I Year –II Semester

COURSE CODE	COURSE NAME	CO	CO STATEMENT
MA1205	Transform Techniques and Partial Differential Equations	CO1	Apply the Laplace transform for solving differential equations and integral equations.
		CO2	Apply partial differentiation to find maxima and minima of functions of several variables.
		CO3	Find the Fourier series expansions of various functions and apply integral expressions for the forward and inverse Fourier transform.
		CO4	Solve partial differential equations of first and higher order using analytical methods.
		CO5	Develop Z transform techniques to solve discrete time systems.
MA1202	Complex Variables and Multivariable Calculus	CO1	Examine the analyticity of complex functions.
		CO2	Apply Cauchy's theorem and Cauchy's residue method to evaluate complex integration.
		CO3	Evaluate the volume and surface area of solids using multiple integrals and apply the special functions to engineering problems.
		CO4	Understand the physical meaning of different operators such as gradient, curl and divergence.
		CO5	Estimate the work done against a field, circulation and flux using vector integral theorems
CH1202	Engineering Chemistry	CO1	Distinguish thermoplastics, thermosetting plastics and elastomers.
		CO2	Design the metallic materials to prevent the corrosion.
		CO3	Discuss the working principle and applications of primary, secondary battery cells, fuel cells and Photo Voltaic Cell
		CO4	Compare the working principle and materials used in Floppy, CD and pen drive
		CO5	Illustrate the preparation, properties and applications of Nano materials and importance of green chemistry
ES1203	Problem Solving and Programming using C	CO1	Develop algorithms and flowcharts and also Understand the compilation, debugging, execution and writing of basic C programs .
		CO2	Develop C Programs using control and iterative statements
		CO3	Solve DC and AC electrical circuits using theorems, mesh and nodal analysis techniques

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ES1203	Problem Solving and Programming using C	CO4	Apply the knowledge of strings and pointers in programming
		CO5	Comprehend file handling and user defined data types
ES1201	Basic Electrical Engineering	CO1	Determine motor losses and efficiency
		CO2	Determine losses, efficiency, and voltage regulation of a transformer under specific operating conditions
		CO3	Illustrate working principles of induction motor, and synchronous generator
		CO4	Understand the Measuring instruments
		CO5	Describe working principles of protection devices used in electrical circuits
CH1203	Engineering Chemistry Lab	CO1	Explain the functioning of the instruments such as pH, Viscometer, Conductivity and Potentiometric meters.
		CO2	Interpret the graphical values to analyze the experimental results.
		CO3	Determine the concentrations of Acid, Zinc, Iron and Copper.
		CO4	Compare viscosities of different oils.
		CO5	Prepare polymers and nano materials.
		CO6	Identify the safety precautions to carry out the experiments in the laboratory using chemicals.
EN1201	Communicative English Lab-II	CO1	Enabling students to use Computer assisted Language Laboratory (CALL) to enhance their pronunciation through stress, intonation and rhythm for routine and spontaneous interaction
		CO2	Attainment of communicative competence for the fulfilment of academic, professional and social purposes.
		CO3	Attainment of language Proficiency through Contextualized, Task Based Activities to realize employment potential at the end of the course.
		CO4	Acquired listening, speaking, reading and writing skills necessary for the survival in the post modern society through task-based and skill-based communication practices with judicious integration of modern tools.
		CO5	Development of fluency and accuracy for effective and professional communication in real-time situations by using appropriate verbiage and contextual knowledge.

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ES1204	Problem Solving and Programming using C Lab	CO1	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.
		CO2	Understand C programming development environment, compiling, debugging, and linking and executing a program using the development environment
		CO3	Analyzing the complexity of problems modularize the problems into small modules and then convert them into programs
		CO4	Understand and apply the in-built functions and customized functions for solving the problems
		CO5	Understand and apply the pointers, memory allocation techniques and use of files for dealing with variety of problems.
ES1202	Basic Electrical Engineering Laboratory	CO1	Examine the performance characteristics of a Transformer with and without load
		CO2	Distinguish star and delta connections and can find the line and phase components
		CO3	Determine the performance characteristics of DC and AC machines
		CO4	Organize the speed of a DC Shunt motor.
		CO5	Get exposure to components of LT switchgear.
MC1201	Environmental Science	CO1	Understand about the environment and natural resources.
		CO2	Illustrate about the ecosystem and knows the importance of conservation of biodiversity.
		CO3	Understands about various attributes of different types of pollution and their impacts on the environment and control methods along with waste management practices.
		CO4	Relate the current environmental impacts with the societal problems.
		CO5	Identify the current population growth with their impacts and apply the knowledge how to manage environment issues