

# Graduate Program Actuarial Science at The University of Iowa

Thank you for your interest in admission to the University of Iowa.

The University of Iowa was the first university to offer academic credit for creative work, continues as a pioneer in the area of interdisciplinary studies, and is a world leader in the health sciences. We invite you to explore our admission requirements and opportunities and to consider a campus visit.

### **ADMISSIONS REQUIREMENTS**

The general minimum requirements for admission to the Graduate College at the University of Iowa are listed below; the admission requirements of individual departments and programs may be higher.

For admission to the University of Iowa Graduate College (necessary for departmental admission) applicants must have:

• a U.S. bachelor's degree from a regionally accredited college or university, or an equivalent degree from another country as determined by the Office of Admissions with a minimum grade-point average (GPA) of 3.00, or foreign equivalent as determined by the Office of Admissions.

**IMPORTANT NOTE:** Application Deadlines: Decisions for Graduate Financial Support are typically made by April 15 for the upcoming academic year, so COMPLETED applications (WITH ALL LETTERS OF RECOMMENDATION, GRE SCORES, TOEFL (IF REQUIRED) from students requesting to be considered for financial support MUST reach us by February 15, 2020.



### Inside this issue, Fall 2019

M.S. in Actuarial Science	.2
Ph.D. in Statistics	.2
M.S. Timeline	.3
Ph.D. in Statistics	.4
FAQ	.5-8

More

Information:

www.stat.uiowa.edu



### **Academic Deadlines**

# M.S. in Actuarial Science Application

Fall Semester—June 15 (April 15 for international students) THEY MUST BE COMPLETED APPLICATIONS by February 15 to be considered for financial support.

Spring Semester— December 1, 2020. International students deadline is October 15. (Financial support will not be available)

Summer Session—Not offered

## Distinguished history- Promising future

### Ph.D. Degree

We do not have a formal Actuarial Science Ph.D. program at the University of Iowa. Students who desire to work on a Ph.D. in Statistics with concentration in actuarial science/ financial mathematics are cautioned that this is a very selective and highly mathematical program.

### **Masters of Science**

The Actuarial Science program prepares students for careers as actuaries. It also helps them learn material that is included in professional examinations administered by the Casualty Actuarial Society and the Society of Actuaries, which actuaries must pass in order to achieve professional status. In addition to actuarial science courses, students take courses in preparation for business aspects of the actuarial profession including accounting, law, finance, insurance, and economics. The Society of Actuaries (SOA) has recognized University of Iowa's actuarial science program as a Center of Actuarial Excellence (CAE). There are eight criteria for the designation, including curriculum, faculty composition, graduate quality, connection to industry, and research/scholarship.



The Old Capitol- the heart of campus!

# **Masters of Science Final Examination**

The M.S. final examination is offered the weekend before classes begin in January. The exam covers the material presented in:

ACTS:6160 Topics in Actuarial Science

ACTS:4180 Life Contingencies I

ACTS:4280 Life Contingencies II

ACTS:4380 Mathematics of Finance II

Students who do not succeed the first time they take the exam may repeat it once.

### M.S. Timeline

The timeline below describes the key milestones in the M.S. program. Meeting these milestones on time constitutes "adequate progress" toward the M.S. degree.

### Year 1, Fall

STAT:4100 Mathematical Statistics I

ACTS:3080 Mathematics of Finance I

ACTS:4130 Quantitative Methods for Actuaries

### Year 1, Spring

STAT:4101 Mathematical Statistics II
ACTS:4180 Life Contingencies I
ACTS:4380 Mathematics of Fi-

### Year 2, Fall

nance II

STAT:4560 Statistics for Risk Modeling ACTS:4280 Life Contingencies II ACTS:6160 Topics in Actuarial Science

### Year 2, Spring

M.S. Final Examination
ACTS:6480 Loss Distributions
ACTS:6580 Credibility and Survival Analysis
FIN:3300 Corporate Finance

### **Important Mission**

The Department of Statistics and Actuarial Science has four interrelated missions by which it serves the University, the state, and the world. These four missions are:

- to provide both undergraduate and graduate students with strong degree programs and excellent instruction in probability, statistics, and actuarial science;
- to conduct and publish outstanding research in probability, statistics, and actuarial science;
- to promote the solid practice of statistics at the Univer-

sity and beyond;

 and to produce leaders in the insurance, pension, and actuarial consulting industry.

### **Frequently Asked Questions**

**Could you please send me application materials?** We do not send materials by postal mail, since all of the needed information and required forms are available on this web page: https://grad.admissions.uiowa.edu/academics/statistics-ms-orphd

What are the application deadlines? Decisions for Graduate Financial Support are typically made by April 15 for the upcoming academic year, so completed applications from students requesting financial support should reach us by February 15.

Academic Requirements: (Actuarial Science) Students who apply to our M.S. program should have 3 semesters of calculus, a semester of linear algebra, at least one (preferably two) semesters of mathematical statistics (i.e. statistics with a calculus prerequisite), For students who know that they eventually want a Ph.D., it is advisable, to state this in your personal statement.

May I apply to begin the program in the Spring or Summer semester? We strongly discourage applications to begin the program in the Spring rarely do we admit students who submit applications. The reasons are that (1) courses that are offered only in the Fall semester are often prerequisites for Spring semester

courses; (2) funding is rarely available in the Spring for new students; and (3) class space is limited in the Spring.

Are there additional requirements for International Students? Yes, an International English Language Testing System (IELTS) total score of 7.0, with no sub score less than 6.0, may be used to satisfy the Englishlanguage requirement. All IELTS test takers will be required to take the on-campus English Proficiency Evaluation. A minimum

TOEFL score of 85 is required on

the internet-based test for the MS in Actuarial Science.



Are there additional requirements for International Students? Yes, an International English Language Testing System (IELTS) total score of 7.0, with no sub score less than 6.0, may be used to satisfy the Englishlanguage requirement. All IELTS test takers will be required to take the on-campus English Proficiency Evaluation. A minimum TOEFL score of 105 is required on the internet-based test if you are applying for an MS or PhD in Statistics; the minimum TOEFL score of 85 is required on the internet-based test if you are applying for the MS in Actuarial Science. Your TOEFL scores must be reported directly from the testing agency. Those dated within the last two years are acceptable. The University of Iowa's institutional code is 6681 (you do not need departmental codes). Students whose TOEFL scores are below 600 (250 on the computer-based test; 100 on the internet-based test) will be reguired to sit for an English evaluation upon arrival in Iowa City. The Graduate College will require these students to take and pass recommended course work in English usage. This requirement is waived for applicants who have completed a bachelor's degree (or higher) at an



accredited university in the United States, the United Kingdom, Canada (excluding French-speaking Quebec), English-speaking Africa, Australia, or New Zealand.

Please note regarding TOEFL: This requirement is waived for applicants who have completed a bachelor's degree (or higher) at an accredited university in the United States, the United Kingdom, Canada (excluding French-speaking Quebec), English-speaking Africa, Australia, or New Zealand. On the official application it will state that TOEFL is required, HOWEVER, this is not waived until The University of Iowa has received notice of your degree (or degrees) which can happen much later (after you graduate). (So we just say DO NOT WORRY about it and that this will be waived at a later date). TOEFL scores in general are only valid for 2 years after the test date. So if you took the exam



on April 2<sup>nd</sup>, 2018 the scores will only be valid until April 2<sup>nd</sup>, 2020, at which point ETS will not send out official scores for that particular test. As long as the offi-cial scores are sent from ETS prior to in-validating, we will accept them.



How many students apply each year? How many are admitted? Application volumes can vary substantially from year-to-year. For 2015-16 we received about 135 Actuarial Science applications. Incoming cohorts are generally 15 -20 students. The number of students admitted usually depends on the availability of funding to support the students.

What proportion of admitted students receives funding? Currently, two-thirds of the students admitted to our program have some form of funding. Most receive teaching or research assistantships. Some have external (i.e., non-University of Iowa) funding. A very small number of students receive fellowships from the University of Iowa's Graduate College. Research assistantships are primarily reserved for our PhD candidates. Funding is very competitive, many very well qualified and deserving students will not be granted support. In Fall 2015-16, 4 of 39 Actuarial Science students were supported and 42 of 49 Statistics students were supported. Often times other departments hire students as TA's (Mathematics, Economics)

If I am an international student and offered a graduate teaching assistant, what do I need to do to get my English language skills tested? All students for whom English is not a first language and who have first-time appointments as graduate teaching assistants (TAs) are required to take a test to assess their effectiveness in speaking English before they are assigned assistantship responsibilities. The English Speaking Proficiency Assessment (ESPA) is a test that assesses students' oral language and listening skills. To take the test, students must be enrolled in a graduate program at The University of Iowa, and an academic department must be considering hiring them as teaching assistants. Details will be given to all students.

All students to be tested must first register for the ESPA test through their departments. When a department offers (or is thinking about offering) a teaching assistantship to a student who has never before been a TA at the University, the department sends a Request for Evaluation form to the ESL Programs Office. The ESL Office sends the student (via the department) a letter indicating the time and place of the appropriate ESPA testing.

What is the difference between a fellowship and a teaching or research assistantship? A fellowship generally includes a 12-month stipend and a full tuition scholarship, renewable for four or five years. Usually, the first and last year of a fellowship are free from assisting faculty with research and teaching (while the middle years require that the student work with faculty on assignments related to teaching or research). In contrast, teaching and research assistantships are generally 9-month appointments, carrying a stipend and full tuition scholarship. Students who receive

teaching or research assistantships are expected to work an average of 10 (if 1/4 -time) or 20 (if 1/2-time) hours per week on assignments related to teaching or research.

Is funding available for students who are not U.S. citizens? Yes. Students who are not U.S. citizens are eligible for teaching assistantships, and in most cases, research assistantships. Note, however, that students who receive teaching assistantships must be certified by the English as a Second Language Program.

What are the minimum GRE scores for each area? We do not have a required minimum for the GRE scores. Of the 371 students who applied to our program for the 2015-16 academic year they had an average GRE: 151 Verbal, 166 Quantitative score.

### We read the entire application file!

Consequently, what a student may perceive as a deficiency in one component of the application (say, a low quantitative GRE score) can be compensated with exceptional strengths in others (say high grades in quantitative college courses like mathematics that are reflected on a transcript). If a student feels that her/his GRE scores do not accurately reflect her/his ability, then it is a good idea for the student to explain that in their statement of purpose (pointing to other evidence of their ability in other application materials).



How recent must my GRE scores be? Your GRE scores are no longer valid after five years. Thus, if your scores are five years or older, you must re-take the GRE.

Will you accept the initial report on my GRE that I received after taking it? No. We must have an official report sent to us by ETS (the organization that administers the GRE). We must have the official report by the application deadline to ensure that your application receives full consideration.

**How many times may I take the GRE?** You may take the GRE as many times as you would like. We will consider all of your scores as an aggregate. That is, we will examine the range, the median, and the trends in the scores. Note that taking the GRE multiple times and scoring higher on one attempt than others does not necessarily mean that we will consider only that highest attempt.

### What amounts to Financial Support?

In 2017-18, a 1/4 time appointment (10 hours of teaching or grading) receives a full-tuition scholarship and \$9408 stipend for the school year. A 1/2 time appointment (20 hours of teaching or grading) receives a full-tuition scholarship and \$18816 stipend for the school year. Students holding an assistantship (quarter-time or more) are classified as residents for fee purposes for the terms during which their appointments are held and any adjacent Summer Sessions in which they are enrolled. They are not assessed a technology fee, but will be responsible for miscellaneous fees assessed each semester (student health, student activities fee, building fee, student union fee, arts and cultural fees, recreation fee, etc., which total \$463 per semester).

**Do you accept letters of recommendation online?** Yes, we do. You just need to enter your recommender email address and Admissions will send a request on your behalf.

Who should I contact with specific questions? Please contact us by e-mail at: actuarial-science@uiowa.edu or by telephone at 319 335-2082, ask to speak to Margie.

