

Actuarial Science, BS

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 Foundations of Analysis, STAT:3100 Introduction to Mathematical Statistics I, STAT:3101 Introduction to Mathematical Statistics II, and ACTS:3080 Mathematics of Finance I.

Before the seventh semester begins: STAT:4101 Statistical Inference 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, BS

Course	Title	Hours
Academic Career		
Any Semester		
Students who major in Actuarial Science BS program will have to perform well to make progress towards the degree. Many courses have minimum grade requirements in prerequisite courses. ^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: Writing and Communication or The Interpretation of Literature	3 - 4

ACTS:1001	Introductory Seminar on Actuarial Science ^e	1
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 13-14

Spring

MATH:1860	Calculus II	4
MATH:2700	Introduction to Linear Algebra	4
ACTS:1001	Introductory Seminar on Actuarial Science ^e	1
RHET:1030 or ENGL:1200	Rhetoric: Writing and Communication or The Interpretation of Literature	3 - 4

GE CLAS Core: Understanding Cultural Perspectives ^f	3
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Hours 15-16

Second Year

Fall

ACTS:3110	Actuarial Exam P Preparation ^e	1
MATH:2850	Calculus III	4
STAT:3100	Introduction to Mathematical Statistics I ^g	4

GE CLAS Core: Natural Sciences without Lab ^f	3
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GE CLAS Core: World Languages First Level Proficiency or elective course ^h	4 - 5
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Attend the Actuarial Science, Insurance and Risk Management Job Fair during the fall semester to apply for summer internships.

Hours 16-17

Spring

ACTS:3080	Mathematics of Finance I	3
ACTS:3210	Actuarial Exam FM Preparation ^e	1
MATH:3770	Foundations of Analysis	4
STAT:3101	Introduction to Mathematical Statistics II ⁱ	3

GE CLAS Core: World Languages Second Level Proficiency or elective course ^h	4 - 5
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Hours 15-16

Third Year

Fall

ACTS:4130	Quantitative Methods for Actuaries ^g	3
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STAT:4100	Statistical Inference I ^g	3
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GE CLAS Core: Natural Sciences with Lab ^f	4
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GE CLAS Core: World Languages Third Level Proficiency or elective course ^h	4 - 5
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Elective course ^j	3
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Attend the Actuarial Science, Insurance and Risk Management Job Fair during the fall semester to apply for summer internships.

Hours 17-18

Spring

ACTS:4150	Fundamentals of Short-Term Actuarial Mathematics ⁱ	3
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ACTS:4180	Life Contingencies I ⁱ	3
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STAT:4101	Statistical Inference II ⁱ	3
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GE CLAS Core: Literary, Visual, and Performing Arts ^f	3
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GE CLAS Core: World Languages Fourth Level Proficiency or elective course ^h	4 - 5
Hours	16-17
Fourth Year	
Fall	
ACTS:4280 Life Contingencies II ^{g, k}	3
STAT:4560 Statistics for Risk Modeling I ^{j, l}	3
GE CLAS Core: International and Global Issues ^f	3
GE CLAS Core: Social Sciences ^f	3
Elective course ^j	3
Attend the Actuarial Science, Insurance and Risk Management Job Fair during the fall semester.	
Hours	15
Spring	
ACTS:6200 Predictive Analytics ^{j, l}	3
STAT:4561 Statistics for Risk Modeling II ^{j, l}	3
GE CLAS Core: Values and Society ^f	3
GE CLAS Core: Historical Perspectives ^f	3
Elective course ^j	3
Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) ^m	
Hours	15
Total Hours	122-128

- a The Academic Advising Center advises Actuarial Science 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 or Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Society.
- c Enrollment in this course requires completion of a placement exam.
- d Enrollment in math courses requires completion of a placement exam.
- e This course is not required for the major but it is strongly encouraged to be taken as an elective.
- 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 Students who have completed four levels of a single language or two levels of two different languages in high school or college have satisfied the GE CLAS Core World Languages requirement. Students who have completed three levels of a single language may complete a fourth-level course in the same language or may choose an approved World Language and Cultural Exploration course. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course. Contact your academic advisor or CLAS Undergraduate Programs Office with questions concerning the World Languages requirement.
- i Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

j 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.

k 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.

l This course is a recommended elective, not a requirement. Students may choose another elective. Prerequisites may apply.

m Please see Academic Calendar, on 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 Degree Services.