

BS IN ACTUARIAL SCIENCE
Department of Mathematical Sciences

Sample Degree Plan

Fall 1	ACCT 2301 - Introductory Financial Accounting UNIV 1010 and NATS 1101 - Freshman Seminar and Natural Sciences and Mathematics Freshman Seminar RHET 1302 - Rhetoric MATH 2417 - Calculus I CS 1336 - Programming Fundamentals CS 1136 - Computer Science Laboratory	3 1 3 4 3 1
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Spring 1	ECON 2301 - Principles of Macroeconomics CS 1337 /MATH 2370 - Computer Science I/Introduction to Programming with MATLAB MATH 2418 - Linear Algebra MATH 2419 - Calculus II (Integral Calculus) ACCT 2302 - Introductory Management Accounting	3 3 4 4 3
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Fall 2	MATH 3351 - Advanced Calculus ACTS 4308 - Actuarial Financial Mathematics ECON 2302 - Principles of Microeconomics BCOM 3300 - Professionalism and Communication in Business PHYS 2325/PHYS 2421/CHEM 1311 - Mechanics/ Honors Physics I - Mechanics and Heat/ General Chemistry I PHYS 2125/ PHYS 2125/ CHEM 1111 - Physics Laboratory I/Honors Physics Laboratory I/General Chemistry Laboratory I	4 3 3 3 3 1
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Spring 2	PHYS 2326/PHYS 2422 /CHEM 1312 - Physics II/ Honors Physics II - Electromagnetism and Waves/ General Chemistry II	3
	PHYS 2126/PHYS 2126 /CHEM 1112 - Physics Laboratory II/ Honors Physics Laboratory/ General Chemistry Lab II	1
	ITSS 3300 - Information Technology for Business	3
	COMM 1311 - Survey of Oral and Technology Based Communication	3
	STAT 3355 - Data Analysis for Statisticians and Actuaries	3
	HIST 1301 - U.S. History Survey to Civil War	3
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Fall 3	ITSS 4301 - Database Systems	3
	STAT 4351 - Probability	3
	ARTS 1301 - Exploration of the Arts	3
	HUMA 1301 - Exploration of the Humanities	3
	GOVT 2305 - American National Government	3
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Spring 3	ACTS 4301 - Long Term Actuarial Mathematics I	3
	ACTS 4302 - Investment and Financial Markets	3
	GOVT 2306 - State and Local Government	3
	STAT 4352 - Mathematical Statistics	3
	HIST 1302 - United States History Survey from Civil War	3
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Fall 4	ACTS 4303 -Long Term Actuarial Mathematics II	3
	ACTS 4304 - Short Term Actuarial Mathematics I	3
	ACTS 4307 - Statistics for Risk Modeling (SRM)	3
	ACTS 4309 - Theory of Options	3
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Spring 4	STAT 4382 - Stochastic Processes	3
	MATH 2420 - Differential Equations with Applications	4
	ACTS 4305 - Short Term Actuarial Mathematics II	3
	ACTS 4310 - Predictive Analysis	3
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Electives:

1. RMIS 3370 - Principles of Risk Management and Insurance
2. RMIS 4331 - Business Liability Risk Management and Insurance
3. MATH 3310 - Theoretical Concepts of Calculus
4. MATH 3311 - Abstract Algebra I
5. MATH 3379 - Complex Variables

Note:

1. MATH 2417 and MATH 2419 requirements can be fulfilled by completing MATH 2413, MATH 2414 and MATH 2415
2. Students may opt out of PHYS 2125 if they choose to take PHYS 2421 - Honors Physics I
3. Needed prerequisites are satisfied if above degree program is followed in the sequence as indicated. Otherwise please see the catalog for prerequisite requirements.
4. 51 semester credit hours of upper division courses (course numbers beginning with 3 or greater) are required for all degrees.
5. 120 semester credit hours required for graduation.
6. Research Experiences for Undergraduates (REUs) during the summer are highly recommended for Mathematics majors planning to continue their education in graduate school, whether in Mathematics or another discipline. Formal REU programs exist at many universities, national laboratories, and even overseas, and usually offer a stipend typical of a graduate teaching assistantship. Announcements for REU programs usually appear online in December and application deadlines usually range from late January to early March. Requirements vary, but students are often eligible if they have completed their freshman year.