

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	3,3
Econ 2001.01 and 2002.01	Principles of Microeconomics and Macroeconomics	3 and 3
Math 1295	Introductory Seminar	1

Choose one of the following three:

CSE 1222	Introduction to Computer Programming in C++ for Engineers and Scientists	3
CSE 1223	Introduction to Computer Programming in Java	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	4 or 5
Math 2568 or 2568H	Linear Algebra	3
Math 4530 or Stat 4201	Probability or Introduction to Mathematical Statistics ¹	3-4
Stat 4202	Introduction to Mathematical Statistics II	4

Required Courses for Actuarial Science Major (27 credit hours)

Math 3588	Practicum in Actuarial Science	3
Math 3618	Theory of Interest ²	3
Math 5630 and 5631	Life Contingencies I and II ³	6
Math 5632	Financial Economics for Actuaries ⁴	3
BusFin 3120 or 3220	Foundations of Finance or Business Finance	3
English 3304**	Business and Professional Speaking	3

Choose one of the following sequences:

Math 5633 and 5634	Loss Models I and II ⁵	6
Econ 5410 and 5420	Econometrics I and II	6

Required Courses for Math Major (24 credit hours)

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

Math Major Electives:

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

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		
GE	3	CSE 1222, 1223 or 2111	3		
GE	3	GE	3		
		15		17	
Year 2	Math 2153	4	Math 2568	3	19-20
	Math 3618 ²	3	Math 2255	3	
	AcctMIS 2000	3	Math 3345	3	
	Comm 2367 or Comm El.**	3	Math 4530 or Stat 4201 ¹	3-4	
	GE; Math 1295	3,1	GE	3	
		16		15-16	
Year 3	Math 5630 ³	3	Math 5631 ³	3	22
	Math 4547	3	Math 4548	3	
	Math 5632 ⁴	3	Math 3588	3	
	Stat 4202	4	English 3304**	3	
	GE	3	GE	3	
		16		15	
Year 4	Math 5633 ⁵ or Econ 5410	3	Math 5634 ⁵ or Econ 5420	3	21
	Math 4580	3	Math Major Elective	3	
	Math Major Elective	3	Math Major Elective	3	
	BusFin 3120 or 3220	3	GE	3	
	GE	3	GE	3	
		15		15	

Actuarial Exams: ¹SOA P/CAS ²SOA FM/CAS 2 ³SOA LTAM/CAS MAS1 ⁴SOA IFM/CAS 3F ⁵SOA STAM/CAS MAS1 and MAS 2

Additional hours may be necessary depending on course selection.

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

**New requirements effective for students starting Autumn 2020 or later.