

Actuarial Science, BS

Requirements

The Bachelor of Science with a major in actuarial science requires a minimum of 120 s.h., including 52 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core.

In planning coursework, students should be guided by the College of Liberal Arts and Sciences maximum hours rule: students earning a BS may apply a maximum of 56 s.h. earned in one department to the minimum 120 s.h. required for graduation, whether or not the coursework is accepted toward requirements for the major; students who earn more than 56 s.h. from one department may use the additional semester hours to satisfy requirements for the major (if the department accepts them), and the grades they earn become part of their grade-point average, but they cannot apply the additional semester hours to the minimum 120 s.h. required for graduation.

The program prepares students for careers as actuaries. It also helps them learn material that is included in professional examinations administered by professional organizations such as the Society of Actuaries and the Casualty Actuarial Society.

Students take a variety of actuarial science courses. They prepare for business aspects of the actuarial profession by studying accounting, law, finance, insurance, and economics. They also complete courses that enhance important communication skills, such as writing and speaking, as part of their GE CLAS Core requirements.

Courses Required for the Major

The BS with a major in actuarial science requires the following coursework. Permission to substitute coursework taken at another institution for required courses at the University of Iowa is decided case by case; students should contact the department.

Course #	Title	Hours
Computer Science		
This course:		
CS:1210	Computer Science I: Fundamentals	4
Mathematics		
All of these:		
MATH:1850	Calculus I	4
MATH:1860	Calculus II	4
MATH:2700	Introduction to Linear Algebra	4
MATH:2850	Calculus III	4
MATH:3770	Foundations of Analysis	4
Statistics and Actuarial Science		
All of these:		
ACTS:3080	Mathematics of Finance I	3
ACTS:4130	Quantitative Methods for Actuaries	3
ACTS:4150	Fundamentals of Short-Term Actuarial Mathematics	3
ACTS:4180	Life Contingencies I	3

ACTS:4280	Life Contingencies II	3
STAT:3100/ IGPI:3100	Introduction to Mathematical Statistics I	4
STAT:3101/ IGPI:3101	Introduction to Mathematical Statistics II	3
STAT:4100/ IGPI:4100	Statistical Inference I	3
STAT:4101/ IGPI:4101	Statistical Inference II	3

In exceptional cases, the advisor may grant permission to waive STAT:3100 Introduction to Mathematical Statistics I and/or STAT:3101 Introduction to Mathematical Statistics II.

Students may choose to complete STAT:4560 Statistics for Risk Modeling I and STAT:4561 Statistics for Risk Modeling II (both courses) instead of ACTS:4280 Life Contingencies II, except honors students, who must complete all three courses.