

B.S. in Mathematics - Actuarial Science Emphasis, 2022-23

	Course	Title	Cr.	When	Prerequisites
Required GE Courses	SS GE	ECON 2010 - Microeconomics	3	F/S/Su	
	Quantitative Lit.	MATH 1210 - Calculus I 4 F/S/Su	4	F/S/Su	MATH 1050 & 1060 or ACT 26+

Other GE Courses are required to graduate with a Bachelor's Degree from SUU. The above-listed courses count for both GE and major requirements.

Actuarial Science Core	ECON 2020	Principles of Macroeconomics	3	F/S/Su	
	ACCT 2010	Accounting Principles	3	F/S/Su	
	ECON 4260	Principles of Econometrics	3	F	ECON 2010, 2020, MATH 1040 (MATH 1110 or 1210 or ECON 2500#)
	FIN 3110	Risk and Insurance	3	F	#
	FIN 3250	Managerial Finance I	3	F/S/Su	ACCT 2010, MATH 1040 & 1050#
	FIN 3260	Managerial Finance II	3	F/S	FIN 3250#
	MATH 1220	Calculus II	4	F/S/Su	MATH 1210
	MATH 2210	Calculus III	4	F/S/Su	MATH 1220
	MATH 2270	Linear Algebra	3	F/S/Su	MATH 1220
	MATH 2280	Differential Equations	3	S	MATH 1220 & 2270**
	MATH 3120	Transition to Advanced Math	3	F/S	MATH 1220 & 2270
	MATH 3500	Actuarial Mathematics	3	S-Even	MATH 1100 or MATH 1210
	MATH 3700	Probability and Statistics	4	F/S/Su	MATH 1220
	MATH 3770	Mathematical Modeling	3	S-Odd	MATH 3700
	MATH 4400	Advanced Calculus I	3	F	MATH 2210 & 3120
Select 1 Programming Class	CS 1400	Fundamentals of Programming	3	F/S	CSIS 1030 or MATH 1050 or Permis.
	CS 1410	Object Oriented Programming	3	F/S/SU	CS 1400
Chose One Elective Course (3 credits required)	MATH 3130	Modern Geometries	3	S	MATH 3120
	MATH 3160	Number Theory	3	F-ODD	MATH 3120
	MATH 3190	Fundamentals of Data Science	3	S	MATH 2140, (MATH 2170 or 2270), ANLY 4100, (CS1400)
	MATH 3250	Complex Variables	3	S-ODD	MATH 2210
	MATH 3600	Numerical Analysis	3	S-EVEN	MATH 2250 or 2280 & comp. knowledge
	MATH 3800	Partial Differential Equations	3	F-ODD	MATH 2210 and 2250 or 2280
	MATH 3990	Undergraduate Research	1-3	As Needed	Instructor Permission; may repeat up to 5 cr.
	MATH 4220	Abstract Algebra I	3	F	MATH 3120
	MATH 4230	Abstract Algebra II	3	S-EVEN	MATH 4220
	MATH 4340	Topology	3	F-EVEN	MATH 3120
	MATH 4410	Advanced Calculus II	3	S-ODD	MATH 4400
MATH 4700	Special Topics	1-3	As Needed	Instructor Permission	

MATH 3190 is strongly recommended but has additional prereqs.

Additional Degree Requirements:

In addition to the above-listed requirements, to complete a Bachelor's Degree at SUU, students must have a total of 40 upper-division credits, and 120 credits total. Pure Math majors may need an additional 6-11 upper division credits, and 30 or more free elective credits to meet both of those requirements.

All courses must be passed with a C or better to be counted in the major; however, some of the business courses will allow a D- in the prerequisite to move on to the following course.

It is highly recommended that for this degree, students seek a minor from Business. Minor info. is included on the following page.

* PHYS 2210/2215 is the recommended Physical Science GE course for students seeking advanced degrees in mathematics.

**Can be taken concurrently

Indicates that the course will likely need Advisor override due to the prerequisites or major attribute restriction.

Recommended Minors for this degree:

Finance Minor - Courses in Bold are part of the Actuarial Science Major Already					
	Course	Title	Cr.	Sched.	Prerequisites/Notes
Required Minor Courses	ACCT 2010	Accounting Principles	3	F/S/SU	
	ECON 2020	Macroeconomics	3	F/S/SU	
	MATH 1040	Statistics	4	F/S/SU	MATH 1010 or 23+ ACT
	FIN 3250	Managerial Finance I	3	F/S/SU	ACCT 2010, MATH 1040 & MATH 1050
	FIN 3750	Investments	3	F/S/SU	Advisor Permission or Approved Minor
Finance Minor Electives (6 credits required)	FIN 2870	Personal Finance	3	F/S/SU	
	FIN 3110	Risk and Insurance	3	F	Advisor Permission or Approved Minor
	FIN 3260	Managerial Finance II	3	F/S	FIN 3250
	FIN 3770	Financial Institutions & Markets	3	F/S	Advisor Permission or Approved Minor
Economics Minor - Courses in Bold are part of the Actuarial Science Major Already					
	Course	Title	Cr.	Sched.	Prerequisites/Notes
Required Minor Courses	ECON 2010	Microeconomics	3	F/S/SU	
	ECON 2020	Macroeconomics	3	F/S/SU	
Select one of the two:	ECON 3010	Managerial Economics	3	F/S/SU	MATH 1040 & ##
	ECON 3020	Macroeconomics for Business Decisions	3	S	ECON 2010, 2020, MATH 1040, ##, or app minor
Economics Minor Elective Course Options (9 credits required)	ECON 3170	Decision Modeling	3	F/S	ECON 2010, 2020, MATH 1040, ##
	ECON 3210	International Econ & Finance	3	F	ECON 2010 & 2020
	ECON 3230	Gender Economics	3	S	ECON 2010
	ECON 3700	Sports Economics	3	F	ECON 2010
	ECON 3840	Public Finance	3	F-EVEN	ECON 2010
	ECON 4200	Human Resource Economics	3	As Needed	ECON 2010, 2020, MATH 1040, ##
	ECON 4260	Principles of Econometrics	3	F	ECON 2010, 2020, MATH 1040, ##
	ECON 4270	Advanced Econometrics	3	S	ECON 4260
	ECON 4500	Economics of Strategy	3	As Needed	ECON 2010, 2020, 3010, MATH 1040, ##
ECON 4900	Special Topics	2-4	S	ECON 2010, 2020, MATH 1040, 1100	
Management Minor - Courses in Bold are part of the Actuarial Science Major Already					
	Course	Title	Cr.	Sched.	Prerequisites/Notes
Required Minor Courses	ACCT 2010	Accounting Principles	3	F/S/SU	
	ECON 2010	Microeconomics	3	F/S/SU	
	MATH 1040	Statistics	4	F/S/SU	MATH 1010 or MATH ACT 23+ Can be subbed with MATH 3700
	MGMT 3180	Management & Organizations	3	F/S/SU	Advisor Permission
Management Minor Elective Courses (9 credits required)	HRHM 3000	Intro to Hospitality Mgmt.	3	S/SU	
	MGMT 3050	International Business	3	F/S	Advisor Permission
	ENTR 3210	Entrepreneurship	3	F/S	ACCT 2010, FIN 3250 & Advisor Permiss.
	MGMT 3240	Human Resource Management	3	F/S/SU	MGMT 3180
	MGMT 4200	Business, Gov't, & Ethics	3	F/S/SU	Advisor Permission

- Students must take MATH 1100 or MATH 1210 or ECON 2500