

Year	Course Name	Course Outcome No.	Course Outcome
FE (Sem-I) (Sem-II)	Engineering Physics	CO107002.1	Develop understanding of interference, diffraction and polarization; connect it to few engineering applications.
		CO107002.2	Learn basics of lasers and optical fibres and their use in some applications.
		CO107002.3	Understand concepts and principles in quantum mechanics. Relate them to some applications.
		CO107002.4	Understand theory of semiconductors and their applications in some semiconductor devices.
		CO107002.5	Summarize basics of magnetism and superconductivity. Explore few of their technological applications.
		CO107002.6	Comprehend use of concepts of physics for Non Destructive Testing. Learn some properties of nanomaterials and their application.
FE (Sem-I) (Sem-II)	Engineering Chemistry	CO107009.1	Apply the different methodologies for analysis of water and techniques involved in softening of water as commodity.
		CO107009.2	Select appropriate electro-technique and method of material analysis.
		CO107009.3	Demonstrate the knowledge of advanced engineering materials for various engineering applications.
		CO107009.4	Analyze fuel and suggest use of alternative fuels.
		CO107009.5	Identify chemical compounds based on their structure.
		CO107009.6	Explain causes of corrosion and methods for minimizing corrosion.
FE (Sem-I)	Engineering Mathematics - I	CO107001.1	Mean value theorem and its generalization leading to Taylors and Maclaurin's series useful in the analysis of engineering problem.
		CO107001.2	The Fourier series representation and Harmonic analysis for design and analysis of periodic continuous and discrete systems.
		CO107001.3	To deal with derivative of functions of several variables that are essential in various branches of engineering.
		CO107001.4	To apply concept of Jacobians to find partial derivative of implicit function and functional dependence. Use of partial derivatives in estimating error and approximation and finding extreme values of the function.
		CO107001.5	The essential tool of Matrices and linear algebra in a comprehensive manner for analysis of system of linear equations, finding linear and orthogonal transformation.
		CO107001.6	The essential tool of Matrices and linear algebra in a comprehensive manner for finding Eigen Values and Eigen Vectors applicable to engineering problems.

Year	Course Name	Course Outcome No.	Course Outcome
FE (Sem-II)	Engineering Mathematics - II	CO107008.1	The effective mathematical tools for solution of first order differential equation.
		CO107008.2	The effective mathematical tools for solution of first order differential equation that model physical processes such as Newton's law of cooling, electrical circuit, rectilinear motion, mass spring systems, heat transfer etc.
		CO107008.3	Advanced integration techniques such as Reduction formulae, Beta functions, Gamma functions, Differential under Integral sign and Error function.
		CO107008.4	To trace the curve for a given equation and measure arc length of various curves.
		CO107008.5	The concept of solid Geometry using equations of Sphere, Cone and Cylinder in a comprehensive manner.
		CO107008.6	Evaluation of multiple Integrals and its application to find area bounded by curve, volume bounded by surfaces, Centre of Gravity and Moment of Inertia.
SE (Sem-I)	Engineering Mathematics-III (Mechanical)	CO207002.1	Solve higher order linear differential equations and apply to modeling and analyzing mass spring systems.
		CO207002.2	Apply Laplace Transform and Fourier transform techniques to solve differential equations involved in Vibration theory, heat transfer and related engineering applications.
		CO207002.3	Apply statistical methods like correlation , regression analysis in analyzing and interpreting experimental data and probability theory in testing and quality control.
		CO207002.4	Perform Vector Differentiation and integration , analyze the vector fields and apply to Fluid flow problems.
		CO207002.5	Solve various partial differential equations such as Wave equation, one and two dimensional heat flow equations.
		CO207002.6	Apply Vector differentiation and integration to problems in Fluid Mechanics.
SE (Sem-I)	Engineering Mathematics-III (Civil)	CO207001.1	Solve higher order linear differential equations and apply to Civil Engineering problems such as bending of beams and whirling of shafts.
		CO207001.2	Solve systems of linear equations using direct and iterative numerical techniques and develop solution to Ordinary Differential equation using single step and multistep methods applied to structural system.
		CO207001.3	Apply statistical methods like correlation, regression analysis in analyzing and interpreting experimental data and probability theory applied to construction management.
		CO207001.4	Perform Vector Differentiation and integration, analyze the vector and apply to Fluid flow problems.
		CO207001.5	Solve various partial differential equations such as Wave equation, one and two dimensional heat flow equations.
		CO207001.6	Apply Vector differentiation and integration to problems in Fluid Mechanics.

Year	Course Name	Course Outcome No.	Course Outcome
SE (Sem-I)	Engineering Mathematics-III (Electrical)	CO207006.1	Solve higher order linear differential equations using appropriate techniques for modeling and analyzing electrical circuits.
		CO207006.2	Solve problems related to Laplace Transform and applications to Signal processing
		CO207006.3	Solve problems related to Fourier and Z-transform and applications to control systems and signal processing.
		CO207006.4	Perform vector differentiation and integration, analyze the vector fields and apply to Electromagnetic fields.
		CO207006.5	Analyze conformal mappings, transformations.
		CO207006.6	Understand contour integration of complex function in study of electrostatics and signal processing.
SE (Sem-II)	Engineering Mathematics-III (Computer)	CO207003.1	Solve higher order linear differential equations using appropriate techniques for modeling and analyzing electrical circuits.
		CO207003.2	Solve problems related to Fourier and Z-transform and applications to control systems and signal processing.
		CO207003.3	Apply statistical methods like correlation, regression analysis and probability theory for analysis and prediction of given data.
		CO207003.4	Perform vector differentiation and integration, analyze the vector fields and apply to Electromagnetic fields.
		CO207003.5	Analyze conformal mappings, transformations.
		CO207003.6	Perform contour integration of complex function required in Image processing, Digital filters & computer graphics
SE (Sem-II)	Engineering Mathematics-III (E & TC)	CO207005.1	Solve higher order linear differential equations using appropriate techniques for modeling and analyzing electrical circuits.
		CO207005.2	Solve problems related to Fourier and Z-transform and applications to control systems and signal processing.
		CO207005.3	Obtain interpolating polynomial, numerically differentiate and integrate functions using single and multistep iterative methods used in modern scientific computing.
		CO207005.4	Perform vector differentiation and integration, analyze the vector fields and apply to Electromagnetic fields.
		CO207005.5	Analyze conformal mappings, transformations.
		CO207005.6	Perform contour integration of complex function in study of electrostatics and signal processing.