique LO Number	Lab Outcome (LO) Statement
FEL2031	Understand the theory of AutoCAD software
FEL2032	Understand Customization, Annotations, layering & other functions of AutoCAD software
FEL2033	Apply knowledge of AutoCAD software to draw missing view.
FEL2034	Use AutoCAD software to draw orthographic projections
FEL2035	Use AutoCAD software to draw Sectional orthographic projections
FEL2036	Use AutoCAD software to draw isometric projection and generate 3D modeling

Unique Course Number: FEL205 **Course Name: Professional Communication and Ethics- I**

Unique LO Number	Lab Outcome (LO) Statement
FEL2051	Listen and comprehend all types of spoken discourse successfully
FEL2052	Speak fluently and make effective professional presentations.
FEL2053	Read large quantities of text in a short time to comprehend, summarize and evaluate content.
FEL2054	Draft precise business letters, academic essays and technical guidelines.
FEL2055	Dress finely and conduct themselves properly in social, academic and professional situations
FEL2056	Understand the nuances of non –verbal communication while communicating.

Unique Course Number: FEL206 **Course Name: Basic Workshop practice-II**

Unique LO Number	Course Outcome (LO) Statement
FEL2061	Develop the necessary skills required to handle / use different tools for carpentry, sheet metal working and brazing.
FEL2062	Design and model of a Cross-Lap joint.
FEL2063	Demonstration of a wood turning job.
FEL2064	Demonstrate and simulate different software for PCB designing and electrical connections for different load.
FEL2065	Develop the necessary skills required to handle / use different tools to design, fabricate and assemble PCB.
FEL2066	Design and modeling of a sheet metal job along with brazing operation.