Checklist for Actuarial Science Major

(Available through the Class of 2025)

We recommend to students interested in the actuarial science major: follow your math placement, and take Calculus I as early as possible, because it is part of the major required sequence MAT-117/131H, 118/132H, 231-232.

Required Courses (15)

Requirement	Course	Fall	Spring	Prerequisite	Semester Planned	Completed
Calculus I	MAT 131H or	x		MAT 114 or placement		
	MAT 117	x	x	MAT 114 or placement		
Calculus II	MAT 132H or		x	MAT 131H		
	MAT 118	x	x	MAT 117		
Calculus III	MAT 231	x		MAT 118 or MAT 132H		
Multivariable Calculus	MAT 232		x	MAT 231		
Discrete Structures	MAT 202	x		MAT 118/132H or coreq.		
Probability Theory	MAT 208		x	MAT 118 or MAT 132H		
Microeconomics	ECO 110	x	x			
Macroeconomics	ECO 111	x	x	ECO 110		
Accounting I	ACC 125	x	x			
Accounting II	ACC 126	x	x	ACC 125		
Actuarial Math	MAT 207	Even		MAT 202		
Statistics	ECO 115	x	x	BUS 100		
Econometrics I	ECO 215		x	Statistics, Calculus I and BUS 100 or CSC 113 or CSC 175		
Financial Management I	FIN 325	x	x	ECO 110/111 and ACC 125		
Investment Theory	FIN 357	x		ECO 110/111 and ECO 115		
Senior Math Assessment, Comp. exam, not a course			x	Senior Actuarial Science major		

Actuarial Science majors are encouraged – but not required – to take the first Actuarial Exam (Exam P, Probability, sponsored by Society of Actuaries) soon after taking MAT-208. Exam P is a minimum requirement for entry into a summer internship or fulltime employment as an actuary in an insurance company program. Advanced students may also consider taking the second Actuarial Exam (Exam FM, Financial Mathematics) before graduation.

More information about the Actuarial Exam is available at the Society of Actuaries web site: https://www.soa.org

Suggested Schedule for Actuarial Science Major

See Assumption's Catalog for additional information, e.g. Core Curriculum requirements
(available through Class of 2025)

First Year: Fall 20____	Spring 20____
1. MAT 131H Honors Calculus I (Fall) or MAT 117 Calculus (any semester), or follow your math placement	1. MAT 132H Honors Calculus II (Spring) or MAT 118 Calculus II (any semester) (Finish Calculus I and II as soon as possible)
2. ECO 110 Principles of Microeconomics	2. ECO 111 Principles of Macroeconomics
3. ACC 125 Principles of Accounting I	3. ACC 126 Principles of Accounting II
4.	4.
5.	5.

Second Year: Fall 20____	Spring 20____
1. MAT 202 Discrete Structures (Fall)	1. MAT 208 Probability Theory (Spring)
2. MAT 231 Calculus III (Fall)	2. MAT 232 Multivariable Calculus (Spring)
3. MAT 207 Actuarial Math (Fall even, or move to 3rd year if odd year)	3. ECO 115 Statistics
4.	4.
5.	5.
6. BUS 100 Excel (1 credit, if ECO 115 in Spring)	

Third Year: Fall 20____	Spring 20____
1. ECO 215 Econometrics (Fall)	1. FIN 325 Financial Management I
2. FIN 357 Investment Theory (Fall)	2
3.	3.
4.	4.
5.	5.

Fourth Year: Fall 20____	Spring 20____
1	1
2	2.
3.	3.
4.	4.
5.	5.
	6. Senior Math Assessment Exam, not a course

Recommended Courses: students in Actuarial Science should also consider these additional courses, e.g. toward the pursuit of a minor in Finance or Economics

Linear Algebra, MAT 203, prerequisite MAT 202 (Spring)
Real Analysis, MAT 332, prerequisite MAT 232 and MAT 202 (Fall, odd years)
Differential Equations, MAT 355, pre /co requisite MAT 232 (Spring, odd years)
Intro to Computer Science, CSC 113
Intro to Programming, CSC 117 (Fall) or Statistics Programming, CSC 120
Databases and Spreadsheets, CSC 175, prerequisite CSC 113 or CSC 117 (Fall)
Simulation, CSC 261, prerequisite CSC 117 (Spring, even years)
Operations Research, CSC 327, pre /co requisite CSC 305 (Fall, even years)
Law and Economics, ECO 230, prerequisite ECO 111 (alternating years)
Microeconomic Theory, ECO 310, prerequisite ECO 111 and Calculus I (Fall)
Macroeconomic Theory, ECO 311, prerequisite ECO 111 (Spring)
Industrial Organization, ECO 331, prerequisite ECO 111 (alternating years)
Financial Modeling, FIN 330, prerequisite FIN 325 and ECO 115 (Spring; first offered in 2022)
Financial Econometrics, FIN 430, prerequisite ECO 215 (Spring; first offered in 2023)