

Department of Mathematics
Course Specific Outcome

Semester	Paper /Course	Name of the Paper/Corse	Course Outcome
Semester-1	CC-1	Calculus	Gain proficiency in calculus computation and solve application problems in a variety of settings ranging from physics and biology to business and economics
	CC-2	Discrete Mathematics	An ability to apply knowledge of computing and mathematical foundations, algorithm principles, and computer science theory to the modelling and design of computer based system.
	GE-1	CALCULUS AND DIFFERENTIAL EQUATIONS	Understand the relationship between the derivative and the definite integral as expressed in both parts of the fundamental theorem of calculus.
Semester-2	CC-3	Real Analysis	Demonstrate an understanding of limits and how they are used in sequences, series, differentiation and integrations.
	CC-4	Differential equations	Learn the concept of differential equation classify the differential equation with respect to their order and linearity. Learn the meaning of salutation of differential equation also known existence and uniqueness.
	GE-2	ALGEBRA	Recognise technical terms and appreciate some of the uses of algebra. Collect like terms and simplify
Semester-3	CC-5	Theory of Real functions	Lear Fundamental properties of the real numbers that lead to the formal development of real analysis
	CC-6	Group Theory-I	Understand and use the term homomorphism and isomorphism also use the concept of conjugation. Derive the existence of groups of a specified small order.
	CC-7	Partial differential equations and system of ODEs	By using partial differential equation can solve modelling, the general structures of solution analytic and

			numerical methods for solution.
	SEC-1	Quantitative and Logical Thinking	Will able to reason, model and draw conclusion or make decision with mathematical, statistical and quantitative information. Also will be able to critique and evaluate quantitative arguments that utilize mathematical, statistical and quantitative information.
Semester-4	CC-8	Numerical Methods and Scientific Computing	Derive numerical methods for various mathematical operations and tasks, such as interpolations, differentiation, integration, the solutions of linear and nonlinear equations and the solution of differential equations. Analyse and evaluate the accuracy of common numerical methods.
	CC-9	Topology of Metric spaces	Demonstrate an understanding of the concepts of metric spaces and topological spaces, and their role in mathematics known about completeness, connectedness and convergence within this structures
	CC-10	Ring Theory	Validate and critically assess a mathematical proof; use a combination of theoretical knowledge and independent mathematical thinking to investigate questions in ring theory and to construct proofs
	SEC-2	Data Analysis and Computer Application	Demonstrate a basic understanding of computer hardware and software. Demonstrate problem solving skills. Apply logical skills to programming in a variety of languages. Utilize web technologies. Present conclusions effectively, orally and in writing. Demonstrate basic understanding of network principles.
Semester-5	CC-11	Multivariable Calculus	Will know many different ways of representing functions of several variables including algebraic formulas, graphs, contour diagrams, cross sections, and numerical tables.

	CC-12	Linear Algebra	Explain the concept of base and dimension of a vector space, properties of vectors on the base, row and column space.
	DSE-1	Linear Programming	Able to know quantitative methods used in decision making, explain the applications, constructs linear programming models, known transportation model.
	DSE-2	Probability and Statistics	Demonstrate the concepts of factorial and the basic principal of counting, known permutation, combination and Binomial theorem known the concept of a random event.
Semester-6	CC-13	Complex analysis	Define the concepts of derivation of analytic functions. Define the concept of sequences and series of the complex functions known concepts of convergence sequences and series of the complex function.
	CC-14	Group Theory-II	Precise and accurate and mathematical objects in ring theory. Known irreducibility of higher degree polynomial over rings. Use a combination of theoretical knowledge and independent mathematical thinking to investigate questions in ring theory.
	DSE-3	Differential Geometry	Analyse the equivalence of two curves by applying some theorems express definition and parameterization of surfaces. Express tangent spaces of surfaces. Explain different maps between surfaces and find derivatives of such maps
	DSE-4	Project	Understand the foundations of mathematics. Be able to perform basic computations in higher mathematics. Develop and maintain problem solving skills. Be able to write and understand basic proofs. Have experience using technology to address mathematical ideas.