

First Year (Total Credits: 36)

Semester	Course Code	Course Title	Type
Fall	MATH 307	Introduction to Proof	Required
	MATH 281	Several-Variable Calculus I	Required
	MATH 316	Fundamentals of Analysis I	Required
Winter	MATH 317	Fundamentals of Analysis II	Required
	MATH 282	Several-Variable Calculus II	Required
	MATH 441	Abstract Linear Algebra	Required
Spring	MATH 433	Curves and Surfaces	Required
	MATH 411	Contour Integration	Elective
	CS 410	Introduction to Topological Data Analysis	Elective

Second Year (Total Credits: 36)

Semester	Course Code	Course Title	Type
Fall	MATH 444	Introduction to Abstract Algebra I	Required
	MATH 431	Introduction to Topology I	Required
	MATH 461	Introduction to Statistics I	Required
	MATH 637	Differential Geometry I	Elective
Winter	MATH 445	Introduction to Abstract Algebra II	Required
	MATH 432	Introduction to Topology II	Required
	MATH 462	Introduction to Statistics II	Required
	MATH 638	Differential Geometry II	Elective
	PHYSICS 415	Introduction to Quantum Physics II	Elective
Spring	MATH 446	Introduction to Abstract Algebra III	Elective
	MATH 463	Introduction to Statistics III	Required
	MATH 639	Differential Geometry III	Elective
	PHYSICS 417	Introduction to Quantum Physics III	Elective

Third Year (Total Credits: 36)

Semester	Course Code	Course Title	Type
Fall	MATH 647	Abstract Algebra I	Elective
	MATH 672	Theory of Probability I	Elective
	PHYSICS 412	Electricity and Magnetism I	Elective
Winter	MATH 648	Abstract Algebra II	Elective
	MATH 673	Theory of Probability II	Elective
	MATH 414	Real Analysis II	Elective
	PHYSICS 413	Electricity and Magnetism II	Elective
Spring	MATH 649	Abstract Algebra III	Elective
	MATH 415	Real Analysis III	Elective
	PHYSICS 422	Electromagnetism	Elective

Fourth Year (Total Credits: 36)

Semester	Course Code	Course Title	Type
Fall	MATH 634	Algebraic Topology I	Elective
	MATH 616	Real Analysis I	Elective
	PHYSICS 664	Quantum Field Theory I	Elective
Winter	MATH 635	Algebraic Topology II	Elective
	MATH 617	Real Analysis II	Elective
	PHYSICS 665	Quantum Field Theory II	Elective
Spring	MATH 636	Algebraic Topology III	Elective
	MATH 618	Real Analysis III	Elective
	PHYSICS 666	Quantum Field Theory III	Elective