

SCHOOL OF MATHEMATICS, DAVV

Program outcomes/Course outcomes/Program specific outcomes

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Program	Program outcome	Program specific outcomes
M.Sc.	(i) Working knowledge in courses taught. (ii) Ability to apply to real life problems and industrial problems. (iii) Tackle applications to other branches of Mathematics and science. (iv) Ability to face competitive exams like NET, GATE, SET etc.,	To become good teachers and researchers
M.Phil.	(i) Working knowledge in courses taught. (ii) Ability to apply to real life problems and industrial problems. (iii) Ability to do understand research papers and develop independent thinking. (iv) Tackle applications to other branches of mathematics and science.	To become good teachers and researchers
Ph.D.	(i) Ability to do research independently.	To become good teachers and researchers

	Courses	Course outcome
M.Sc		
Semester I		
	M 111 Field theory	To find roots of polynomials in a given field or an extension of the field.
	M 112 Real Analysis-I	To compute Riemann Stieltjes integral and check uniform convergence of sequences and series of functions.
	M 113 Topology-I	To check cardinality of a given set, To check continuity of a function, To determine whether given set is closed or open.
	M 114 Complex Analysis-I	To verify analyticity of a given complex valued function, Finding contour integrals.
	M 101 Differential Equations-I	Solving initial value problems, boundary value problems, Linear differential equations.

Semester II		
	M 211 Advanced Abstract Algebra	Analysing the nature of linear transformations, Computing various canonical forms.
	M 212 Real Analysis-II	To verify measurability of a given set and a given function, To check Lebesgue integrability of a given function.
	M 213 Topology-II	To apply various techniques of separation of a given point and a given set.
	M 214 Complex Analysis-II	To deal with applications of various important complex valued functions like Gamma, Zeta functions etc.,
	M 201 Differential Equations-II	To deal with non linear differential equations.
Semester III		
	M 311 Integration Theory	To understand generalizations of the Lebesgue measure and integration.
	M 312 Functional Analysis	To understand functionals, bounded linear transformations of Banach spaces and Hilbert spaces.
	M 313 Partial Differential Equations	To understand Heat, Energy and Wave equations.
	M 301 Theory of Linear Operators-I	To understand various spectra of operators.
	M 302 Linear Programming-I	To understand theory of simplex method and solve linear programming problems.
	M305 Mathematical Modelling-I	To understand basics of Modelling.
Semester IV		
	M 411 Mechanics	To understand calculus of variations.
	M 401 Theory of Linear Operators - II	To understand spectral representations of bounded operators and unbounded operators
	M 402 Linear Programming-II	To solve integer programming, Transportation and assignment problems.
	M 404 Topics In Ring Theory	To understand basic tools required to study commutative algebra.
	M 406 Analytical Number Theory	To understand characters of finite abelian groups, Dirichlet series and Euler products, partitions and generating functions.
	M 405 Algebraic Topology	To understand homotopic paths, fundamental groups, covering spaces etc.,
	M405 Mathematical Modelling-II	To understand basics of Modelling.