

Applied Mathematics Actuarial Science Emphasis, Bachelor of Science



Suggested Graduation Plan							
Semester 1				Semester 2			
MATH	119	Trigonometry *+	3	MATH	184	Calculus I *	4
RELT	141	Christian Beliefs +	3	MATH	221	Elementary Statistics and Probability *	3
ENGL	110	Writing for General Audiences +	3			Engaging Globally Elective (PSYC, SOCI HIST, etc) +	3
CORE	100	College Success +	1	BSAN	220	Data Analysis Tools *	3
BKNA		Activity Elective +	1	CPTR	129	Fundamentals of Data *	3
CPTR	226	Introduction to Programming *	3				
Total Credits			14	Total Credits			16
Semester 3				Semester 4			
MATH	285	Calculus II *	4	MATH	286	Calculus III *	4
MATH	240	Logic, Proof, and Set Theory *	3	MATH	352	Linear Algebra *	3
ECON	235	Principles of Microeconomics °*	3	BKNA	155	Concepts of Wellness +	2
ENGL	212	Writing for Scholarly Audiences +	3	COMM	105	Public Speaking °+	2
ACCT	211	Principles of Accounting I °*	3	RELB		Religion (Biblical) Elective +	3
				ECON	236	Principles of Macroeconomics °*	3
Total Credits			16	Total Credits			17
Semester 5 or 7				Semester 6 or 8			
LITR		Literature or PHIL Elective +	3	MATH	385	Modeling with Diff Eq ^^(spring even)	3
REL		Religion Elective +	3	MATH	499	Mathematics Seminar ^^ (spring even)	2
BUAD	325	Business Communication *	3	RELB		Religion Biblical Elective +	3
		GEOG, HIST, LEAD, PLSC, PSYC, SOCI	6			CHEM, BIOL, or PHYS +	3
		or ENGL 375 or PNCE 215 (2 different pre)I+				Electives	3
		Electives	3				
Total Credits			15	Total Credits			14
Semester 5 or 7				Semester 6 or 8			
MATH	331	Probability ^^ (fall-even)	4	MATH	332	Statistics ^^ (fall odd)	3
FNCE	325	Business Finance °*	3	MATH	335	Probability Exam Prep ^^ (spring-odd)	3
FNCE	330	Financial Institutions & Markets °+	3	CPTR	310	Data Structures & Algorithms *	3
		ART, HMNT 305, MUHL, MUTH, PHOT +	1	RELT	305	Christian Ethics °+	3
		300+ Elective	5	ACCT	212	Principles of Accounting II °*	3
						ART, HMNT 305, MUHL, MUTH, PHOT +	1
Total Credits			16	Total Credits			16

Key

^ Alternate year course | ° Other courses may also meet this requirement. See the Union College Bulletin

* This class is specific to this major | + This satisfies a general education requirement

Notes

Internship required.

124 completed credit hours are required for graduation. 36 hours must be upper division (300 level or above).

This sample guide is intended only to show you how a program might be arranged. Course schedules may change and it is possible that your courses will not be taken exactly in the order shown. Your academic advisor will help you design a program around your educational needs and goals.

Applied Mathematics, Actuarial Science Emphasis, Bachelor of Science

Required courses

General Education Core

Required courses (41 hours)

1. Following Christ

A	RELB 115	Encountering Jesus as Savior	3
or	RELT 110	Intro to Christian Faith and Adventism (3)	
or	RELT 141	Christian Beliefs (3)	
B	RELB	(Biblical Studies)	3
C	REL_	Religion Elective	3

2. Thinking Deeply as a Christian

	RELG	(General Studies)	3
or	RELH 410	History of the Christian Church (4)	
or	RELT 305	Christian Ethics (3)	
or	300+	RELB or RELT course (3)	

3. Thinking Analytically

A	College-level science with a lab	4	
or	BIOL 106	Human Biology (3)	
or	BIOL 109	Humanity and Our Environment (3)	
or	BIOL 110	Genes and Society (3)	
or	SCNC 377	Origins (3)	
B	MATH 221	Elementary Statistics & Probability	3

4. Communicating Effectively

A	COMM 105	Public Speaking	2
or	COMM 205	Intro to Interpersonal Communication (2)	
B	ENGL 110	Writing for General Audiences	3
C	ENGL 212	Writing for Scholarly Audiences	3

5. Engaging Globally

A	ECON, GEOG, HIST, LEAD, PLSC, PHYC or SOCI	3
B	An additional course from category 5A (different discipline)	3
or	ENGL 375 (3)	
or	FNCE 215	

6. Living with Purpose and Wonder

A	LITR or PHIL	3	
B	ART, HMNT 305, MUHL, MUTH or PHOT	3	
or	MUPF	(ensembles) (2 credits)	
or	MUPF	(lessons) (4 credits)	
C	BKNA 155	Concepts of Wellness	2
D	BKNA	Physical activity elective	1

7. College Success

A	CORE 100	College Success	1
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Mathematics Core and Cognates

Required courses (66 hours)

Core courses

MATH 119	Trigonometry*	3
MATH 184	Calculus I	4
MATH 221	Elementary Statistics and Probability	3
MATH 240	Logic, Proof, and Set Theory	3
MATH 285	Calculus II	4
MATH 286	Calculus III	4
MATH 331	Probability	4
MATH 332	Statistics	3
MATH 335	Probability Exam Prep	3
MATH 352	Linear Algebra	3
MATH 499	Mathematics Seminar	2

Major Cognates

BSAN 220	Data Analysis Tools	3
BUAD 325	Business Communication	3
BUAD 225	Creativity & Innovation in Business	3
CPTR 129	Fundamentals of Databases	3
CPTR 226	Introduction to Programming	3
CPTR 310	Data Structures and Algorithms	3

Emphasis Core and Cognates (Select any 4 courses from below)

ACCT 211	Principles of Accounting I	3
ACCT 212	Principles of Accounting II	3
ECON 235	Principles of Microeconomics	3
ECON 236	Principles of Macroeconomics	3
FNCE 325	Business Finance	3
FNCE 330	Financial Institutions & Markets	3

Internship Required

* This course can be skipped with sufficient ACT, SAT, or ALEKS score.

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