



MARYVILLE
UNIVERSITY

ACTUARIAL SCIENCE

Minimum of **120** credit hours required for a Bachelor of Arts degree.
Last **30** credit hours must be from Maryville University

NAME: _____ REVIEWER: _____ DATE: _____

I. MCORE (36 Hours)	Credits	SEM/YR	Grade	Notes
A. Social Discovery (6)				
CORE 101: Discovering Community	3			
Student Choice	3			
CORE 401: Senior Capstone				In Major: DSCI 498
B. Civic Discovery (6)				
CORE 201: Discovering the Nation	3			
Student Choice	3			
C. Cultural Discovery (6)				
CORE 301: Discovering the World	3			
Student Choice	3			
D. Creative Discovery (9)				
COMP 104: Writing Across the Disciplines II	3			
Student Choice	3			
Student Choice	3			
F. Scientific Discovery (9)				
MATH 102: Everyday Data	3			
Student Choice	3			
Student Choice	3			
II. Major Requirements (84 Hours)	Credits	SEM/YR	Grade	Notes
A. Other (14 hours)				
COMP 101 Writing Across the Disciplines I	3			
COMM 110 Public Speaking	3			
MATH 151 Calculus I	4			
MATH 152 Calculus II	4			
B. Major (55 hours)				
DSCI 201 Math Modeling – Excel	3			
DSCI 302 Introduction to R	3			
DSCI 498 Capstone Project	3			Capstone
MATH 251 Calculus III	4			
MATH 316 Applied Linear Algebra	3			
MATH 370 Probability I	3			
MATH 371 Probability II	3			
MATH 372 Mathematical Statistics	3			
MATH 405 Statistical Modeling I	3			
ACSC 305 Insurance and Risk	3			
ACSC 394 Actuarial Seminar I	3			
ACSC 407 Loss Models	3			
ACSC 414 Theory of Interest	3			
ACSC 415 Financial Mathematics	3			
ACSC 416 Corporate Finance I	3			
ACSC 421 Actuarial Modeling I	3			
ACSC 422 Actuarial Modeling II or DSCI 412 Predictive Modeling	3			
ACSC 495 Actuarial Seminar II	3			
C. Electives (15 hours)				
ACCT 210 Financial Accounting	3			Recommended Electives: ACSC 418, ACSC 422, ACSC 496, ACSC 498, ACSC 299, ACSC 399, ACSC 499, COSC 150, COSC 151, COSC 435, COSC 440, COSC 443, COSC 445, DSCI 200, DSCI 301, DSCI 303, DSCI 304, DSCI 307, DSCI 408, DSCI 412, DSCI 417
ECON 203 Principles of Economics	3			
Elective from ACSC, COSC, DSCI, and MATH	3			
Elective from ACSC, COSC, DSCI, and MATH	3			
Elective from ACSC, COSC, DSCI, and MATH	3			
Degree Total	120			

SAMPLE COURSE PLAN

This is an example of the sequence of course work to complete this major.

Fall of Freshman Year	Credits	Spring of Freshman Year	Credits
CORE 101: Discovering Community	3	CORE 201: Discovering the Nation	3
COMP 101 Writing Across the Disciplines I	3	COMP 104: Writing Across the Disciplines II	3
MCORE – Student Choice	3	ACSC 415 Financial Mathematics I (Exam FM)	3
ACSC 414 Theory of Interest (Exam FM)	3	ACSC 495 Actuarial Seminar II (Exam FM)	3
MATH 151 Calculus I	4	MATH 152 Calculus II	4
Total	16	Total	16
Fall of Sophomore Year	Credits	Spring of Sophomore Year	Credits
CORE 301: Discovering the World	3	MATH 102: Everyday Data	3
ACSC 305 Insurance and Risk	3	MCORE – Student Choice	3
MATH 370 Probability I (Exam P)	3	MATH 371 Probability II (Exam P)	3
DSCI 201 Math Modeling-Excel	3	ACSC 394 Actuarial Seminar I (Exam P)	3
MATH 251 Calculus III	4	MATH 316 Applied Linear Algebra	3
Total	16	Total	15
Fall of Junior Year	Credits	Spring of Junior Year	Credits
MATH 372 Mathematical Statistics (VEE)	3	MATH 405 Statistical Modeling I (Exam SRM)	3
ACSC 416 Corporate Finance I (VEE)	3	ACSC 407 Loss Models (Exam FAM)	3
Elective	3	DSCI 302 Introduction to R	3
MCORE – Student Choice	3	COMM 110 Public Speaking	3
MCORE – Student Choice	3	MCORE – Student Choice	3
Total	15	Total	15
Fall of Senior Year	Credits	Spring of Senior Year	Credits
ACSC 421 Actuarial Modeling I (Exam FAM)	3	CORE 401: DSCI 498	3
MCORE – Student Choice	3	ACSC 422 Actuarial Modeling II or DSCI 412 Predictive Modeling	3
Elective	3	MCORE – Student Choice	3
Elective	3	Elective	3
Elective	3		
Total	15	Total	12

Notes:

- SOA Exams: FM, P, SRM, FAM, ALTAM
- Internships: ACSC 299, 399, 499
- Actuarial Science Club Events
- Double Major (120 credits): Actuarial Science and Computer Science, Data Science, Mathematics, or Accounting
- Dual Degree (144 credits): Actuarial Science, Computer Science, Data Science, and Mathematics
- Students with 75+ credits and a GPA of 3.0 or higher are encouraged to apply for early access to graduate programs at: www.maryville.edu/apply
- Bachelor's + Post-Bachelor Certificates (15 credits): Fundamentals of AI, Machine Learning, Big Data, Advanced AI
- Bachelor's + Master's Pathway (108 undergraduate credits + 12 dual credits + 24 graduate credits): Programs available in Actuarial Science, AI, and Data Science