Interdisciplinary Concentration

This concentration requires a minor or second major in statistics, economics, physics, finance, any SEAS department, or another approved discipline in which mathematics is heavily used. Planned minor/second major: _____

Required Basic and Intermediate Courses

course	prerequisites	offered	Fall	Spr.	Fall	Spr.	Fall	Spr.	Fall	Spr.
1231 Calculus I (or 1221)		F, S, Smr								
1232 Calculus II	1231 or 1221	F, S, Smr								
2233 Multivariable Calculus	1232	F, S, Smr								
Computer Programming Course (CSCI) †										
2971 Intro. to Mathematical Reasoning	1232	F, S								
For BA: 2184 Linear Algebra I **or** ‡	1231 or 1221	F, S, Smr								
2185 Comp. Intro. Linear Algebra	1231/21 & 2971 (co)	F, S								
For BS: 2185 Comp. Intro. Linear Algebra ‡	1231/21 & 2971 (co)	F, S								

† Options: CSCI 1011, Java; *CSCI 1012, Python (best)*; 1041, FORTRAN; 1111, Software Development; 1121, C; 1131, C.

‡ Credit may not be earned for both Math 2184 and 2185. Math 2185 is required for the BS and preferred for the BA.

Required Advanced Courses

course	prerequisites	offered	Fall	Spr.	Fall	Spr.	Fall	Spr.	Fall	Spr.
3342 Ordinary Differential Equations	2184/85 & 2233	F (Smr)								
3359 Mathematical Modeling	3342 & CSCI	S								
3553 Numerical Analysis	2184/5, 2233, CSCI	F								

Electives (four for BA, six for BS∗)

course	prerequisites	offered	Fall	Spr.	Fall	Spr.	Fall	Spr.	Fall	Spr.
3120 Elementary Number Theory	2971	S even								
3125 Linear Algebra II	2184/85 & 2971	S odd								
3257 Complex Variables	2184/85, 2233, 2971	F even								
3343 Partial Differential Equations	3342	S								
3410 Mathematics of Finance	2233	F odd								
3411 Stochastic Methods in Finance	2184/85 & 3410	S even								
3613 Combinatorics	2971	F odd								
3632 Graph Theory	2971	S odd								
3710 Mathematical Logic	2971	F even								
3720 Axiomatic Set Theory	2971	F odd								
3730 Computability Theory	2971									
3740 Computational Complexity	2971									
3806 Topology	2971	F even								
3848 Differential Geometry	2184/85, 2233, & 2971	S even								
4121 Abstract Algebra I	2184/85 & 2971	F								
4122 Abstract Algebra II	4121	S even								
4239 Real Analysis I	1232 & 2971	F (Smr)								
4240 Real Analysis II	2184/85, 2233, & 4239	S								
4981 Seminar: Topics in Mathematics	2184/85 and 2233	S								
4995 Reading and Research										

∗ For students who complete the BS requirements for a major in astronomy and astrophysics, biology, biophysics, chemistry, data science, economics, physics, statistics, finance, information systems, or any major in SEAS, this requirement is reduced to four electives.