

Actuarial Science, B.S.

Academic Plans

Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the University's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

Much of the coursework is sequential, so students must begin requirements for the major as soon as possible. Individual study plans must be made carefully. Students who first enroll for a spring semester must consult their advisor to confirm a four-year plan.

Before the third semester begins: MATH:1860 Calculus II and MATH:2700 Introduction to Linear Algebra.

Before the fifth semester begins: MATH:2850 Calculus III, MATH:3770 Fundamental Properties of Spaces and Functions I, STAT:3100/IGPI:3100 Introduction to Mathematical Statistics I, STAT:3101/IGPI:3101 Introduction to Mathematical Statistics II, and ACTS:3080 Mathematics of Finance I.

Before the seventh semester begins:

STAT:4101/IGPI:4101 Mathematical Statistics II, ACTS:4130 Quantitative Methods for Actuaries, ACTS:4150 Fundamentals of Short-Term Actuarial Mathematics, ACTS:4180 Life Contingencies I, and at least 90 s.h. earned toward the degree.

Before the eighth semester begins: ACTS:4280 Life Contingencies II.

During the eighth semester: enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Actuarial Science, B.S.

Course	Title	Hours
Academic Career		
Any Semester		
Students apply to the Actuarial Science BS program through a selective process. Acceptance is not guaranteed. ^a		
GE CLAS Core: Sustainability ^b		
Hours		0
First Year		
Fall		
CS:1210	Computer Science I: Fundamentals ^c	4
MATH:1850	Calculus I ^d	4

RHET:1030 or ENGL:1200	Rhetoric or The Interpretation of Literature	3 - 4
GE CLAS Core: World Languages First Level Proficiency or elective course ^e		4 - 5
CSI:1600	Success at Iowa	1
Attend the Actuarial Science, Insurance and Risk Management Job Fair during the fall semester to apply for summer internships.		

Hours 16-18

Spring

MATH:1860	Calculus II	4
MATH:2700	Introduction to Linear Algebra	4
GE CLAS Core: Diversity and Inclusion ^f		3
GE CLAS Core: World Languages Second Level Proficiency or elective course ^e		4 - 5

Hours 15-16

Second Year

Fall

MATH:2850	Calculus III	4
STAT:3100	Introduction to Mathematical Statistics I ^g	3
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric	3 - 4
GE CLAS Core: Natural Sciences without Lab ^f		3
GE CLAS Core: World Languages Second Level Proficiency or elective course ^e		4 - 5

Admission Application: apply to the Actuarial Science BS major^h

Attend the Actuarial Science, Insurance and Risk Management Job Fair during the fall semester to apply for summer internships.

Hours 17-19

Spring

ACTS:3080	Mathematics of Finance I	3
MATH:3770	Fundamental Properties of Spaces and Functions I	4
STAT:3101	Introduction to Mathematical Statistics II ⁱ	3

GE CLAS Core: World Languages Fourth Level Proficiency or elective course^e

Hours 14-15

Third Year

Any Semester

The curriculum shown in the third and fourth years on this plan begins upon acceptance into the Actuarial Science BS program.

Hours 0

Fall

ACTS:4130	Quantitative Methods for Actuaries ^{g, j}	3
STAT:4100	Mathematical Statistics I ^g	3
GE CLAS Core: Natural Sciences with Lab ^f		4
GE CLAS Core: Social Sciences ^f		3
Elective course ^k		3

Attend the Actuarial Science, Insurance and Risk Management Job Fair during the fall semester to apply for summer internships.

Hours 16

Spring

ACTS:4150	Fundamentals of Short-Term Actuarial Mathematics ^{i, j}	3
ACTS:4180	Life Contingencies I ^{i, j}	3
STAT:4101	Mathematical Statistics II ⁱ	3
GE CLAS Core: Historical Perspectives ^f		3
GE CLAS Core: Literary, Visual, and Performing Arts ^f		3

Hours **15**

Fourth Year**Fall**

ACTS:4280	Life Contingencies II ^{g, j, l}	3
STAT:4560	Statistics for Risk Modeling I ^{k, m}	3
GE CLAS Core: International and Global Issues ^f		3
Elective course ^k		3
Elective course ^k		3
Attend the Actuarial Science, Insurance and Risk Management Job Fair during the fall semester.		

Hours **15**

Spring

ACTS:6200	Predictive Analytics ^{k, m}	3
STAT:4561	Statistics for Risk Modeling II ^{k, m}	3
GE CLAS Core: Values and Culture ^f		3
Elective course ^k		3
Elective course ^k		3

Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall)
n

Hours **15**

Total Hours **123-129**

- a The Academic Advising Center advises Actuarial Science Interest students on prerequisite course planning. Students are advised for success, based on academic strength, not necessarily for a four year plan. Prerequisites may take more than one and a half years to complete.
- b Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative and Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Culture.
- c Enrollment in this course requires completion of a placement exam.
- d Enrollment in math courses requires completion of a placement exam.
- e Students who have completed four years of a single language in high school have satisfied the GE CLAS Core World Languages requirement. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course.
- f GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.
- g Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.
- h Ordinarily, students apply for admission to the actuarial science major in the fall semester of their sophomore year, after they have taken MATH:3770 or MATH:2850, and STAT:3100. Students should apply no later than the end of the spring semester of their junior year. For further

details and application instructions, see your advisor and the Department of Statistics and Actuarial Science website.

- i Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.
- j Restricted to Actuarial Science Majors. For further details and application instructions, see your advisor and the Department of Statistics and Actuarial Science website.
- k Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.
- l Students may choose to complete STAT:4560 and STAT:4561 (both courses) instead of ACTS:4280, except honors students, who must complete all three courses.
- m This course is a recommended elective, not a requirement. Students may choose another elective. Prerequisites may apply.
- n Please see Academic Calendar, Office of the Registrar website for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Graduation Services.