

Table of Curriculum (Undergraduate Program)

Classification	Subject No.	Subject Code	Subject Name	Lecture:Lab: Credit (Homework)	Semester	Remark
Elective	MAS100	25.100	College Mathematics	3:1:3		
Mandatory Basic	MAS101	25.101	Calculus I	3:1:3(6)		
	MAS102	25.102	Calculus II	3:1:3(6)		
	MAS103	25.103	Honor Calculus I	3:1:3(6)		
	MAS104	25.104	Honor Calculus II	3:1:3(6)		
Elective Basic	MAS109	25.109	Introduction to Linear Algebra	3:1:3(6)	Fall	
	MAS201	25.201	Differential Equations and Applications	3:1:3(6)		
	MAS202	25.202	Applied Mathematical Analysis	3:1:3(6)		
	MAS250	25.250	Probability and Statistics	3:1:3(6)		
Elective major courses	MAS210	25.210	Introduction to Number Theory	3:0:3(6)		
	MAS212	25.212	Linear Algebra	3:0:3(6)	Spring,Fall	
	MAS241	25.241	Analysis I	3:2:4(6)		
	MAS242	25.242	Analysis II	3:2:4(6)	Spring	
	MAS260	25.260	Applied Mathematics and Modeling	3:2:3(6)	Fall	
	MAS261	25.261	Computational Geometry and Computer Graphics	3:0:3(6)		
	MAS270	25.270	Logic and Set Theory	3:0:3(6)		
	MAS275	25.275	Discrete Mathematics	3:0:3(6)		
	MAS311	25.311	Modern Algebra I	3:2:4(6)	Spring	
	MAS312	25.312	Modern Algebra II	3:0:3(6)	Fall	
	MAS321	25.321	Introduction to Differential Geometry	3:2:4(6)	Fall	
	MAS331	25.331	Topology	3:2:4(6)	Spring	
	MAS341	25.341	Complex Variables	3:0:3(6)	Spring	
	MAS350	25.350	Elementary Probability Theory	3:0:3(6)		
	MAS355	25.355	Mathematical Statistics	3:0:3(6)		
	MAS364	25.364	Matrix Computation and Application	3:2:4(6)		
	MAS365	25.365	Introduction to Numerical Analysis	3:2:4(6)	Fall	
	MAS370	25.370	Information Mathematics	3:0:3(6)		
	MAS371	25.371	Introduction to Financial Mathematics	3:1:3(6)		
	MAS374	25.374	Optimization Theory	3:0:3(6)		
	MAS410	25.410	Introduction to Cryptography	3:0:3(6)		◎
	MAS411	25.420	Introduction to Algebraic Geometry	3:0:3(6)		◎
	MAS420	25.420	Analysis on Manifolds	3:0:3(6)		◎
	MAS430	25.430	Combinatorial Topology	3:0:3(6)		◎
MAS435	25.440	Matrix Groups	3:0:3(6)		◎	
MAS440	25.441	Introduction to Partial Differential Equations	3:0:3(6)		◎	

◎: Course mutually recognized by undergraduate and graduate programs

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Classification	Subject No.	Subject Code	Subject Name	Lecture:Lab: Credit (Homework)	Semester	Remark
Elective major courses	MAS441	25.441	Lebesgue Integral Theory	3:0:3(6)	Fall	◎
	MAS442	25.442	Fourier Analysis and Applications	3:2:3(6)		◎
	MAS443	25.443	Ordinary Differential Equations and Dynamical systems	3:0:3(6)		◎
	MAS455	25.455	Linear Models	3:0:3(6)		◎
	MAS456	25.456	Statistical Methods with Computer	2:3:3(6)		◎
	MAS457	25.457	Random Process and Signal Processing	3:0:3(6)		◎
	MAS458	25.458	Theory and Application of Transforms	3:0:3(6)		◎
	MAS464	25.464	Mathematical Mechanics	3:0:3(6)		◎
	MAS470	25.470	Mathematical Modeling	3:2:3(6)		◎
	MAS471	25.471	Financial Mathematics and Stochastic Models	3:0:3(6)		◎
	MAS472	25.472	Computer Simulations in Financial Mathematics	3:0:3(6)		◎
	MAS475	25.475	Combinatorial Theory	3:0:3(6)		◎
	MAS476	25.476	Game Theory	3:0:3(6)		◎
	MAS477	25.477	Introduction to Graph Theory	3:0:3(6)		◎
	MAS478	25.478	Discrete Geometry	3:0:3(6)		◎
	MAS480	25.480	Topics in Mathematics	3:0:3(6)		◎
	MAS481	25.481	Topics in Mathematics I	1:0:1		◎
MAS482	25.482	Topics in Mathematics II	2:0:2		◎	
Advanced Major	MAS212	25.212	Linear Algebra	3:2:4(6)		
	MAS312	25.312	Modern Algebra II	3:0:3(6)		
	MAS430	25.430	Elementary Probability Theory	3:0:3(6)		◎
	MAS440	25.440	Introduction to Partial Differential Equations	3:0:3(6)		◎
Research	MAS490	25.490	Research in Mathematics	0:6:3		
	MAS491	25.491	Introduction to Contemporary Mathematics	2:0:2	Fall	
	MAS495	25.495	Individual Study	0:6:1		
	MAS496	25.496	Mathematics Seminar	1:0:1		

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Table of Curriculum (Graduate Program)

Classification	Subject No.	Subject Code	Subject Name	Lecture:Lab: Credit (Homework)	Semester	Remark
Mandatory General Courses	CC500	11.500	Scientific Writing	3:0:3 (4)	Spring,Fall	
	CC510	11.510	Introduction to Computer Application	2:3:3 (10)	Spring,Fall	
	CC513	11.513	Engineering Economy and Cost Analysis	3:0:3 (6)	Spring,Fall	
	CC530	11.530	Entrepreneurship and Business Strategies	3:0:3 (6)	Spring,Fall	
	CC532	11.532	Collaborative System Design and Engineering	4:0:4	Spring	
Elective Courses	MAS501	25.501	Analysis for Engineers	3:0:3(6)		◎
	MAS502	25.502	Functional Analysis for Engineers	3:0:3(6)		◎
	MAS503	25.503	Algebra for Engineers	3:0:3(6)		◎
	MAS504	25.504	Applied Matrix Computation	3:0:3(6)		◎
	MAS510	25.510	Number Theory	3:0:3(6)		◎
	MAS511	25.511	Algebra I	3:0:3(6)	Spring	◎
	MAS512	25.512	Algebra II	3:0:3(6)	Fall	◎
	MAS520	25.520	Differential Geometry	3:0:3(6)		◎
	MAS530	25.530	Differential Topology	3:0:3(6)		◎
	MAS531	25.531	Algebraic Topology I	3:0:3(6)	Spring	◎
	MAS532	25.532	Algebraic Topology II	3:0:3(6)	Fall	◎
	MAS540	25.540	Real Analysis	3:0:3(6)	Spring	◎
	MAS541	25.541	Complex Function Theory	3:0:3(6)	Fall	◎
	MAS546	25.546	Wavelets and Applications	3:0:3(6)		◎
	MAS547	25.547	Approximation Theory	3:0:3(6)		◎
	MAS548	25.548	Symbolic Dynamics	3:0:3(6)		◎
	MAS550	25.550	Probability Theory	3:0:3(6)	Fall	◎
	MAS552	25.552	Queueing Theory with Applications	3:0:3(6)		◎
	MAS555	25.555	Advanced Statistics	3:0:3(6)		◎
	MAS556	25.556	Time Series Analysis	3:0:3(6)		◎
	MAS557	25.557	Theory and Application of Machine Learning	3:0:3(6)		◎
	MAS560	25.560	Methods of Applied Mathematics	3:0:3(6)		◎
	MAS565	25.565	Numerical Analysis	3:0:3(6)	Spring	◎
	MAS571	25.571	Stochastic Methods in Financial Mathematics	3:0:3(6)		◎
	MAS575	25.575	Combinatorics	3:0:3(6)		◎
	MAS580	25.580	Recent Progress in Applied Mathematics	2:0:2(6)		◎
MAS581	25.581	Topics in Mathematics I	1:0:1		◎	
MAS582	25.582	Topics in Mathematics II	2:0:2		◎	
MAS583	25.583	Topics in Mathematics	3:0:3		◎	

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Classification	Subject No.	Subject Code	Subject Name	Lecture:Lab: Credit (Homework)	Semester	Remark
Elective Courses	MAS611	25.611	Algebraic Geometry I	3:0:3(6)		
	MAS612	25.612	Algebraic Geometry II	3:0:3(6)		
	MAS613	25.613	Lie Algebra	3:0:3(6)		
	MAS620	25.620	Lie Groups	3:0:3(6)		
	MAS621	25.621	Riemannian Geometry	3:0:3(6)		
	MAS622	25.622	Symplectic Geometry	3:0:3(6)		
	MAS623	25.623	Complex Geometry	3:0:3(6)		
	MAS630	25.630	Geometric Topology	3:0:3(6)		
	MAS631	25.631	Homotopy Theory	3:0:3(6)		
	MAS640	25.640	Harmonic Analysis	3:0:3(6)		
	MAS641	25.641	Functional Analysis	3:0:3(6)		
	MAS642	25.642	Generalized Functions	3:0:3(6)		
	MAS645	25.645	Partial Differential Equations	3:0:3(6)		
	MAS646	25.646	Nonlinear Differential Equations	3:0:3(6)		
	MAS647	25.647	Ordinary Differential Equations	3:0:3(6)		
	MAS650	25.650	Stochastic Differential Equations	3:0:3(6)		
	MAS651	25.651	Stochastic Processes	3:0:3(6)		
	MAS655	25.655	Graphic Models in Statistics	3:0:3(6)		
	MAS656	25.656	Multivariate Statistical Analysis	3:0:3(6)		
	MAS657	25.657	Computational Models of Neural Networks	3:0:3(6)		
	MAS660	25.660	Numerical Fluid Mechanics	3:0:3(6)		
	MAS661	25.661	Mathematical Fluid Mechanics	3:0:3(6)		
	MAS665	25.665	Numerical Partial Differential Equations	3:0:3(6)		
	MAS667	25.667	High Speed Computation	3:0:3(6)		
	MAS671	25.671	Computational Methods in Financial Mathematics	3:0:3(6)		
	MAS710	25.710	Representation Theory	3:0:3(6)		
	MAS711	25.711	Cryptology and Coding Theory	3:0:3(6)		
	MAS712	25.712	Algebraic Number Theory	3:0:3(6)		
	MAS730	25.730	Knot Theory	3:0:3(6)		
	MAS731	25.731	Transformation Group Theory	3:0:3(6)		
	MAS740	25.740	Ergodic Theory	3:0:3(6)		
	MAS760	25.760	Mathematical Methods for Mechanics	3:0:3(6)		
	MAS765	25.765	Finite Element Method	3:0:3(6)		
MAS771	25.771	Statistical Methods in Financial Mathematics	3:0:3(6)			
MAS880	25.880	Topics in Mathematics	3:0:3(6)			
MAS881	25.881	Topics in Mathematics (Ph.D.)	1:0:1	Spring,Fall		
MAS882	25.882	Topics in Mathematics (Ph.D.)	2:0:2	Spring,Fall		

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Classification	Subject No.	Subject Code	Subject Name	Lecture:Lab: Credit (Homework)	Semester	Remark
Research	MAS960	25.960	M.S. Thesis			
	MAS965	25.965	Independent Study in M.S.			
	MAS966	25.966	M.S. Seminar	1:0:1		
	MAS967	25.967	How to teach mathematics I (M.S.)	1:0:1		
	MAS968	25.968	How to teach mathematics II (M.S.)	1:0:1		
	MAS980	25.980	Ph.D. Thesis			
	MAS986	25.986	Ph.D. Seminar	1:0:1		
	MAS987	25.987	How to teach mathematics I (Ph.D.)	1:0:1		
	MAS988	25.988	How to teach mathematics II (Ph.D.)	1:0:1		

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