Clinical Laboratory Science, B.S. *major* (3 + 1 Option)

The Clinical Laboratory Science student must consult with the Clinical Laboratory Science advisor at the start of the academic program and regularly throughout the course of study. The student must complete the Bemidji State University Liberal Education requirements before the year of clinical study.

To prepare the student for the clinical year of training, two options are available: 1) a 3+1 option, where a student earns a Clinical Laboratory Science, B.S., degree, with the fourth year spent at an affiliated clinical program, and 2) a 4+1 option, where a student earns a Biology, B.S., degree, including specific courses in biology and chemistry, and completes the fifth year at an affiliated clinical program. Both options are described below.

Required Credits: 84
Required GPA: 2.25

I REQUIRED COURSES

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2110 Human Anatomy and Physiology (5 credits)
- BIOL 3300 Introduction to Hematology (4 credits)
- BIOL 3380 Molecular Genetics: Theory and Practice (4 credits)
- BIOL 3580 Immunology (4 credits)
- BIOL 3710 Microbiology (4 credits)
- BIOL 4210 Parasitology (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- CHEM 4411 Biochemistry I (3 credits)
- CHEM 4471 Biochemistry Laboratory I (1 credit)

SELECT 1 OF THE FOLLOWING COURSES:

- MATH 1170 College Algebra (4 credits)
- MATH 1470 Precalculus (5 credits)

II REQUIRED CLINICAL STUDIES

Clinical year courses, taken during the senior year beginning with summer term, are taken through entrance into the clinical year program at the University of North Dakota or at affiliated hospitals.

SUGGESTED SEMESTER SCHEDULE FOR CLINICAL LABORATORY SCIENCE MAJOR, B.S.

The following is a list of Clinical Laboratory Science courses arranged by year. This suggested schedule is intended to help students plan their courses without course conflicts. Courses that are asterisked(*) are recommended but not required. Courses that are double asterisked(**) are required but offered only in alternate years.

Note: With proper student planning and in consultation with the Clinical Laboratory Science coordinator, a student may complete his or her academic degree in 128 semester credits. It is possible, in some circumstances, that courses in a student's Liberal Education program may be used in his or her academic major. In addition, Clinical Laboratory Science students should register for ECON 2000 Markets and Resource Allocation in Liberal Education Goal Area 5.

Freshman

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2110 Human Anatomy and Physiology (5 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
- ENGL 1151 Composition (3 credits)
- ENGL 2152 Argument and Exposition (3 credits)
- MATH 1170 College Algebra (4 credits)
- or MATH 1470 Precalculus (5 credits)

Sophomore

- *BIOL 2360 Genetics (4 credits)
- **BIOL 3300 Introduction to Hematology (4 credits)
- BIOL 3380 Molecular Genetics: Theory and Practice (4 credits)
- BIOL 3710 Microbiology (4 credits)
- BIOL 3755 Medical Microbiology (3 credits)
- CHEM 3311 Organic Chemistry I (3 credits)
- *CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- *CHEM 3372 Organic Chemistry Laboratory II (1 credit)

Junior

- **BIOL 3300 Introduction to Hematology (4 credits)
- BIOL 3580 Immunology (4 credits)
- BIOL 4210 Parasitology (4 credits)
- CHEM 4411 Biochemistry I (3 credits)
- CHEM 4471 Biochemistry Laboratory I (1 credit)
- STAT 2610 Applied Statistics (4 credits)
- or PSY 3401 Basic Statistics for Research (4 credits)

Senior

- Clinical year courses