

Math and Actuarial Science Double Major Requirements

Part A: Required Prerequisites

Math 1151 & 1152	Calculus I and Calculus II	5 and 5
AcctMIS 2000 or (2200 & 2300)	Foundations of Accounting or Introduction to Accounting	3 or 6
Econ 2001.01 and 2002.01	Principles of Microeconomics and Macroeconomics	3 and 3
Math 1295	Introductory Seminar	1

Choose one of the following four:

CSE 1222 or 1223 or 1224	Intro to Computer Programming in C++ or Intro to Computer Programming in Java or Intro to Computer Programming in Python	3
CSE 2111	Modeling and Problem Solving with Spreadsheets and Databases	3

Choose one of the following three:

Comm 2367*	Persuasive Communication	3
Comm 2110*	Principles of Effective Public Speaking	3
Comm 2131*	Business and Professional Speaking	3

Part B: Major Program (Minimum grade of C- and GPA of 2.0)**

Note: Honors math courses may substitute for corresponding non-honors courses

Math 2153 or 2182H	Calculus III or Honors Calculus II	Prereq: Math 1152 or 1181H	4 or 5
Math 2568 or 2568H	Linear Algebra	Prereq: Math 2153	3
Math 4530 or Stat 4201**	Probability or Introduction to Mathematical Statistics I	Prereq: Math 2153	3-4
Stat 4202	Introduction to Mathematical Statistics II	Prereq: Math 4530 or Stat 4201	4

Required Courses for Actuarial Science Major (27 credit hours)

Math 3588	Practicum in Actuarial Science	Prereq: Junior Standing and one writing course	3
Math 3618	Theory of Interest ²	Prereq: Math 1152	3
Math 5630 and 5631	Life Contingencies I ^{3-a} and II ⁴	Prereq: Math 3618 and Math 4530/Stat 4201	6
Math 5637	Topics from Risk Modeling ⁶	Prereq: Math 2568 and Stat 4202	3
BusFin 3120 or 3220	Foundations of Finance or Business Finance	Prereq: AcctMIS 2000, Econ 2001, CSE	3
English 3304*	Business and Professional Writing		3

Choose one of the following sequences:

Math 5633 and 5634	Loss Models I and II ⁵	Prereq: Stat 4202	6
Econ 5410 and 5420	Econometrics I and II	Prereq: Econ 4001	6

Required Courses for Math Major (24 credit hours)

Math 2255	Differential Equations and Their Applications	Prereq: Math 2153	3
Math 3345 or 3345H	Foundations of Higher Mathematics	Prereq: Math 2153	3
Math 4547 and 4548	Introductory Analysis I and II	Prereq: Math 3345	6
Math 4580	Abstract Algebra I	Prereq: Math 3345 & 2568	3

Math Major Electives:

Choose any 3 math courses at the 3000 level and above			9
Suggested Courses	Math 3607	Beginning Scientific Computing	
	Math 3589	Introduction to Financial Mathematics	
	Math 4581	Abstract Algebra II	
Total Hours			65-67

Actuarial Exams: ¹SOA P/CAS 1 ²SOA FM/CAS 2 ^{3-a}SOA FAM-L ^{3-b}SOA FAM-S ⁴SOA ALTAM ⁵SOA ASTAM ⁶SOA SRM

Honors Degree: Students completing an honors degree must complete at least 5 honors eligible courses selected in consultation with a faculty advisor. At most 2 courses can count from (2182H, 2568H, 3345H). At least 3 courses must be at the 5000 level.

* New requirements for students starting Autumn 2020 and later.

****Entry into the Actuarial Science Major requires a 3.0 GPA and a B- or better in Math 4530 or Stat 4201.**

**Math and Actuarial Science Double Major Sample Schedule**

	Autumn		Spring		Major Hours
Year 1	Math 1151	5	Math 1152	5	0
	ARTSSCI 1100.01	1	English 1110	3	
	Econ 2001 or 2002	3	Econ 2001 or 2002	3	
Year 2	GE	3	CSE 1222, 1223, 1224 or 2111	3	19-20
	GE	3	GE	3	
		15		17	
	Math 2153	4	Math 2568	3	
	Math 3618 ²	3	Math 2225	3	
Year 3	AcctMIS 2000	3	Math 3345	3	25
	Comm 2367 or 2110 or 2131	3	Math 4530 or Stat 4201 ¹	3-4	
	GE; Math 1295	3, 1	GE	3	
		17		15-16	
	Math 5630 ^{3-a}	3	Math 5631 ⁴	3	
Year 4	Math 4547	3	Math 4548	3	21
	BusFin 3120 or 3220	3	Math 3588	3	
	Stat 4202	4	English 3304	3	
	GE	3	GE	3	
		16		15	
Year 4	Math 5633 ^{3-b} or Econ 5410	3	Math 5634 ⁵ or Econ 5420	3	21
	Math 4580	3	Math Major Elective	3	
	Math Major Elective	3	Math 5637 ⁶	3	
	Math Major Elective	3	GE	3	
	GE	3	GE	3	
Year 4		15		15	

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Additional hours may be necessary depending on course selection.

Students should complete the corresponding actuarial exam the semester after completing the correlate course.