Academics

Your major in actuarial science will move you to gain the ability to apply the concept of actuarial science in solving problems related to financial security and 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, Actuarial Applications in Practice, Credibility Theory, Survival Models and Property Casualty Actuarial Science.

Opportunities

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. Here are examples of recent graduates’ employment:

- Actual Technician / ROCKHILL INSURANCE
- Actuarial Assistant / MILLIMAN CONSULTING
- Actuarial Development Program / LINCOLN FINANCIAL GROUP
- Associate Actuarial Analyst / COVENTRY HEALTH CARE
- Executive Actuarial Analyst / PACIFIC ORIENT INSURANCE CO. BERHAD
- Instructional Technology Specialist / UNIVERSITY OF NEBRASKA-LINCOLN
- Trainee Actuary / KPMG
- Underwriting Service Assistant / STATE FARM
- Value Chain Analyst / ATS SECURED

Experience

In the College of Arts and Sciences, we know experience is valuable and goes beyond the classroom. We strive to help you connect your academics with research, internships, education abroad, service learning and leadership experiences. Take advantage of opportunities in actuarial science such as:

- Joining the Actuarial Science Club and running for office like the treasurer or club president
- Interning for Allstate Financial, Blue Cross Blue Shield, Mutual of Omaha, Ameritas Life Insurance or many more
- Travelling abroad and studying in Brazil, China, England, Italy or a destination that matches your interests
- Volunteering with the Center for Civic Engagement
- Researching actuarial standards of practice

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# ACTUARIAL SCIENCE

## 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**

## SECOND SEMESTER
- **MATH 107: Calculus II** 4
- **ECON 211: Principles of Macroeconomics (ACE 6)** 3
- **ACE 5: Humanities** 3
- **CDR D: Social Sciences** 3
- **Language Prerequisite - 202 Level (CDR E)** 3

**Total Hours: 16**

## THIRD SEMESTER
- **MATH 208: Calculus III** 4
- **ACTS 440: Interest Theory** 4
- **BSAD 220: Business Communication Strategies (CDR A)** 3
- **ECON 212: Principles of Microeconomics (ACE 8)** 3
- **ACCT 200: Accounting for Business Decisions** 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
- **ACTS 441: Introduction to Financial Economics** 3
- **MATH 221: Differential Equations (recommended)** 3
- **COMM 286 or MRKT 257 (ACE 2): Communication** 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 4: Scientific Methods & Knowledge of Natural/Physical world** 3
- **FINA 363: Investment Principles (recommended)** 3
- **MATH 314: Linear Algebra (recommended)** 3

**Total Hours: 14**

## SIXTH SEMESTER
- **STAT 463: Introduction to Mathematical Statistics II: Statistical Inference** 4
- **ACTS 470: Life Contingencies I** 3
- **College Distribution Requirement (CDR) C: Humanities** 3
- **FINA 307 or 388: Risk Management** 3
- **FINA 467: Options, Futures and Derivative Securities** 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
- **ACTS 474: Introduction to Property/Casualty Actuarial Science** 3
- **ACE 9 (ECON 321: Intro to International Economics Suggested)** 3
- **FINA 461: Advanced Finance (recommended)** 3
- **Elective** 1

**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.