



## Duluth Campus

# Statistics Minor

Mathematics & Statistics

## Swenson College of Science and Engineering

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2020
- Required credits in this minor: 21 to 27

The minor in statistics is based on the completion of traditional mathematics courses including Calculus and Linear Algebra, a required introductory statistics course, one advanced course in a traditional statistics area, and two additional, advanced elective statistics courses. The minor in statistics certifies a student's quantitative, problem-solving, and critical thinking skills.

## Program Delivery

This program is available:

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

## Minor Requirements

1. The Statistics minor is not allowed with a Mathematics major or with a Statistics major.
2. Students may not receive both a minor in Mathematics and a minor in Statistics.

### Mathematics Requirement (8 - 9 cr)

#### Calculus I

[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)

#### Additional Mathematics

Students choosing MATH 3280 will be required to complete the prerequisite course MATH 1297 Calculus II.

[MATH 3280](#) - Differential Equations with Linear Algebra (4.0 cr)

or [MATH 3326](#) - Vectors and Matrices (3.0 cr)

### Calculus II (optional) (5 cr)

Students choosing MATH 3280, STAT 3411, 3612, or 5511 will be required to complete the prerequisite course MATH 1297 Calculus II.

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

### Statistics Requirements (6 - 7 cr)

#### Intro Statistics

Students choosing STAT 3411 will be required to complete the prerequisite course MATH 1297 Calculus II.

[STAT 3411](#) - Engineering Statistics (3.0 cr)

or [STAT 3611](#) - Introduction to Probability and Statistics (4.0 cr)

#### Additional Statistics

Students choosing STAT 3612 or 5511 will be required to complete the prerequisite course MATH 1297 Calculus II.

[STAT 3612](#) - Introduction to Probability and Statistics II (3.0 cr)

or [STAT 5411](#) - Analysis of Variance (3.0 cr)

or [STAT 5511](#) - Regression Analysis (3.0 cr)

### Statistics Electives (6 cr)

Each elective course must be 3 credits or more. Neither STAT 3411 nor 3611 can be counted as Statistics Electives. Any of STAT 3612, 5411, and 5511, which are not counted in the Statistics Requirement category, may count towards the Statistics Electives.

Take 2 or more course(s) totaling 6 or more credit(s) from the following:

- STAT 3xxx
- STAT 4xxx
- STAT 5xxx