Duluth Campus

Statistics and Actuarial Science B.S.

Mathematics & Statistics

Swenson College of Science and Engineering

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2021
- Required credits to graduate with this degree: 120
- Required credits within the major: 56 to 57
- Degree: Bachelor of Science

The science of statistics is concerned with generating and analyzing data. Actuarial science applies statistical methods to assess risk in the insurance and financial industries. The statistics and actuarial science major prepares students for careers in a wide variety of fields, from banking and government to health care. Advisors have information on the national actuarial examinations.

Honors Requirements: To graduate with department honors, a student must complete the program with an overall and department GPA of 3.50, satisfactorily complete a research project under the guidance of a faculty member, and convey research results in a public presentation.

Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

Admission Requirements

For information about University of Minnesota admission requirements, visit the Office of Admissions website.

General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the Liberal Education Program.
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

Program Requirements

1. A minor or a second major from another department.

Calculus Courses (10 cr)

Calculus I

Take one of the following Calculus I courses:

MATH 1290 - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)

or MATH 1296 - Calculus I [LE CAT, LOGIC & QR] (5.0 cr)

Calculus II

MATH 1297 - Calculus II [LOGIC & QR] (5.0 cr)

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Statistics and Actuarial Science Core Courses (42-43 cr)

Mathematics Core I

MATH 3280 - Differential Equations with Linear Algebra (4.0 cr)
MATH 3298 - Calculus III (4.0 cr)
MATH 3355 - Discrete Mathematics (4.0 cr)

Mathematics Core II

MATH 4201 - Elementary Real Analysis (4.0 cr)
or MATH 4326 - Linear Algebra (3.0 cr)

Statistics Core I

STAT 3611 - Introduction to Probability and Statistics (4.0 cr)
STAT 3612 - Introduction to Probability and Statistics II (3.0 cr)

Statistics Core II

STAT 5511 - Regression Analysis (3.0 cr)
STAT 5531 - Probability Models (4.0 cr)
STAT 5571 - Probability (4.0 cr)
STAT 5572 - Statistical Inference (4.0 cr)

Computer Science

CS 1511 - Computer Science I [LE CAT] (5.0 cr)
or CS 1581 - Honors: Computer Science I [LE CAT] (5.0 cr)

Required Math Undergraduate Colloquium (1 cr)

Students must register their last semester before graduation.
MATH 3941 - Undergraduate Colloquium (1.0 cr)

Advanced Writing Requirement (3 cr)

Advanced Writing - 31xx

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Information current as of March 28, 2024