



ACTUARIAL SCIENCE

What YOU will learn:

Your major in actuarial science will move you to an area typically involving analysis of the various contingencies (birth, death, marriage, retirement, sickness, and losses due to accidents or negligence) that individuals and organizations face and their impact on the many types of financial security arrangements, both public and private. You will gain the ability to apply the concept of actuarial science in solving problems related to financial security; understand the additional considerations in practical applications of actuarial theory, such as assumption setting, Actuarial Standards of Practice, the professional code of conduct, and effective communication.

Your core classes will include a complete calculus sequence, as well as courses in statistics and probability. You will take courses in Financial Mathematics, Life Contingencies, Risk Theory, and Actuarial Applications in Practice. You will also have the opportunity to take courses in Credibility Theory, Survival Models, and Property Casualty Actuarial Science.

Career opportunities YOU will have:

As an actuarial science major, you will use your skills to design, price, and value financial security systems such as insurance and retirement plans. A creative aspect of actuarial work lies in the forecasting of events. Actuaries are frequently called upon to make decisions that affect the fiscal soundness of financial security programs well into the future. Nebraska graduates have obtained jobs in the field throughout the United States and beyond. Employment of recent Nebraska graduates includes:

- Actuarial Analyst, Lincoln Financial Group
- Actuarial Analyst, Louis & Ellis
- Actuarial Assistant, Mutual of Omaha
- Actuarial Senior Analyst, Cigna
- Actuarial Technician, Allstate Financial
- Direct Bill Specialist, National Indemnity
- E&S Actuarial Analyst, Scottsdale Insurance
- Financial Representative, Northwestern Mutual
- Office Automation Assistant, USDA
- Underwriting, Lincoln Financial Group

Why NEBRASKA for Actuarial Science?

The UNL Actuarial Science program is recognized as a Center of Actuarial Excellence by the Society of Actuaries. Being in the first group of schools awarded this prestigious designation emphasizes the program's strong academic curriculum, tenured faculty, connections with industry, and high quality graduates produced each year. Our program is a part of the Finance Department in the College of Business Administration. Majors and minors are offered through both the College of Business and the College of Arts and Sciences.

Engage with department faculty and current students by joining the Actuarial Science Club! The Actuarial Science Club provides students with a better understanding of the actuarial profession and careers, promotes actuarial science in educational institutions, assists students in preparing for the professional actuarial examinations, and fosters close relationships among students in the common pursuit of an actuarial career. Participation student organizations like this one will help build your resume and give you an advantage in today's rigorous job market!





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	COURSE NAME	HOURS
FIRST Semester	MATH 106: Calculus I (ACE 3)	5
	ACE 1: Written texts/research & knowledge skills	3
	Language Prerequisite - 201 Level (CDR E)	3
	CSCE 101: Fundamentals of Computer Science (CDR F)	3
	CSCE 101L: Fundamentals of Computer Science Lab	1
Total Hours		15

	COURSE NAME	HOURS
SECOND Semester	MATH 107: Calculus II	4
	ECON 211: Principles of Macroeconomics (ACE 6)	3
	Language Prerequisite - 202 Level (CDR E)	3
	ACE 4: Scientific methods & knowledge of natural/physical world	3
	College Distribution Requirement (CDR) C: Humanities	3
Total Hours		16

THIRD Semester	MATH 208: Calculus III	4
	ACTS 440: Interest Theory	4
	JGEN 220: Business Communication Strategies (CDR A)	3
	ECON 212: Principles of Microeconomics (ACE 8)	3
	ACCT 201: Introduction to Accounting I	3
Total Hours		17

FOURTH Semester	STAT 380: Statistics & Applications	3
	ACTS 402: Problem Lab: Basic Actuarial Applications of Financial Mathematics (Take Exam FM)	1
	MATH 221 or 314: Differential Equations or Linear Algebra	3
	COMM 286 or MRKT 257 (ACE 2): Communication	3
	ACTS 441: Introduction to Financial Economics	3
Total Hours		13

FIFTH Semester	STAT 462: Introduction to Mathematical Statistics I: Distribution Theory	4
	ACTS 401: Problem Lab: Basic Actuarial Applications of Probability (Take Exam P)	1
	ACE 5: Humanities	3
	FINA 363: Investment Principles	3
	MATH 221 or 314: Differential Equations or Linear Algebra	3
Total Hours		14

SIXTH Semester	STAT 463: Introduction to Mathematical Statistics II: Statistical Inference	4
	ACTS 470: Life Contingencies I	3
	CDR D: Social Sciences	3
	FINA 467: Options, Futures and Derivative Securities	3
	FINA 307 or 388: Risk Management	3
Total Hours		16

SEVENTH Semester	ACTS 471: Life Contingencies II	3
	ACTS 473: Introduction to Risk Theory	3
	ACTS 430: Actuarial Applications of Applied Statistics	3
	ACE 7: Fine Arts	3
	CDR B, BL: Natural, Physical & Mathematical Sciences w/ Lab	4
Total Hours		16

EIGHTH Semester	ACTS 475: Actuarial Applications in Practice (ACE 10)	3
	ACE 9 (ECON 321: Intro to International Economics Suggested)	3
	FINA 461: Advanced Finance	3
	Elective	1
	ACTS 474: Introduction to Property/Casualty Actuarial Science	3
Total Hours		13

DISCLAIMER: This document represents a sample 4-year plan for degree completion with a major of interest in the College of Arts and Sciences. Actual course selection and sequence may vary and should be discussed individually with an Academic Advisor at the college and department level.