

Duluth Campus

Biology B.A.

Biology

Swenson College of Science and Engineering

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2012
- Required credits to graduate with this degree: 120
- Required credits within the major: 62 to 71
- Degree: Bachelor of Arts

Biology has long been recognized as basic to environment, agriculture, and medicine. Because the topics studied by biologists range from subcellular particles to global environmental concerns, and because of the variety of living organisms and the various ways of studying them, many specialties have developed. The B.A. program is committed to the advancement of knowledge through scholarly research and other creative activities.

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](#).

Required prerequisites

Introductory Requirement (1 cr)

Transfer students with 24 or more credits and current UMD students who change colleges to CLA are exempt from this requirement.

New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - Learning in Community (1.0 - 2.0 cr)

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

Requirements for the B.A. in biology include:

* A second field of study (either minor or another major).

Biology Core Courses (25 cr)

[BIOL 1011](#) - General Biology I [LE CAT, NAT SCI] (5.0 cr)

[BIOL 1012](#) - General Biology II [SUSTAIN] (5.0 cr)



BIOL 3100 - Cell Biology (3.0 cr)
BIOL 2201 - Genetics (3.0 cr)
BIOL 2801 - General Ecology (3.0 cr)
BIOL 3987 - Communication in Biology (2.0 cr)
BIOL 3401 - Evolution (3.0 cr)
BIOL 2102 - Cell Biology Laboratory (2.0 cr)
or BIOL 2202 - Genetics Laboratory (2.0 cr)
or BIOL 2802 - Ecology Laboratory (2.0 cr)

Chemistry (10-14 cr)

CHEM 1113 - Introduction to General, Organic, and Biological Chemistry I [LE CAT, NAT SCI] (5.0 cr)
CHEM 1114 - Introduction to General, Organic, and Biological Chemistry II (5.0 cr)
or take the following courses:
CHEM 1153 - General Chemistry I [LE CAT, NAT SCI] (4.0 cr)
CHEM 1154 - General Chemistry Lab I [LE CAT, NAT SCI] (1.0 cr)
CHEM 1155 - General Chemistry II (4.0 cr)
CHEM 1156 - General Chemistry Lab II (1.0 cr)
CHEM 2541 - Organic Chemistry I (3.0 cr)
CHEM 2543 - Organic Chemistry I Laboratory (1.0 cr)
or take the following courses:
CHEM 1161 *{Inactive}* [LE CAT4, NAT SCI] (5.0 cr)
CHEM 1162 *{Inactive}* (5.0 cr)
CHEM 2541 - Organic Chemistry I (3.0 cr)
CHEM 2543 - Organic Chemistry I Laboratory (1.0 cr)

Math (5-10 cr)

Choose math from Option A or B.

Option A

MATH 1250 - Precalculus Analysis [LE CAT2, LOGIC & QR] (4.0 cr)
STAT 1411 - Introduction to Statistics [LE CAT, LOGIC & QR] (3.0 cr)
or STAT 2411 - Statistical Methods [LE CAT, LOGIC & QR] (3.0 cr)

or **Option B**

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)
MATH 1297 - Calculus II [LOGIC & QR] (5.0 cr)
or STAT 1411 - Introduction to Statistics [LE CAT, LOGIC & QR] (3.0 cr)
or STAT 2411 - Statistical Methods [LE CAT, LOGIC & QR] (3.0 cr)
or STAT 3611 - Introduction to Probability and Statistics (4.0 cr)

Biology Electives 2xxx-5xxx (18 cr)

BIOL 2xxx or above must include a minimum of two lab courses or courses with a lab component. Two of the following may be used:
MICB 5545, PHSL 5601, PHSL 5602.

Advanced Writing Requirement (3 cr)

WRIT 3150 - Advanced Writing: Science (3.0 cr)