## 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 2021
- Required credits in this minor: 20 to 22

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 <br> 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.

## Calculus ( 5 cr )

Students choosing MATH 3280, STAT 3411, 3612, or 4511 as options below will be required to complete the prerequisite course MATH 1297 Calculus II.
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 )
or MATH 1297 - Calculus II [LOGIC \& QR] ( 5.0 cr )
Additional Mathematics (3-4 cr)
MATH 3326 - Vectors and Matrices ( 3.0 cr )
or MATH 3280 - Differential Equations with Linear Algebra ( 4.0 cr )

## Introduction to Statistics (3-4 cr)

STAT 3411 - Engineering Statistics ( 3.0 cr )
or STAT 3611 - Introduction to Probability and Statistics ( 4.0 cr )

## Additional Statistics (3 cr)

STAT 3612 - Introduction to Probability and Statistics II ( 3.0 cr )
or STAT 4511 - Regression Analysis ( 3.0 cr )
or STAT 5411 - Analysis of Variance ( 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, 4511, and/or 5411, 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

