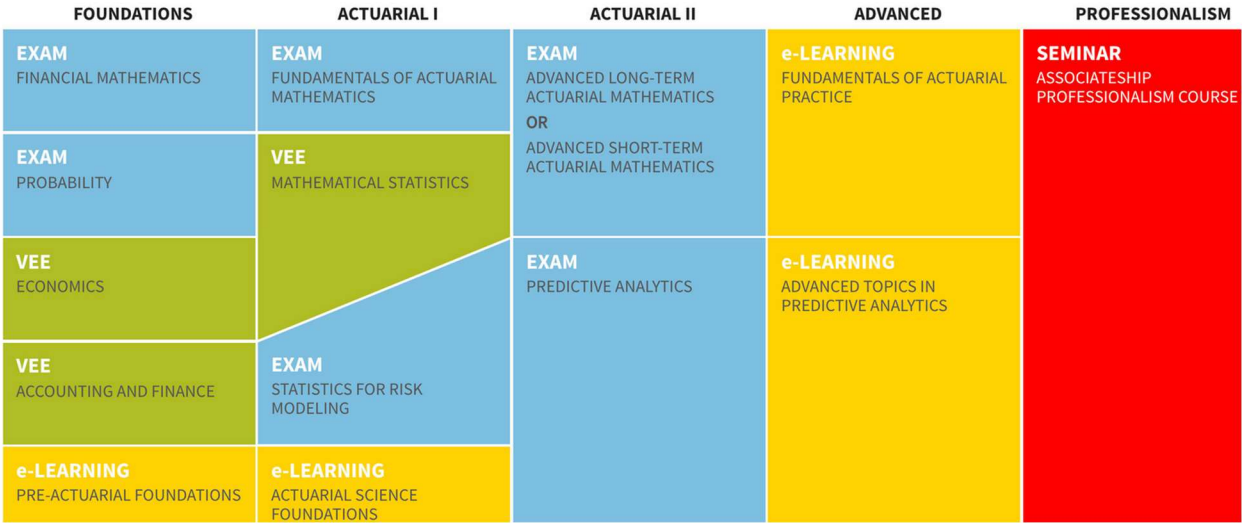
Requirements for the "Associate" Credential of the Society of Actuaries (SOA)



Correspondence between SOA exams and University of Iowa courses

SOA Examinations	UI Courses
Financial Mathematics (FM)	ACTS:3080
Probability (P)	STAT:3100 and/or 4100
Fundamentals of Actuarial Mathematics (FAM)	ACTS:4130, 4150 and 4180; STAT:4101
Advanced **Long**-term Actuarial Mathematics (ALTAM)	ACTS:4180 and 4280; STAT:4101
Statistics for Risk Modeling (SRM)	STAT:4560 and 4561

- ACTS:3080 Mathematics of Finance I (3 s.h.)
- ACTS:4130 Quantitative Methods for Actuaries (3 s.h.)
- ACTS:4150 Fundamentals of Short-term Actuarial Mathematics (3 s.h.)
- ACTS:4180 Life Contingencies I (3 s.h.)
- ACTS:4280 Life Contingencies II (3 s.h.)
- STAT:3100 Introduction to Mathematical Statistics I (4 s.h.)
- STAT:3101 Introduction to Mathematical Statistics II (3 s.h.)
- STAT:4100 Statistical Inference I (3 s.h.)
- STAT:4101 Statistical Inference II (3 s.h.)
- STAT:4560 Statistics for Risk Modeling I (3 s.h.)
- STAT:4561 Statistics for Risk Modeling II (3 s.h.)

The Society of Actuaries has granted the University of Iowa **University-Earned Credit** (UEC) status for four examinations: FM, FAM, SRM, and ALTAM.

"It is evident that the University of Iowa offers an excellent and well-rounded actuarial science education, providing students with both the necessary theoretical knowledge and practical industry experience."

Society of Actuaries **Centers of Actuarial Excellence** Evaluation Committee's letter, January 6, 2025

SOA's Validation by Educational Experience (VEE) Requirements

The following table shows how SOA's **VEE** requirements can be satisfied by UI courses (B– grade or higher), Advanced Placement (AP) Examinations (grade 4 or 5), or College Level Examination Program (CLEP) Tests (grade between 53 and 80).

VEE	UI Courses	AP Exams	CLEP Tests
Economics	ECON:1100, 1200 **or** ECON:3100, 3150	Micro, Macro	Micro, Macro
Accounting & Finance	ACCT:2100, FIN:3300		Financial Accounting
Mathematical Statistics	STAT:3101 **or** 4101 **or** 5101		

February 2026

Below is a **sample plan of study** for the B.S. degree in Actuarial Science for a student who needs to start from Calculus I. General Education Requirement courses (rhetoric, languages, sustainability, culture, etc.) and courses for SOA's VEE (microeconomics, macroeconomics, accounting, and corporate finance) are not shown. The courses in the table below help students prepare for Exams P, FM, FAM, ALTAM, and SRM.

Year	Fall Semester	Spring Semester
1	CS:1210 Computer Science I: Fundamentals MATH:1850 Calculus I	MATH:1860 Calculus II MATH:2700 Introduction to Linear Algebra
2	MATH:2850 Calculus III STAT:3100 Introduction to Mathematical Statistics I	ACTS:3080 Mathematics of Finance I MATH:3770 Foundations of Analysis STAT:3101 Introduction to Mathematical Statistics II
3	ACTS:4130 Quantitative Methods for Actuaries STAT:4100 Statistical Inference I	ACTS:4150 Fundamentals of Short-term Actuarial Math ACTS:4180 Life Contingencies I STAT:4101 Statistical Inference II
4	ACTS:4280 Life Contingencies II STAT:4560 Statistics for Risk Modeling I	STAT:4561 Statistics for Risk Modeling II

Some History

The University of Iowa (UI) has the second oldest actuarial science program in the United States. It began with the course "The Mathematical Theory of Insurance" in academic year 1902/1903. Since 1913, actuarial science courses have been taught every year at UI.

Six presidents of the Society of Actuaries (SOA) and two presidents of the Casualty Actuarial Society (CAS) were UI students. In 2009 the SOA established the **Center of Actuarial Excellence** (CAE) designation; UI was among the first group of universities given this honor. In 2022 the SOA launched the **University-Earned Credit** (UEC) program and granted UI the UEC status for four examinations (FM, FAM, SRM, and ALTAM). Names of over 1,000 credentialed UI alumni can be found in

- https://stat.uiowa.edu/associates-society-actuaries-asa
- https://stat.uiowa.edu/fellows-society-actuaries-fsa
- https://stat.uiowa.edu/associates-casualty-actuarial-society-acas
- https://stat.uiowa.edu/fellows-casualty-actuarial-society-fcas

Second Majors

Most Actuarial Science students would graduate with a second major, usually Mathematics or Statistics, or both. Other second majors that an Actuarial Science student may pursue include Data Science, Finance, and Risk Management & Insurance, which is a new degree offered by the Vaughan Institute of Risk Management & Insurance in the College of Business. Many Actuarial Science students seek a certificate, not a major, in Risk Management & Insurance.

The MATH courses required for the BS degree in Actuarial Science qualify a student for a Minor in Mathematics, provided most of the mathematics courses are taken at UI. Other Minors that an actuarial student may wish to seek include Business Administration and Computer Science.

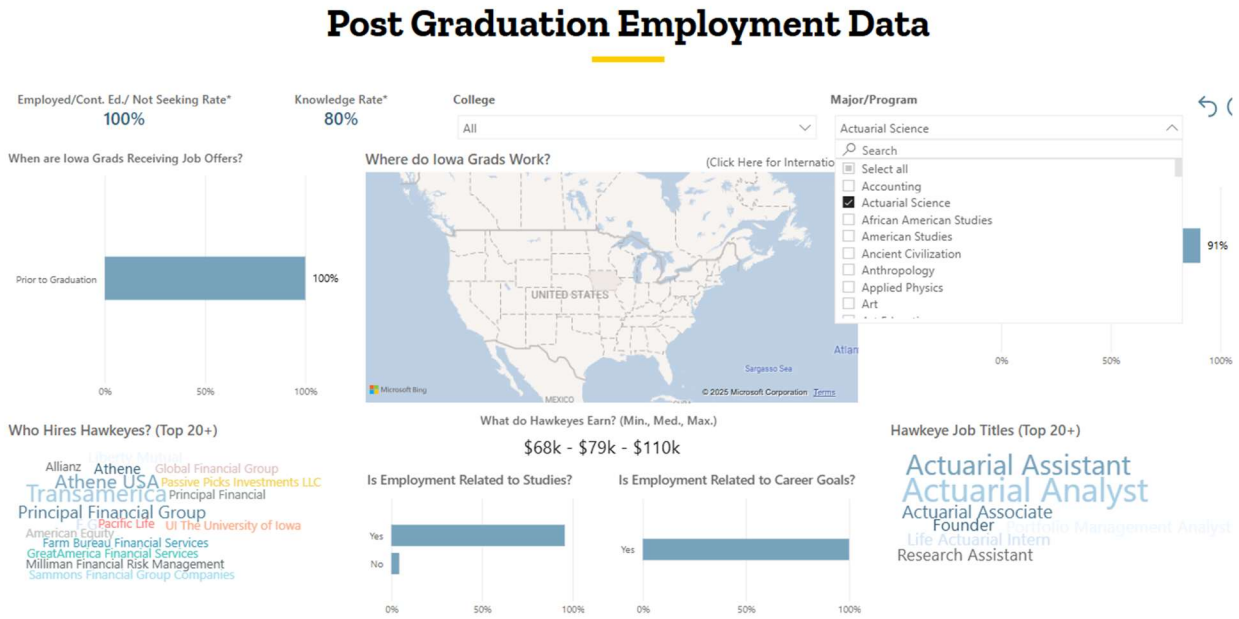
There is a U2G Data Science program if one is interested in an MS degree in Data Science.

Employment & Starting Salary

The annual **Actuarial Science, Insurance and Risk Management Career Fair** is held in September or early October. Several dozen employers usually attend. The date for 2026 is September 16.

"In 2020 Iowa's insurance industry output as a percentage of the state's total Gross Domestic Product (GDP) was 11.00%, ranking it highest among the 50 states. … As of October 4, 2021, Iowa has 209 domiciled insurers. … insurance industry annual economic activity of over $18.6 billion in 2020. **…** The insurance industry is recession-resistant." *Iowa Economic Development Authority*

https://careers.uiowa.edu/post-grad-data#employment-report



UI Actuarial Science graduates' starting salary statistics:

Graduation Date	Minimum	Median	Maximum
Summer 2018 to Spring 2021	$60,000	$76,000	$85,000
Summer 2019 to Spring 2022	$70,000	$80,000	$89,000
Summer 2020 to Spring 2023	$68,000	$79,000	$110,000
Summer 2021 to Spring 2024	$68,000	$79,000	$110,000

Median starting salaries of UI students who graduated between Summer 2021 and Spring 2024:

Actuarial Science $79,000
Business Analytics & Information Systems $70,000
Computer Science $70,000
Data Science $70,000
Finance $66,000
Geoscience $64,000
Accounting $62,000
College of Nursing $62,000
Informatics $62,000
Marketing $60,000
Risk Management & Insurance $60,000
Management $52,000
Political Science $51,000
Chemistry $50,000
Criminology, Law and Justice $50,000
Economics $50,000
Enterprise Leadership $50,000
Therapeutic Recreation $48,000
Art $47,000
College of Education $45,000
Communication Studies $45,000
Journalism and Mass Communication $45,000
Microbiology $45,000
Health Studies $43,000
Health & Human Physiology $41,000
Environmental Sciences $40,000
Public Health $40,000
Social Work $40,000
Speech & Hearing Science $40,000
Sport & Recreation Management $40,000
History $39,000
Biochemistry & Molecular Biology $38,000
English & Creative Writing $37,000
Psychology $37,000
Neuroscience $36,000
Cinema $33,000