# **Twin Cities Campus**

# **Genetics Minor**

Genetics, Cell Biology, and Development TCBS

#### **College of Biological Sciences**

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Spring 2023
- Required credits in this minor: 20

The genetics minor focuses on understanding the biology of genes. Genes are composed of DNA, encode proteins, are the basis for phenotypes. Genes are the heritable information that is passed from parent to progeny. Differences in genes are the diversity that is the basis for evolution and the cause of genetic diseases. Training provided by the genetics minor will benefit students in a wide variety of majors including health sciences, engineering and agriculture.

## **Program Delivery**

This program is available:

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

## Admission Requirements

This minor is only for non-CBS students. Students pursuing the Cell Biology minor are not eligible for the Genetics minor.

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

# Minor Requirements

### Chemistry

CHEM 1081 - Chemistry for the Life Sciences I [PHYS] (3.0 cr)
CHEM 1065 - Chemical Principles I Laboratory [PHYS] (1.0 cr)
or CHEM 1061 - Chemical Principles I [PHYS] (3.0 cr)
CHEM 1065 - Chemical Principles I Laboratory [PHYS] (1.0 cr)
or CHEM 1071H - Honors Chemistry I [PHYS] (3.0 cr)

CHEM 1075H - Honors Chemistry I Laboratory [PHYS] (1.0 cr)

## **Biology**

BIOL 1009 - General Biology [BIOL] (4.0 cr) or BIOL 1951 - Foundations of Biology Lecture I for Biological Sciences Majors [BIOL] (4.0 cr) or BIOL 1951H - Foundations of Biology Lecture I for Biological Sciences Majors [BIOL] (4.0 cr)

#### Genetics

GCD 3022 - Genetics (3.0 cr) or BIOL 4003 - Genetics (3.0 cr)

#### **Electives**

Take 9 or more credit(s) from the following:

- •BIOL 5309 Molecular Ecology And Ecological Genomics (3.0 cr)
- •EEB 5042 Quantitative Genetics (3.0 cr)
- •GCD 2171 Stem Cells in Biomedicine and Society [TS] (3.0 cr)
- •GCD 3486 Personal Genome Analysis (3.0 cr)
- •GCD 4034 Molecular Genetics and Genomics (3.0 cr)
- •GCD 4143 Human Genetics and Genomics (3.0 cr)
- •GCD 4151 Molecular Biology of Cancer (3.0 cr)
- •GCD 4161 Developmental Biology (3.0 cr)
- •GCD 4171 Stem Cells in Biology and Medicine (3.0 cr)