

ACTUARIAL SCIENCE (BUSINESS)

Description

An actuary is a mathematically-oriented business person who will most likely be a manager or supervisor at some point in his/her career. Thus, a course of study culminating in a bachelor of science degree in business administration with a major in actuarial science is an excellent educational background for prospective actuaries. Additional information is available at www.BeAnActuary.org (<http://www.BeAnActuary.org>).

The actuarial science program is designed to prepare students for the current industry demands. Because the demands change on a regular basis, oftentimes the number of hours, the sequencing of courses, and the specific requirements change for this major. Students should continue to consult with the department for the appropriate selection and listing of course requirements.

The actuarial science program is proud to have been named one of the first Centers of Actuarial Excellence by the Society of Actuaries.

All actuarial science students are encouraged to visit the actuarial science program's website (<http://business.unl.edu/academic-programs/departments/finance/actuarial-science/>) and an actuarial science program faculty advisor for more information about the program, including the Actuarial Science Club, sequencing of courses, scholarship opportunities, and the requirements for achieving professional actuarial designations.

In addition, because of the mathematical orientation for this program, actuarial science majors are required to make some modifications to the degree program requirements. These requirements (with a reminder that all required coursework must be taken for a grade) are noted below.

Admission

Major/Department Admission

Admission requirements for all majors in the College are the same as those for university admission as noted under the University of Nebraska–Lincoln General Admission Requirements.

Other

Substitutions When Changing Majors

If actuarial science students change to a different major in the College of Business, the following substitutions may be made:

ACTS 440 Interest Theory for FINA 361 Finance

STAT 380 Statistics and Applications for ECON 215 Statistics

COLLEGE REQUIREMENTS

College Admission

The entrance requirements for the College of Business (CoB) are the same as the University of Nebraska–Lincoln General Admission Requirements.

Admission Deficiencies/Removal of Deficiencies

Students admitted to the College of Business with core course deficiencies are advised to remove these deficiencies as soon as possible.

College-level coursework taken to remove deficiencies MAY NOT be used to meet degree requirements in the College.

Honors Program

Nebraska Business Honors Academy

The Nebraska Business Honors Academy is a unique cohort-based program for high-ability students with demonstrated leadership potential. The goal of the Academy is to develop critical thinking, problem-solving, and communications skills to prepare graduates to be strategic decision-makers and innovators. The Academy combines a rigorous curriculum (including approximately 40 credit hours of cohort-based courses) with leadership training, co-curricular activities, and corporate involvement. Nebraska Business Honors Academy requirements differ from those listed in the catalog. Students work closely with the Academy's advisors on appropriate sequencing and enrollment in Academy-specific requirements.

Jeffrey S. Raikes School of Computer Science and Management

The purpose of the Jeffrey S. Raikes School of Computer Science and Management is to produce unique graduates who combine business knowledge and computing fundamentals for enterprise information and software systems. Graduates will be professionals who understand the multiple levels of new information systems and who become the technology sector's innovators, product developers, entrepreneurs, chief information officers, and CEOs. Students interested in learning more about the Jeffrey S. Raikes School of Computer Science and Management program and curriculum requirements (which may differ from those listed here) are encouraged to call 402-472-6000 or visit the Jeffrey S. Raikes program website (<https://raikes.unl.edu>). Students may also reference the Jeffrey S. Raikes School of Computer Science and Management catalog section under Academic Programs and Policies.

College Degree Requirements

Overview of College Degree Requirements

The curriculum requirements for the College consist of coursework in three areas. All coursework (except electives and where otherwise noted) must be taken for a grade.

1. Non-Business Requirements (NBR)

- Consist primarily of College and University ACE (Achievement-Centered Education) coursework

2. Business Core

- Foundation (BCF), which also includes ACE 6 & 8
- Intermediate (BCI)
- Advanced-Major (BCA-M)
- Advanced-Capstone (BCA-C), (ACE 10)

3. Electives

Non-Business Requirements (NBR)

(Most of the ACE requirements)

Eight Courses (normally 24-26 hours)

All students in the College of Business will take the following non-business courses (unless otherwise noted).

- While NBR 1, 2, 7, and 8 identify specific ACE options to choose from or identify an ACE course specifically required for the College, NBR 3, 4, 5, and 6 allow students to select courses according to their personal interests (and meet ACE 4, 5, 7, and 9).
- Most students will take coursework to fulfill these requirements during the freshman/sophomore year. However, if hours are still needed during the junior/senior year, there may also be options to 'double count' coursework for NBR 3 (ACE 4) and/or NBR 6 (ACE 9) toward the major (BCA-M) or a minor. This is likely to be of most benefit to 'transfer-in students' due to the nature of the program and when ACE requirements are traditionally taken.

All coursework for NBR must be taken for a grade.

NBR 1: Written Communication (ACE 1)

Choose *ONE* of the following:

ENGL 150 Writing and Inquiry

ENGL 151 Writing and Argument

Students should refer to the course descriptions to select the **one** course best suited to individual interests. While several communication courses may be selected to fulfill the University ACE 1 outcome, **one** of the above is a specific requirement for the College of Business and will fulfill both requirements with one course. ENGL 150 and ENGL 151 are restricted to first- and second-year students. Upperclass students will need to take ENGL 254 Writing and Communities as a substitute.

NBR 2: Mathematical, Computational, Statistical or Formal Reasoning Skills (ACE 3)

Choose *ONE* of the following:

MATH 104 Applied Calculus

MATH 106 Calculus I

Any advanced calculus course above the 106 level

Notes regarding the selection of coursework for NBR 2 (ACE 3):

- **Credit cannot be given for both MATH 104 and MATH 106.** Students must determine the appropriate course early in their program.
- A first-semester student's score on the Math Placement Exam will determine eligibility for MATH 104 or MATH 106. The student should select between these classes based on the following sets of circumstances:
 - Actuarial science majors **MUST** take MATH 106 (or a higher-level calculus).
 - Actuarial science majors will also take MATH 107 Calculus II and MATH 208 Calculus III and either CSCE 101 Fundamentals of Computer Science and CSCE 101L Fundamentals of Computing Laboratory or CSCE 155A Computer Science I.
 - Raikes students **MUST** take MATH 106 (or a higher-level calculus).

- MATH 106 (or higher calculus) is **strongly encouraged** for those students majoring in accounting, majoring in finance, or considering graduate school.
- While several courses may be selected to fulfill the University ACE 3 outcome, one of the above is a specific requirement for the College of Business and will fulfill both requirements with one course.
- Freshman students who place below MATH 104 on the Math Placement Exam may want to consider summer school in order to maintain their sequence of courses.

Math Placement Exam (MPE)

Students admitted to the College of Business are required to take a Math Placement Exam prior to enrolling in the college math requirement of MATH 104 or MATH 106 (or higher math).

- The results of this examination determine which math course students will enroll in their first semester on campus.
- The Math Placement Exam may be retaken if a student feels that they are able to test into a higher level course.
- Students lacking sufficient high school preparation in math may need to enroll in equivalent high school preparatory courses, as will be determined by the MPE.
- Preparatory courses should be taken as soon as possible to avoid future sequencing problems.
- Additional information about the exam can be found at the Math Placement website (<http://www.math.unl.edu/resources/undergraduate/mpe>).

Whether required to enroll in preparation coursework first, as indicated on the MPE (MATH 100A Intermediate Algebra, MATH 101 College Algebra and/or MATH 103 College Algebra and Trigonometry), or in one of the required courses, it is critical to begin math the first semester on campus.

NBR 3: The Study of Scientific Methods and Knowledge of the Natural and Physical World (ACE 4)

Choose *one* course from ACE 4 Certified Courses. (Course credit will vary between 3-4 credit hours.)

- Agribusiness majors – NBR 3 (ACE 4) – AGRI 115 Biotechnology: Food, Health and Environment; AGRO 131 Plant Science; ENTO 115 Insect Biology; MSYM 109 Physical Principles in Agriculture and Life Sciences; NRES 108 Earth's Natural Resource Systems Laboratory; PLPT 110 Molds and Man may be taken to fulfill the science requirement (NBR 3–ACE 4) as well as a requirement for the major (BCA-M).

NBR 4: Study of Humanities (ACE 5)

Choose *one* course from ACE 5 Certified Courses.

- International business majors – NBR 4 (ACE 5) – FREN 301 Survey of French Literature, FREN 302 Themes in French Literature; RUSS 301 Russian Cultural Studies, RUSS 302 Studies in Russian Culture and Film, RUSS 482 Russian Literature in Translation, RUSS 483 Russian Secular and Political Folklore; SPAN 305 The Analysis of Communication in Spanish, SPAN 314 Introduction to Hispanic Literature: Spain, SPAN 315 Representative Authors of Spain, SPAN 331 War and Human Rights in Latin America may be taken to fulfill NBR 4–ACE 5 as well as a requirement for a language minor or toward the major language requirement.

NBR 5: Study of the Arts to Understand Their Context (ACE 7)

Choose one course from ACE 7 Certified Courses.

NBR 6: Global Awareness or Knowledge of Human Diversity Through Analysis of an Issue (ACE 9)

Choose one course from ACE 9 Certified Courses.

Students enrolling for their first semester with junior standing (or more) will see that the list of approved courses includes a few business courses. While this section is labeled “non-business requirements,” students may elect to enroll in one of the business courses to fulfill the ACE 9 requirement as long as prerequisites are completed (which are generally reserved for juniors or seniors). Work closely with your advisor and bring this to their attention to question how this course may potentially satisfy other degree program requirements, including in major.

The options include:

- Actuarial science majors – must complete an International Business Course as part of the degree requirements. Actuarial science majors may choose to take ECON 321 Introduction to International Economics to fulfill the IBCR as well as the global awareness requirement (NBR 6–ACE 9).
- Agribusiness majors – AECN 346 World Food Economics, AECN 367 Agricultural Development in Developing Countries, AECN 420 International Food and Agricultural Trade, AECN 425 Agricultural Marketing in a Multinational Environment, AGRI 282 Introduction to Global Agricultural and Natural Resources Issues, ENSC 110 Energy in Perspective, and HORT 200 Landscape and Environmental Appreciation may be taken to fulfill the global awareness requirement (NBR 6–ACE 9) as well as a requirement for the major.
- Business administration majors – ECON 321 and MNGT 414 International Business may be taken to fulfill the global awareness requirement (NBR 6–ACE 9) as well as a requirement for the major. (ECON 321 and MNGT 414 are also IBCR course options.)
- Economics majors – ECON 321 may be taken to fulfill the global awareness requirement (NBR 6–ACE 9) as well as a requirement for the major. (ECON 321 is also an IBCR option).
- International business majors – BSAD 320 Global Issues, BSAD 420 Global Leadership and the Culture Map, ECON 321 or MNGT 414 may be taken to fulfill the global awareness requirement (NBR 6–ACE 9) and may fill a requirement for the major. (ECON 321 or MNGT 414 are also IBCR options.)
- Management majors – MNGT 365 Managing Diversity in Organizations or MNGT 414 may be taken to fulfill the global awareness requirement (NBR 6–ACE 9) and may be able to fulfill a requirement for the major/minor depending on the option selected. (MNGT 414 is also an IBCR option.)
- An alternative to the above options is allowance of the course to count for NBR 6–ACE 9 and the associated minor—but only one or the other (major OR minor).

In any of the above instances where double counting is an option, only 3 hours of credit are awarded; students will still need to meet the 120 hours for graduation. Any course that is used for both an ACE requirement and a first major requirement is not allowed to be used towards the completion of the 300/400 upper-level requirement.

NBR 7: Business Communication (ACE 1)

BSAD 220 Business Writing

This is a business writing course that requires sophomore standing and ENGL 150 or ENGL 151 as prerequisites. While it is also an ACE 1 course, as is ENGL, BOTH are specific requirements for the College of Business.

NBR 8: Oral Communication Skills (ACE 2)

Choose one course from:

MRKT 257 Sales Communication

COMM 286 Business and Professional Communication

- Due to the importance of this requirement to the business curriculum, the College recommends taking this course on campus.
- While several other courses may be selected to fulfill the University ACE 2 requirement, COMM 286 or MRKT 257 is a specific requirement for the College of Business.

NOTE: In the selection of coursework for any of the above NBR's, the term prerequisite, when stated anywhere in this catalog, means coursework that **MUST BE COMPLETED** to enroll in the class. Concurrent enrollment in any identified prerequisite(s) is **NOT** permitted unless so indicated in the course description.

Business Core – Four Sections (approximately 62-74 hours)

- Business Core Foundation (BCF) – 18 hours
- Business Core Intermediate (BCI) – 18 hours
- Business Core Advanced–Major (BCA-M) – Hours vary from 21-33 hrs
- Business Core Advanced–Capstone (BCA-C) – 3 hours + 0 hour assessment

The foundation and intermediate courses are designed to expose students to the various business disciplines. The advanced courses are those courses identified for each of the ten majors, and the capstone course is taken in the final semester of the program. All coursework for the Business Core (except where noted differently) must be taken for a grade.

Professional Enhancement Program (PrEP) (4 hours)

Designed to develop confident, professional, and polished business students positioned for lifelong career success, the PrEP program consists of four required 1-hour courses. These courses are labeled BSAD 111 PrEP I, Investing in Strengths; BSAD 222 PrEP II, Career Development and Planning; BSAD 333 PrEP III, Internship and Job Search Strategies; BSAD 444 PrEP IV, Professional and Life Skills, and are offered across the four-year curriculum as part of the Business Core requirements.

Business Core Foundation (BCF) – Nine Courses (18 hours)

All students in the College of Business will take the following courses (unless otherwise noted).

All coursework (except BSAD 50, BSAD 111, BSAD 222, BSAD 333, and BSAD 444) must be taken for a grade. Raikes students are exempted from these courses.

BCF 1 – BSAD 111 PrEP I, Investing in Strengths

- BSAD 111
 - 1-credit-hour course (*offered Pass/No Pass only*).
 - Required of all new freshmen.
 - Taken as a freshman (*preferably first semester*).

- BSAD 111S
 - 0-credit-hour course, available exclusively to transfer students. Required of all on- and off-campus transfer students.
 - Taken as soon as possible upon transfer into the college (*preferably first semester*).

BCF 2 – BSAD 50 Business Computer Applications

- 0-credit-hour course (*offered Pass/No Pass only*).
- Offered twice per semester and should be taken in the **FIRST seven weeks of semester two**. It is a prerequisite for ECON 215, which is normally taken in the fall of the second year.
- Required basic-skills computer course that uses Access, Microsoft Word, PowerPoint, and Excel.

BCF 3 – SCMA 250 Spreadsheet Analytics

- 1-credit-hour course.
- ECON 215 Statistics is a prerequisite or may be taken concurrently.

BCF 4 – ACCT 201 Introductory Accounting I and ACCT 202 Introductory Accounting II

- ACCT 201
 - Sequential; take ACCT 201 first.
 - Prerequisite: Sophomore standing and a 2.5 cumulative GPA; or freshman standing with completion of MATH 104 or MATH 106 with a grade of C or better and a 2.5 cumulative GPA earned in 14 hours of UNL credit.
- ACCT 202
 - Sequential; take ACCT 202 following completion of ACCT 201.
 - Prerequisite: Sophomore standing, or freshman standing with completion of MATH 104 or MATH 106 with a grade of C or better; grade of C or better in ACCT 201; and a 2.5 cumulative GPA.
 - Grade of C or better in prerequisites is normally required for accounting courses.

BCF 5 – ECON 211 Principles of Macroeconomics and ECON 212 Principles of Microeconomics (ACE 8/6)

- Not sequential.
- Prerequisite: Completion of 12 hours of coursework.

BCF 6 – ECON 215 Statistics (ACE 3)

- Prerequisites: Sophomore standing; MATH 104 or MATH 106; BSAD 50; and a 2.5 GPA.
- Must take ECON 215 (not STAT 218 Introduction to Statistics nor EDPS 459 Statistical Methods nor CRIM 300 Applied Statistics and Data Processing in the Public Sector nor SOCI 206 Introduction to Social Statistics).
- Actuarial science majors **MUST** take STAT 380 Statistics and Applications instead of ECON 215; will also take STAT 462 Introduction to Mathematical Statistics I: Distribution Theory and STAT 463 Introduction to Mathematical Statistics II: Statistical Inference.

BCF 7 – BSAD 222 PrEP II, Career Development and Planning

- 1-credit-hour course (*offered Pass/No Pass only*).
- Prerequisites: Major in College of Business; sophomore standing; and a 2.5 GPA.
- Taken as a sophomore.

Business Core Intermediate (BCI) – Six Courses (18 hours)

- Prerequisites for the BCI courses include MATH (NBR2), ACCT 201, ACCT 202, ECON 211, ECON 212, ECON 215, BSAD 220, and a 2.5 GPA.
- Required of all business students regardless of major (except where noted under individual courses).
- Enrollment in BCI normally occurs during the sophomore and junior years.
- All coursework must be taken for a grade.
- Sequence with the following recommendations/restrictions:
 - Plan complete sequence of intentions to take BCI (and necessary prerequisites) to remain on schedule for graduation.
 - Enroll in courses most applicable to your major as soon as possible, particularly MRKT, FINA, and SCMA, to stay on sequence for major.
 - There are exceptions to these requirements for specific majors (ACCT, MNGT, and ACTS). Please note those exceptions.
 - If transferring, a maximum of 3 hours may apply, with further restrictions on applicability, to not exceed the 15-hour limitation. For details on transfer rules, see Transfer Credit Restrictions under Course Exclusions and Restrictions.
 - See the links for each course to know the specific prerequisites and course descriptions.

BCI 1 – BLAW 371 Legal Environment or BLAW 372 Business Law I

- Accounting majors must take BLAW 372.

BCI 2 – SCMA 350 Business Analytics/Information Analysis or in certain cases MRKT 350 Marketing Analytics

- Marketing and agribusiness majors may choose to take MRKT 350, which carries an additional prerequisite of MRKT 341.
- Students must complete SCMA 250.

BCI 3 – FINA 361 Finance

- Actuarial science majors will take FINA 461 Advanced Finance to meet this requirement.

BCI 4 – MRKT 341 Marketing

BCI 5 – SCMA 331 Operations and Supply Chain Management

BCI 6 – MNGT 301 Introduction to Management

Professional Enhancement Program – Upper level

PrEP – BSAD 333 PrEP III, Internship and Job Search Strategies

- 1-credit-hour course (*offered Pass/No Pass only*).
- Prerequisites: Major in College of Business, BSAD 222; and a 2.5 GPA.
- Taken second semester of sophomore or junior year.

PrEP – BSAD 444 PrEP IV, Professional and Life Skills

- 1-credit-hour course (*offered Pass/No Pass only*).
- Prerequisites: Major in College of Business; senior standing or by permission; and a 2.5 GPA.
- Taken first or second semester of senior year.

Business Core Advanced-Major (BCA-M) – (21-33 hours)

- Coursework for the major requires completion of specific, required courses of the department, along with other guidelines.
- Refer to the Major page for a listing of requirements.

- Careful and advanced planning is necessary, as some courses for the major may not necessarily be available every semester and classes for the major are limited in the summer sessions.
- ALL coursework for the major must be taken for a grade (students may not take classes Pass/No Pass).
- Students may be able to take their International Business Course Requirement (IBCR) as part of their major.
- Although a 2.5 GPA may not be required to take these courses, a 2.5 is required to apply for graduation; thus, students are expected to maintain this level throughout their collegiate career.
- Sequencing of classes is critical, particularly for agribusiness, actuarial science, and international business majors; plan the major courses well in advance of enrollment.
- By this point in time, the curriculum was designed for ACE (except ACE 10) to have been completed through other coursework. If missing an ACE 4 or 9, there may be options through the major to fulfill both requirements.
- A maximum of 3 hours of coursework may transfer if the 15-hour limitation has not been exceeded. Further restrictions may apply.

Business Core Advanced-Capstone (BCA-C) – Two Courses (3 hours)

BCA-C 1 – MNGT 475 Business Policies and Strategies (ACE 10)

- Reserved for graduating seniors, this course requires the Business Core Foundation (BCF) and Intermediate (BCI) coursework to be completed for enrollment. BLAW 371 or BLAW 372 may be completed concurrently. Actuarial students may take FINA 461 concurrently with MNGT 475.
- A capstone course integrating business concepts covered throughout the program.
- Course MUST be taken at the University of Nebraska–Lincoln and taken for a grade (no Pass/No Pass).

BCA-C 2 – BSAD 98 Senior Assessment

- A 0-credit-hour seminar required of ALL business graduating seniors.
- Taught via Canvas—all components must be completed to a satisfactory level to graduate.

Electives – Hours vary to meet 120 hour minimum to graduate

Electives round out the rest of the 120 hour curriculum. Students have the option to choose courses toward a second major, a dual degree, a minor (or two); or students can simply select courses of personal interest.

- Some hours may need to be additional business coursework (to meet the requirement that 60 hours of coursework be in business). This requirement will vary by major.
- There may be a need to enroll in an international business course requirement (IBCR) if not taken as part of the major or for the business elective(s) requirement.
- A minimum of 12 hours of 300/400 upper-level coursework beyond the business core is required for most majors to ensure depth is achieved through enrollment in elective hours. See 300/400-level Elective Requirement below for additional information.

- If not completed through the other area requirements, any remaining ACE requirements will need to be completed as required electives.
- In a 21-hour major, students will average 30 hours of elective credit; second major options and/or minors may be appropriate to consider for elective hours.

Other Requirements

International Business Course Requirement (IBCR)

- The international business course requirement (IBCR) broadens the student's international perspective.
- Each student, excluding accounting majors, must include one course which emphasizes an international business perspective.
- Actuarial science majors are encouraged to take FINA 450 if they have not met this requirement with completion of NBR 6 – ACE 9 with ECON 321 or MNGT 414.
- The IBCR must be taken for a grade.

The course must be chosen from the following approved list of International Business Course Requirement (IBCR) courses. Many of these courses have prerequisites. Some are restricted for education abroad and others may only be offered once a year. Thus, students are advised to plan ahead in scheduling this requirement into their programs.

IBCR Courses

BSAD 491 International Studies in Business and Economics (1-15 hrs)

- Available only to students studying abroad for which there is no University of Nebraska–Lincoln equivalent course.
- Available also for the Senshu, Japan, CIMBA Italy, and for the China Education Abroad Programs.
- Senshu program students may apply 3 hours towards electives in the FINA, MNGT, or MRKT major; 6 hours are applicable for BSAD or IBUS major/minor.
- BSAD 491 credit from any other study abroad program should be based on course topics directly associated with a specific major in MNGT, MRKT, or FINA and may need department consent to be used in the major. Students should visit with an academic advisor for assistance.

BSAD 320 Global Issues

BSAD 420 Global Leadership and the Culture Map

ECON 321 (*If not completed at this point, ECON 321 may double count for ACE 9.*)

ECON 421 International Trade (*Credit cannot be earned in both ECON 421 and AECN 420.*)

ECON 422 International Finance

ECON 423 Economics of the Less Developed Countries

ECON 466 Pro-seminar in International Relations I & ECON 467 Pro-seminar in International Relations II (*Credit option for students participating in the Nebraska at Oxford Program.*)

ECON 440 Regional Development

FINA 450 International Financial Management

MNGT 414 (If not completed at this point, MNGT 414 may double count for ACE 9.)

SCMA 459 Global Information Systems

MRKT 453 International Marketing

SCMA 439 Global Sourcing and Distribution

Although the following courses may also be used to fulfill requirements in the international business major/minor/IBCR, students should be aware that they are not necessarily offered on a consistent basis.

ECON 322 Introduction to Development Economics (*Credit cannot be earned in both ECON 322 and AECN 367 Agricultural Development in Developing Countries.*)

ECON 323 The Economic Development of Latin America

ECON 388 Comparative Economic Systems

ECON 487 Economies in Transition

If planned carefully, the IBCR course may count in two places. It is not an extra 3 hours of credit, but rather, is 3 hours embedded within other requirements. If selected carefully, it can also count for 3 hours of credit in the major (i.e., MRKT 453 International Marketing counts for a MRKT elective in the MRKT major and also counts for the IBCR; FINA 450 International Financial Management counts for a FINA elective in the FINA major and also fulfills the IBCR). On the other hand, if coursework for the major is already determined by personal choices or requirements, the IBCR may count in electives, and more specifically, for one of the 'business' electives needed for most majors. If not planned carefully this requirement may mean that the student will need to take an additional 3 hours of credit.

300/400 Upper-level Requirement

As part of the degree requirements, all students must complete a certain number of 300/400-level courses. Most of these courses will be completed in the Business Core but some majors will require additional hours from outside of the Business Core. With a "standard" 21-hour major, 12 additional hours will be required. Normally, if a major is larger than 21 hours, the number of additional upper-level courses is reduced. This requirement can be met by business or non-business coursework.

Business coursework from the Business Core Intermediate (BCI), Business Core Advanced-Major (FIRST Major) or Business Core Advanced-Capstone may NOT be used to fulfill this requirement with exceptions noted below:

- If more than 21 hours of coursework for the major are taken at the 300/400 level, and of those hours, coursework is not being double counted toward the NBR and major, then the additional 300/400-level hours can be used to fulfill the 300/400-level requirement. Students will need to consult their Degree Audit to determine how the requirements are applied.
- Business administration majors will complete a 24-hour major and only need to complete 9 upper-level hours.
- Finance majors will take between 24 and 27 hours for their major; consult the major section in this document or the Degree Audit to determine how many hours will double count for this requirement. This will depend on which option is selected for the major.

- Actuarial science majors, agribusiness majors, and Raikes students do not need to meet this requirement due to the additional hours at the 300/400 level required for the major/program.
- Business Core Advanced-Major coursework used for a SECOND major (if selected), or upper-level graded coursework selected for a minor, MAY count.
- Coursework that is part of the Non-business Requirement (NBR) taken at the 300/400 level may be double counted to fulfill this requirement, if it is not being used to double count for the first major.
- No course may be taken on a Pass/No Pass basis unless it is a business course numbered 398/399. Only 3 hours of 398/399 credit is allowed for this requirement.
- Students generally fulfill this requirement through their electives, but there may be a few upper-class students who may fulfill the requirement with the ACE course requirements.

Business Course/Business Elective Hours

At a minimum, 60 hours of business courses are required for the BSBA degree.

The required hours WILL VARY BY MAJOR, dependent on how requirements have been accepted and/or completed throughout the previous components of the program. While **GENERAL MINIMUM** guidelines by major are noted below, the Degree Audit will specify *minimum business* credit hour expectations for each student. Students will generally see this addressed under the ELECTIVE section (BUSINESS ELECTIVES) on the Degree Audit.

- Accounting, economics, management, and marketing majors – 3 hours of business electives.
- Business administration majors – no additional business coursework, as the major consists of 24 hours of business coursework.
- Actuarial science majors – no additional business coursework, as the major consists of 28 hours of business coursework.
- Finance majors – no additional business coursework, as the major consists of 24-27 hours of business coursework.
- Agribusiness and Raikes majors – no additional business coursework required due to intent of major as being 'business-related' coursework.
- Additional hours may be required if there is a variation in hours for NBR, BCF, BCI or BCA, or if there is a violation of transfer limits, the 15 hour rule, etc.

Coursework must be taken for a grade except for 398/399 options, where grades are generally not permitted.

Foreign Languages/Language Requirement

Other than meeting the minimum requirement for admission to the University, the College does not require any additional work in foreign languages, except for IBUS majors. IBUS majors must complete the equivalent of 8 hours of a foreign language while in college. However, students are always encouraged to take language courses.

Minimum Hours Required for Graduation

A minimum of 120 semester hours of credit is required for graduation; more may be necessary if specific degree requirements have not yet been completed.

Grade Rules

C- and D Grades

While students may earn grades of C- or D, there are restrictions and recommendations for such grades and further enrollment options:

- A grade of C or higher is expected in prerequisite courses to enroll in ACCT courses.
- A grade of C or higher is required in FINA 361 Finance in order to take most upper-level FINA courses.
- A grade of C or higher is required in other departmental higher-level sequencing courses (i.e., MATH 101 to take MATH 104, etc.). See course descriptions to determine enrollment restrictions.
- Minimum 2.5 cumulative GPA is required to enroll in many business courses, including: ACCT 201, ACCT 202, BLAW 371, BLAW 372, ECON 215, FINA 361, MNGT 301, MNGT 475, MRKT 341, MRKT 350, SCMA 331, SCMA 350.
- Grades of C- or lower may be removed by retaking the course at UNL or within the University system (UNK, UNO).
- Grades of C or better are required to transfer courses from outside of the University of Nebraska system.
- Academic bankruptcy options may be considered for students who have one or two semesters of poor performance.

Pass/No Pass

The Pass/No Pass option is designed for students who want to study areas or topics in which they may have minimum preparation. If used for this purpose, the option can enrich the student's academic experience without lowering the student's grade point average. Several restrictions apply when considering the Pass/No Pass option:

- BSAD 111, BSAD 222, BSAD 333, BSAD 444, and BSAD 50 are offered only as Pass/No Pass. All are required.
- Students may apply no more than 6 hours of elective credit using the Pass/No Pass option (excludes BSAD 111, BSAD 222, BSAD 333, BSAD 444).
- **No** student enrolled in **any** college at the University of Nebraska–Lincoln may take business courses in the College of Business using the Pass/No Pass option.
- College of Business students may **NOT** take coursework to satisfy ACE requirements, the International Business Course Requirement (IBCR), nor any required business coursework, including in the major and minor, using the Pass/No Pass option.
- Students majoring in actuarial science through the College of Business may **NOT** take any math, actuarial science, or required courses using the Pass/No Pass option.
- Students taking courses to fulfill the requirements of a minor in an area of study outside the College of Business are subject to College rules restricting use of the Pass/No Pass option if courses in the minor are used to meet ACE or any college-specific requirements.
- Students seeking any minor outside the College should verify rules applying to minimum grade expectations and Pass/No Pass options with the advisor for their minor, as additional restrictions may apply and often vary.
- Students from UNO/UNK/UNMC and from other institutions are subject to the same restrictions listed here for University of Nebraska–Lincoln students.

Exceptions to the above rules are limited to the following and no other exceptions will be made.

- An independent study course (398, 399) may be taken in the College of Business using the Pass/No Pass option with the permission of the instructor and the department chair, but College of Business students who qualify for this exception may use the independent study course (398, 399) **only** as elective credit.
- Advanced Placement grades of P and Credit By Exam grades of P will be accepted to fulfill degree requirements. These hours will not count against the 6-hour-maximum hours permitted.
- Students who travel abroad and return with “credit” rather than grades from the institution where they studied may use P grades to fulfill degree requirements. These hours will not count against the 6-hour-maximum number of hours permitted.

GPA Requirements

A 2.5 cumulative grade point average is required to apply for graduation, as well as a requirement for enrollment in ACCT 201 and ACCT 202, ECON 215, BLAW 371 and BLAW 372, FINA 361, SCMA 331, MNGT 301, MNGT 475, SCMA 350 or MRKT 350, and MRKT 341. Some upper-level courses in some majors will also require a 2.5 cumulative GPA. In some instances, a specific grade is required in certain courses to continue with upper-level coursework.

Transfer Credit Rules

For detailed information on transfer credit rules, see Transfer Credit Restrictions under Course Exclusions and Restrictions.

Residency

At least 30 of the last 36 hours of credit must be registered for and completed in residence at the University of Nebraska–Lincoln.

Students electing to study abroad in their final semester are exempted for the hours earned abroad, but no additional hours may be transferred in the last 36 hours. This exemption requires filing a written appeal in the Business Advising and Student Engagement office (Hawks Hall 125).

ACE Requirements

All students must fulfill the Achievement-Centered Education (ACE) requirements. Information about the ACE program may be viewed at the Achievement-Centered Education website (<https://ace.unl.edu>). Students may also use the catalog's course search function to search for ACE groups. Example: Enter ACE 1 in the search to generate a list of all possible ACE 1 courses. MyRED may also be used to search for currently offered ACE classes.

ACE Achievement-Centered Education—Ten Courses (normally 30 hours)

This is the university's innovative, outcomes-focused general education component designed to enhance the undergraduate experience by providing broad exposure to multiple disciplines, complementing the major, and helping students develop important reasoning, inquiry, and civic capacities.

Important rules to remember when selecting coursework to meet this requirement:

- There are 10 ACE Student Learning Outcomes (SLOs). At least one course, equivalent to 3 credit hours, must be taken for each of the 10 SLOs.

- Up to three ACE SLOs from ACE 4–10 may be satisfied by work in one subject area.
- ACE SLOs must be satisfied by work in at least three subject areas.
- No ACE course may satisfy more than one ACE SLO in a student's program.
- If an ACE course addresses two ACE SLOs, the student decides which one of the two outcomes the course will satisfy in that student's program. (The Degree Audit will make an automatic decision based on first course taken, first SLO needed.)
- As part of the College requirements of non-business and business courses, many courses will also work for ACE. Students should carefully review required coursework with ACE options to make the best use of courses to fulfill both degree requirements as well as University of Nebraska–Lincoln ACE requirements.

Catalog Rule

Students (including transfer students) must follow the Undergraduate Catalog in effect when they are admitted into the College of Business. Students who leave the College and return, or those applying for 'readmission' to the College, are subject to requirements in place at the time of their readmission to the College.

Learning Outcomes

Graduates of actuarial science will be able to:

1. Demonstrate the ability to apply the concepts of actuarial science in solving problems related to financial security.
2. Understand the content of the UNL courses that have been approved for the actuarial profession's Validation by Educational Experience (VEE) program for the topics of economics, corporate finance and applied statistics.
3. 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.
4. Understand that being a professional requires that actuarial tasks be completed with the highest regard for personal and professional ethics.
5. Demonstrate the ability to transition from actuarial theory to actuarial practice, and the ability to apply tools that actuaries use in practice to complete actuarial tasks, such as a modern procedural computer programming language, Excel or similar spreadsheet program, and commercially available actuarial software.
6. Demonstrate the ability to communicate the results of quantitative analysis effectively, both in writing and orally.
7. Demonstrate the ability to work cooperatively with others.
8. Understand what is involved in being a member of the actuarial profession, including the types of employment available in an actuarial career and the requirements to become, and remain, a member of the actuarial profession.
9. Demonstrate the ability to be productive in one or more actuarial roles including:
 - Current or developing areas of actuarial practice
 - Research designed to deepen or broaden actuarial knowledge
 - Education of aspiring or practicing actuaries

Major Requirements

Core Requirements

In addition to the College Degree Requirements, students will complete 28 hours of coursework for the major.

As noted in the College Degree Requirements section, all coursework for the major must be taken for a grade.

Actuarial science majors must take MATH 106 Calculus I, MATH 107 Calculus II, and MATH 208 Calculus III, as well as either CSCE 101 Fundamentals of Computer Science and CSCE 101L Fundamentals of Computing Laboratory, or any of the CSCE 155 Computer Science I courses. These hours have been built into the College Degree Requirements as part of the Non-Business Requirements (NBR).

ACTS 399 Independent Study may not count toward the major or minor in actuarial science.

Other College Degree Requirement changes for actuarial science majors include:

- ACTS majors must take STAT 380 Statistics and Applications in place of ECON 215 Statistics for the Business Core Foundation (BCF) requirements.
- ACTS majors will also take STAT 462 Introduction to Mathematical Statistics I: Distribution Theory and STAT 463 Introduction to Mathematical Statistics II: Statistical Inference for the Business Core Foundation (BCF) requirements.
- ACTS majors will take FINA 461 Advanced Finance in place of FINA 361 Finance for the Business Core Intermediate (BCI) requirements; the prerequisite of FINA 361 (for FINA 363 Investment Principles and FINA 461) is satisfied with completion of ACTS 440 Interest Theory.
- Twelve (12) hours of 300/400-level elective coursework is NOT required for actuarial science majors.

As part of the college **elective** requirements, all students complete ONE business elective course for the program. ACTS majors are WAIVED from this specific requirement; however, all ACTS majors must take an IBCR course, and this can therefore be done to meet the business elective requirement. The department suggests ECON 321 Introduction to International Economics or MNGT 414 International Business as part of NBR 6–ACE 9, which then double counts for both the NBR 6 and IBCR requirement. An alternative option is to take FINA 450 International Financial Management to meet the IBCR (FINA 450 can double count towards a finance major or finance minor).

Specific Major Requirements

Business Core Advanced–Major (BCA-M)

Requirements for students interested in pursuing the bachelor of science degree with a major in actuarial science will complete 28 hours of actuarial science coursework for the Business Core Advanced–Major (BCA-M):

Requirements

ACTS 440	Interest Theory	4
ACTS 470	Life Contingencies I	3
ACTS 475	Actuarial Applications in Practice	3
FINA 338	Principles of Individual and Corporate Risk Management	3

FINA 363	Investment Principles	3
or FINA 367	Fixed Income Investments	
Select four of the following:		12
ACTS 410	Introduction to Credibility, Smoothing of Data, and Simulation	
ACTS 425	Survival Models	
ACTS 430	Actuarial Applications of Applied Statistics	
ACTS 441	Introduction to Financial Economics	
ACTS 450	Stochastic Processes for Actuaries	
ACTS 471	Life Contingencies II	
ACTS 473	Introduction to Risk Theory	
ACTS 474	Introduction to Property/Casualty Actuarial Science	
FINA 438	Enterprise Risk Management	
FINA 467A	Options, Futures and Derivative Securities for Actuarial Science	
SCMA 451	Introduction to Predictive Analytics	
Credit Hours Subtotal:		28
Total Credit Hours		28

ACTS majors are also required to complete ACTS 95, a zero-credit hour course required for graduation. This requirement can be completed in one of the following ways:

- Complete an internship in actuarial science or closely related field (this is the preferred option)
- Complete the Toastmasters Competent Communicator certificate
- Other options that promote professional development can be completed with prior approval through a student's actuarial science advisor

In addition to the 28 hours for the major, ACTS majors are also encouraged to take:

Actuarial science problem labs as appropriate

MATH 314	Linear Algebra	3
MATH 221	Differential Equations	3
Select at least one of the following:		3
FINA 412	Life and Health Insurance	
FINA 420	Employee Benefit Plans	
ECON 413	Social Insurance	
Total Credit Hours		9

Tracks/Options/Concentrations/Emphases Requirements

While not required, actuarial science majors may double major in finance. The finance department allows double counting of courses for students choosing to obtain a double major in actuarial science and finance.

Actuarial Science and Finance Double Majors

1. Take the Core Finance Requirements.

FINA 363	Investment Principles	3
FINA 365 / ECON 365	Financial Institutions	3
FINA 367	Fixed Income Investments	3

FINA 461	Advanced Finance	3
FINA 475	Strategic Financial Management	3
Total Credit Hours		15

2. Select ONLY ONE of the three options available:

- Banking and Risk Management
- CFA Investment
- General Finance

Finance Minor

Actuarial students may double count their finance courses towards a finance minor. They will follow the regular minor found in the finance section of the Catalog. The courses used might include:

Select two of the following:		6
FINA 363	Investment Principles	
FINA 365 / ECON 365	Financial Institutions	
FINA 367	Fixed Income Investments	
Select one 300/400-level course from the following:		3
FINA 338	Principles of Individual and Corporate Risk Management	
FINA 412	Life and Health Insurance	
FINA 438	Enterprise Risk Management	
FINA 465	Bank Management	
FINA 467	Options, Futures and Derivative Securities (if not taken above)	
or FINA 363	Investment Principles	
or FINA 365	Financial Institutions	
or FINA 367	Fixed Income Investments	
Select one 400-level course:		3
FINA 461	Advanced Finance	
Total Credit Hours		12

Additional Major Requirements

Grade Rules

C- and D Grades

Same as College grade rules.

Pass/No Pass

Same as College Pass/No Pass rules, all coursework for the major must be taken for a grade (no Pass/No Pass).

GPA Requirements

Same as College GPA requirements.

Requirements for Minor Offered by Department

Actuarial Science Minor

To fulfill the requirements for an actuarial science minor, students must complete 12 graded hours of actuarial science coursework; suggested courses are:

ACTS 440	Interest Theory	4
ACTS 441	Introduction to Financial Economics	3
ACTS 470	Life Contingencies I	3

ACTS 474	Introduction to Property/Casualty Actuarial Science	3
Total Credit Hours		13

NOTE: ACTS 399 Independent Study may not be used toward the minor (or major).

NOTE: The college requires that 75% of the minor be earned on campus.

Grade Rules

C- and D Grades

Same as College grade rules.

Pass/No Pass

Same as College Pass/No Pass rules, all coursework for the minor must be taken for a grade (no Pass/No Pass).

GPA Requirements

Same as College GPA requirements.

ACTS 399 Independent Study

Prerequisites: Permission.

Credit Hours: 1-3

Min credits per semester: 1

Max credits per semester: 3

Max credits per degree: 24

Grading Option: Graded with Option

ACTS 401 Problem Lab: Basic Actuarial Applications of Probability

Prerequisites: MATH 208 or 208H and STAT 462, or parallel, and both with a grade of "Pass" or "C" or better.

Description: Calculus-based probability, both univariate and multivariate, applications to risk management-related problems. Problems as posed in the Society of Actuaries (SOA) Exam "P" and/or Casualty Actuarial Society (CAS) Exam "1". Determination of loss frequency distributions and their characteristics, expected value, variance, and percentiles. Determination of loss severity distributions and their characteristics, expected value, variance, and percentiles. Determination of loss sharing parameters, deductibles, and maximum payments.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

ACTS 402 Problem Lab: Basic Actuarial Applications of Financial Mathematics

Prerequisites: ACTS 440/840 or parallel

Description: Application of basic mathematics of finance to problems involving valuation of financial transactions. Problems as posed in the "Society of Actuaries (SOA) Exam 'FM'" and/or "Casualty Actuarial Society (CAS) Exam '2'". Determining equivalent measures of interest; estimating the rate of return on a fund; discounting or accumulating a sequence of payments with interest; determining yield rate; length of investment; amounts of investment contributions or amounts of investment returns for various types of financial transactions; and basic calculations involving yield curves, spot rates, forward rates, duration, convexity, immunization and short sales; introduction to financial derivatives (forwards, options, futures, and swaps) and their use in risk management; and introduction to the concept of no-arbitrage as a fundamental concept in financial mathematics.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

ACTS 403 Problem Lab: Actuarial Models - Life Contingencies

Prerequisites: ACTS 470/870, ACTS 471/871, and ACTS 473/873

Description: Problems as posed in the "Society of Actuaries (SOA) Exam 'M'" and/or "Casualty Actuarial Society (CAS) Exam '3'". Survival and severity models; "Markov Chain" models; life contingencies; and "Poisson" processes.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

ACTS 404 Problem Lab: Construction and Evaluation of Actuarial Models

Prerequisites: ACTS 410 and 425

Description: Problems as posed in the Society of Actuaries (SOA) Exam "C" and/or Casualty Actuarial Society (CAS) Exam "4". Construction of empirical models; construction and selection of parametric models; credibility theory; interpolation and smoothing of data; and simulation.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

ACTS 405 Problem Lab: Actuarial Models - Financial Economics

Prerequisites: ACTS 440/840 and FINA 467

Description: Problems as posed in the "Society of Actuaries (SOA) Exam 'M'". Interest rate models; rational valuation of derivative securities (option pricing: put-call parity, the binomial model, Black-Scholes formula, and actuarial applications; interpretation of option Greeks and delta-hedging; features of exotic options; an introduction to Brownian motion and Itô's lemma); and risk management techniques.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

ACTS 410 Introduction to Credibility, Smoothing of Data, and Simulation**Crosslisted with:** ACTS 810**Prerequisites:** STAT 463

Description: Full, partial, Buhlmann, and Buhlmann-Straub credibility models. Introduction to empirical Bayes and statistical distributions used to model loss experience. Application of "polynomial splines" to actuarial data. Simulation of "discrete" and "continuous random" variables in context of actuarial models. Simulation to "p-value" of hypothesis test. "Bootstrap method" of estimating the "mean squared error" of an estimator.

Credit Hours: 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**Prerequisite for:** ACTS 404**ACTS 425 Survival Models****Crosslisted with:** ACTS 825**Prerequisites:** STAT 463 with a grade of "C" or better

Description: Parametric and tabular survival models. Estimation based on observations that might not be complete. Concomitant variables. Use of population data. Applications to groups with impaired lives.

Credit Hours: 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**Prerequisite for:** ACTS 404**ACTS 430 Actuarial Applications of Applied Statistics****Crosslisted with:** ACTS 830**Prerequisites:** STAT 463 with a grade of "C" or better

Notes: Data sets processed and analyzed using statistical software.

Description: Introduction to forecasting in actuarial science. Simple and multiple regression, instrumental variables, time series methods, and applications of methods in forecasting actuarial variables. Interest rates, inflation rates, and claim frequencies.

Credit Hours: 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**ACTS 440 Interest Theory****Crosslisted with:** ACTS 840**Prerequisites:** MATH 208 or 208H with a grade of "Pass" or "C" or better, or parallel**Notes:** Grade only

Description: Application of financial mathematics to problems involving valuation of financial transactions; equivalent measures of interest; rate of return on a fund; discounting or accumulating a sequence of payments with interest; and yield rates, length of investment, amounts of investment contributions or amounts of investment returns for various types of financial transactions; loans and bonds. Introduction to the mathematics of modern financial analysis. Calculations involving yield curves, spot rates, forward rates, duration, convexity, and immunization.

Credit Hours: 4**Max credits per semester:** 4**Max credits per degree:** 4**Grading Option:** Graded**Prerequisite for:** ACTS 405; ECON 365; FINA 365; FINA 338; FINA 363; FINA 367; FINA 375; FINA 382; FINA 401; FINA 450**ACTS 441 Introduction to Financial Economics****Crosslisted with:** ACTS 841**Prerequisites:** MATH 208 with grade of "C" or better or concurrent; ACTS 440

Description: Financial mathematics concepts related to short sales, forwards, options, futures, and swaps, and their use in risk management, hedging and investment strategies, fundamental concepts of put-call parity and no-arbitrage, and interest rate models.

Credit Hours: 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**ACTS 442 Principles of Pension Valuation****Crosslisted with:** ACTS 842**Prerequisites:** ACTS 471/871 with a grade of "C" or better

Description: Actuarial cost methods. Determination of normal costs and accrued liability. Effect on valuation results due to changes in experience, assumptions and plan provisions. Valuation of ancillary benefits. Determination of actuarially equivalent benefits at early or postponed retirement and optional forms of payment.

Credit Hours: 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**ACTS 450 Stochastic Processes for Actuaries****Crosslisted with:** ACTS 850**Prerequisites:** STAT 463 with a grade of "C" or better

Description: Introduction to stochastic processes and their applications in actuarial science. Discrete-time and continuous-time processes; Markov chains; the Poisson process; compound Poisson processes; non-homogeneous Poisson processes; arithmetic and geometric Brownian motions. Applications of these processes in computation of resident fees for continuing care retirement communities. Pricing of financial instruments.

Credit Hours: 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**ACTS 470 Life Contingencies I****Crosslisted with:** ACTS 870**Prerequisites:** ACTS 440 and STAT 462, each with a grade of "C" or better**Notes:** First course of a two-course sequence that includes ACTS 471.

Description: Theory and applications of contingency mathematics in the areas of life and health insurance, annuities, and pensions. Probabilistic models.

Credit Hours: 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**Prerequisite for:** ACTS 403

ACTS 471 Life Contingencies II**Crosslisted with:** ACTS 871**Prerequisites:** ACTS 470 and STAT 462, each with a grade of "C" or better**Notes:** Second course of a two-course sequence that includes ACTS 470.**Description:** Life insurance reserve for models based on a single life.

Introduction to multiple life models for pensions and life insurance and to multiple decrement models.

Credit Hours: 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**Prerequisite for:** ACTS 403; ACTS 442, ACTS 842**ACTS 473 Introduction to Risk Theory****Crosslisted with:** ACTS 873**Prerequisites:** STAT 462 with a grade of "C" or better**Description:** Applications of compound distributions in modeling of insurance loss. Continuous-time compound Poisson surplus processes, computation of ruin probabilities, the distributions of the deficit at the time of ruin, and the maximal aggregate loss. The effect of reinsurance on the probability of ruin.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**Prerequisite for:** ACTS 403**ACTS 474 Introduction to Property/Casualty Actuarial Science****Crosslisted with:** ACTS 874**Prerequisites:** STAT 462 with a grade of "C" or better.**Description:** Mathematical, financial, and risk-theoretical foundations of casualty actuarial science. Risk theory, loss reserving, ratemaking, risk classification, credibility theory, reinsurance, financial pricing of insurance, and other special issues and applications.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**ACTS 475 Actuarial Applications in Practice****Crosslisted with:** ACTS 875**Prerequisites:** ACTS 471/871; FINA 307/307H or FINA 338**Description:** Principles and practices of pricing and/or funding and valuation for life, health, property and liability insurance, and annuities and pension plans. Commercially available actuarial modeling software.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**ACE:** ACE 10 Integrated Product**PLEASE NOTE**

This document represents a sample 4-year plan for degree completion with this major. Actual course selection and sequence may vary and should be discussed individually with your college or department academic advisor. Advisors also can help you plan other experiences to enrich your undergraduate education such as internships, education abroad, undergraduate research, learning communities, and service learning and community-based learning.

Career Information

The following represents a sample of the internships, jobs and graduate school programs that current students and recent graduates have reported.

Transferable Skills

- Analytical Skills
- Problem-Solving/Critical Thinking Skills
- Quantitative Skills
- Computer Skills
- Oral and Written Communication Skills
- Organizational Skills
- Detail-Oriented
- Ability to Work Independently
- Teamwork

Jobs of Recent Graduates

- Actuarial Analyst, Milliman - Omaha NE
- Actuarial Analyst, Aetna - Omaha NE
- Property and Casualty Actuarial Analyst, Allstate Insurance - Chicago IL
- Senior Actuarial Analyst, Cigna - Denver CO
- Sales and Trading Analyst, Citigroup - New York City NY
- Human Capital Analyst, Deloitte - Minneapolis MN
- Associate Actuarial Analyst, UnitedHealth Care - Minnetonka MN
- Actuarial Analyst, Wakely Consulting Group - Denver CO
- Operational Risk Associate, Wells Fargo - Des Moines IA
- Actuarial Analyst, Retirement Consulting, Aon Hewitt - Lincolnshire IL

Internships

- Actuarial Intern, Allstate Insurance - Northbrook IL
- Actuarial Intern, Ameritas - Lincoln NE
- Actuarial Intern, CSG Actuarial - Omaha NE
- Actuarial Intern, Hannover - Denver CO
- Actuarial Intern, Lincoln Financial Group - Omaha NE
- Actuary Intern, Markel - Omaha NE
- Actuarial Intern, Mutual of Omaha - Omaha NE
- Compliance Intern, State Farm Insurance - Bloomington IL
- Property and Casualty Actuarial Intern, The Hartford Insurance Company - Hartford CT
- Actuarial Intern, Willis Towers Watson - St. Louis MO