


**GURU GHASIDAS VISHWAVIDYALAYA, BILASPUR**  
**DEPARTMENT OF MATHEMATICS**  
**COURSE STRUCTURE & SYLLABUS - M.Sc. in Mathematics**

Semester	Course Name	Course code	Course	Credit Hours
<b>I</b>	<b>Core</b>	<b>AMPATT1</b>	Abstract Algebra	<b>05</b>
		<b>AMPATT2</b>	Topology	<b>05</b>
		<b>AMPATT3</b>	Discrete Mathematical Structures	<b>05</b>
		<b>AMPATT4</b>	Geometry of Manifolds	<b>05</b>
	<b>Open Elective (OE)</b>	<b>AMPATO1</b>	Applications of Fuzzy Sets & Fuzzy Logic	<b>05</b>
<b>II</b>	<b>Core</b>	<b>AMPBTT1</b>	Real Analysis	<b>05</b>
		<b>AMPBTT2</b>	Numerical Analysis	<b>05</b>
	<b>DSE (Any Two)</b>	<b>AMPBTD1</b>	Coding Theory	<b>05</b>
		<b>AMPBTD2</b>	Finsler Geometry	<b>05</b>
		<b>AMPBTD3</b>	Fluid Mechanics	<b>05</b>
		<b>AMPBTD4</b>	Mathematical Methods of Applied Mathematics	<b>05</b>
		<b>AMPBTD5</b>	Mathematical Statistics	<b>05</b>
		<b>AMPBTD6</b>	Riemannian Manifold and connections	<b>05</b>
		<b>AMPBTD7</b>	Fractional Calculus and Integral Transforms	<b>05</b>
	<b>Research Methodology</b>	<b>AMUBTT3</b>	Research Methodology	<b>02</b>
<b>III</b>	<b>(Core)</b>	<b>AMPCTT1</b>	Functional Analysis	<b>05</b>
		<b>AMPCTT2</b>	Theory of ordinary differential equations	<b>05</b>
	<b>DSE (Any Two)</b>	<b>AMPCTD1</b>	Algebraic Topology	<b>05</b>
		<b>AMPCTD2</b>	Complex Manifold	<b>05</b>
		<b>AMPCTD3</b>	Difference Equations	<b>05</b>
		<b>AMPCTD4</b>	Fuzzy Sets and Fuzzy Logic	<b>05</b>
		<b>AMPCTD5</b>	Information Theory and its Applications	<b>05</b>
		<b>AMPCTD6</b>	Integral Equations	<b>05</b>

IV		AMPCTD7	Multipoint Iterative Methods	05
		AMPCTD8	Fundamentals of Elasticity	05
		AMPCTD9	Advanced Numerical Analysis	05
		<b>Project</b> AMPCPF1	Project Phase-I	05
	Core	AMPDTT1	Complex Analysis	05
		AMPDTT2	Theory of partial differential equations	05
	DSE (Any Two)	AMPDTD1	Advanced Differential Equations	05
		AMPDTD2	Advanced Functional Analysis	05
		AMPDTD3	Applications of Fuzzy Logic	05
		AMPDTD4	Ring and Category of Modules	05
		AMPDTD5	Cryptography	05
		AMPDTD6	Financial Mathematics and its Applications	05
		AMPDTD7	Mathematical Ecology	05
		AMPDTD8	Operations Research	05
		AMPDTD9	Theory of Relativity	05
		AMPDTD10	Fundamentals of theoretical Seismology	05
	<b>Project</b>	AMPDPF1	Project Phase-II	05

  
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