ACTUARIAL SCIENCE, CAPSTONE CERTIFICATE

The Capstone Certificate in Actuarial Science at the School of Business is a post-baccalaureate program designed to prepare students for an actuarial career. The capstone program is not a degree program. It is a high-quality certificate program designed to prepare students to pass the preliminary professional exams required by the Casualty Actuarial Society (CAS) or the Society of Actuaries (SOA). A key strength of the capstone program is its short time to completion. Full-time students can expect to complete the program in two or three semesters.

Admitted applicants to the capstone certificate program have a strong mathematics background and are interested in applying that strength to the actuarial science profession. Capstone students will take classes in actuarial mathematics, predictive modeling, and loss models, and have the option to take other classes with consent from faculty.

Capstone students have access to all School of Business resources available to undergraduate students. Through connections with industry leaders, the University of Wisconsin–Madison Actuarial Science program offers opportunities for students to learn from practicing actuaries and other professionals. Learning opportunities include presentations by industry experts, Co-Curricular Learning Board events and Actuarial Club events. Employers recruit UW–Madison's actuarial science graduates extensively and the demand for actuaries is consistently strong and resilient to economic factors. Students have many resources, such as the Risk and Insurance Career Fair, to connect them with prospective employers so they can begin their actuarial career. Further detail is provided at the School of Business website (https://business.wisc.edu/graduate/actuarial-science-capstone/#about).

HOW TO GET IN

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ELIGIBILITY

Bachelor's Degree

Applicants must have a baccalaureate degree in a discipline other than actuarial science.

Prerequisite Coursework

This capstone certificate requires students have a background in mathematical probability. Applicants who do not have this background are encouraged to apply and will be expected to study mathematical probability within the first semester of the program.

DEADLINE

Applications are accepted for fall and spring semesters. All application materials must be received by the deadline (https://business.wisc.edu/graduate/actuarial-science-capstone/#admissions) posted on the program website.

APPLICATION

An online application for admission (https://specialstudents.wisc.edu/apply/) as a University Special student. Select "UNCS Capstone Certificate and the program: Actuarial Science". The following documents should be uploaded to the application:

- Resume or curriculum vitae
- Transcripts from all universities attended
- A personal statement that describes your interest in actuarial science, what you would like to do after completion of the Capstone Certificate Program and how the program will help you reach your goals
- Two letters of reference from previous or current supervisors and/or instructors (optional)
- TOEFL scores, if applicable

If you are unable to upload your application materials electronically:

- Email to jodi.wortsman@wisc.edu
- Send via US Mail to: School of Business, Attn: Capstone Program Coordinator, Risk and Insurance Department, 5252 Grainger Hall, 975 University Avenue, Madison, WI 53706.

See the capstone program website (https://business.wisc.edu/graduate/actuarial-science-capstone/#about) for more information.

ENROLLMENT

Once admitted, candidates will receive a formal letter of admission to UW–Madison from University Special Student Services along with enrollment instructions and information about tuition and deadlines. The capstone certificate coordinator also will send specific information pertaining to enrollment in and completion of the capstone program.

Additional detail is provided on the USSS enrollment page (https://specialstudents.wisc.edu/enrollment/).

REQUIREMENTS

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GRADE REQUIREMENTS

Student must have a minimum GPA of 2.00

REQUIRED COURSES

Students must complete 12 credits of coursework from the courses listed below. Students can elect to take courses that meet the SOA/CAS Validation by Educational Experience (VEE) requirements with approval from the capstone director.

Code	Title	Credits
Core		
ACT SCI 303	Theory of Interest	3
ACT SCI 650	Fundamentals of Long-Term Actuarial Modeling	3
ACT SCI 652	Fundamentals of Short-Term Actuarial Modeling	3
Elective		
Students must complete one of the following courses:		
ACT SCI 640	Actuarial Statistics for Risk Modeling	3-4
or ACT SCI 651	Advanced Long-Term Actuarial Modeling	
or ACT SCI 653	Advanced Short-Term Actuarial Modeling	
Total Credits		**12**

Optional Supporting Courses

The following courses are recommended as preparation for an actuarial career:

Code	Title	Credits
ACCT I S 100	Introductory Financial Accounting	3
ACT SCI 654	Regression and Time Series for Actuaries	2-3
ACT SCI 655	Health Analytics	3
ACT SCI 657	Risk Analytics	3
ECON 101	Principles of Microeconomics	4
ECON 102	Principles of Macroeconomics	3-4
FINANCE/ ECON 300	Introduction to Finance	3
GEN BUS 656	Foundations of Statistical Learning for Business Analytics	3
R M I 655	Risk Financing Techniques	3
Review course for actuarial examinations:		
ACT SCI 300	Probability for Actuaries	1

MINIMUM REQUIREMENTS FOR CAPSTONE CERTIFICATE COMPLETION

- Students must earn a minimum grade of C in each course used to meet Capstone Certificate requirements.
- Courses in which a student elects the pass/fail or audit option will not count toward completion of Capstone Certificate requirements.
- All of the Capstone Certificate credits must be earned "in residence" (which includes on campus and distance-delivered courses) at UW-Madison.
- All of the Capstone Certificate credits must be earned while enrolled in the Capstone Certificate program.

Individual Capstone Certificate programs may have additional requirements for completion, which will be listed above as/if applicable.

LEARNING OUTCOMES

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1. Recognize and explain the concept of risk, and apply the knowledge to the development of insurance products that are used to manage risk for the consumer as well as the risk of those products on the insurance organization.
2. Describe the actuarial profession, including the major professional organizations, the professional obligations of being an actuary, and the requirements to obtain and maintain a professional actuarial designation.
3. Demonstrate skills in critical thinking, quantitative analysis, and communication, as well as to develop an appreciation for actuarial theory, research, and the link to practical application.
4. Demonstrate the soft skills of being a professional.