Biology Major:
Biomedical Science Concentration - Bachelor of Science (BS)

Major requirements

(All colleges, excluding teacher certification programs)

39 credits (67 total credits including CHM and MTH requirements)

Each student must have a minimum of three 400 level BIO credits (excluding BIO 450, 479, 489, 491, 495, and 499) to fulfill requirements of the major.

BIO 105 General Biology 4
BIO 203 Organismal Biology 4
BIO 306 Genetics 4
BIO 307 Ecology 3
BIO 312 Human Anatomy and Physiology I 4
BIO 313 Human Anatomy and Physiology II 4
BIO 315 Cell Biology 4
BIO 491 Capstone Seminar in Biology 1

Select 11 credits of electives from the following:

BIO 202 Introduction to Biological Data Analysis and Interpretation
BIO 333 Radiation Biology
BIO 406 Parasitology
BIO 408 Developmental Biology
BIO 410 Human Cadaver Dissection
BIO 413 Medical Mycology
BIO 424 Human Endocrinology
BIO 428 Advanced Nutrition for the Health Professions
BIO 429 Evolution
BIO 432 Biology of Cancer
BIO 435 Molecular Biology
BIO 436 Molecular Biology Laboratory
BIO 440 Bioinformatics
BIO 443 Molecular Mechanism of Disease and Drug Action
BIO 449 Advanced Microscopy and Biological Imaging
BIO 465 Neurophysiology
BIO 466 Human Molecular Genetics
BIO 467 Neurobiology Laboratory Techniques
BIO 468 Human Molecular Genetics Lab
MIC 230 Fundamentals of Microbiology
MIC 310 Immunology
MIC 407 Pathogenic Bacteriology
MIC 410 Immunology Laboratory
MIC 420 Introductory Virology
MIC 421 Virology Laboratory

Up to two elective credits from a combination of the following (only BIO 499 can be taken for two credits):

BIO 450 Internship in Biology
BIO 479 Biology Teaching Assistant
BIO 489 Independent Study in Biology
BIO 495 Service Learning in Biology
BIO 499 Independent Research

Select a minimum of 24 chemistry credits including:

CHM 103 General Chemistry I
CHM 104 General Chemistry II
CHM 301 Analytical Chemistry

Select one of the organic chemistry options:

Option 1:
CHM 300 Survey of Organic Chemistry

Option 2:
CHM 303 Organic Chemistry Theory I
& CHM 304 Organic Chemistry Theory II
& CHM 305 Organic Chemistry Laboratory

Select one of the following:

CHM 325 Fundamental Biochemistry
CHM 417 & CHM 418 Biochemistry I: Macromolecules and Biochemistry II: Metabolism and Genetic Information

Math requirement

MTH 145 Elementary Statistics 4

Total Credits 67

Degree requirements

All students must complete the general education, college core, major/ minor, and university degree requirements in order to qualify for a degree. The easiest way to track all of these requirements is to refer to the Advisement Report (AR) found in the Student Information System (WINGS) Student Center. All enrolled students have access to the AR.

- General education (http://catalog.uwlax.edu/undergraduate/generaleducation)
- College core (p. 1)
- Baccalaureate degree requirements (p. 2)

College of Science and Health (SAH)

Bachelor of Science core requirements

B.S. and B.A. students graduating from the College of Science and Health are required to take two natural laboratory science courses selected from the general education laboratory science category (GE 05) and from BIO 203, BIO 304, BIO 210, CHM 104, ESC 221, ESC 222, PHY 104, or PHY 204, and they either must take two mathematics courses or one math course and one computer science course from the math/logical systems category of the general education requirements (GE 02). One of the two science courses must be from a department outside of the student’s major department.

Note: Math courses can be pairs, i.e. 150 and 151; MTH/CS majors can use two science courses from same department.

For the Bachelor of Science degree, students must complete a major from the college plus:
• a minor (or a second major) from any college or
• 18 credits at the 300/400 level in courses outside the major
department from any college. Internship credits generally do not count
toward this college core option.

Baccalaureate degree requirements
Candidates for the Bachelor of Arts or the Bachelor of Science degrees
must accomplish the following:

1. Fulfill the general education requirements.
2. Complete at least one ethnic studies (diversity) course.
3. Complete the courses prescribed by the Undergraduate Curriculum
Committee for the degree desired in the respective school or
college. (No substitutions for graduation may be made in course
requirements for a major or minor after the fourth week of the last
semester of the senior year.)
4. Earn a minimum of 120 semester credits with at least a 2.00
cumulative GPA.\(^1\) At least 40 credits must be earned in 300/400
(senior college) level courses. Courses earned at the 100/200 level
that transferred to UW-L as 300/400 level courses do not apply to
this requirement nor do courses from two-year schools.
5. Complete major and minor requirements with at least a 2.00
GPA\(^1\) in each major and minor (and concentration or emphasis, if
selected).
6. A minimum of 30 semester credits in residence at UW-L is required
for graduation. (See undergraduate resident requirement (http://
catalog.uwlax.edu/undergraduate/academicpolicies/graduation/
#undergraduate-residence-requirement).)
7. File a completed “Apply for Graduation” form via the WINGS
Student Center as soon as the student has registered for his or her
final semester or summer term in residence. December and winter
intersession graduates should file by May 1. May and summer
graduates should file by December 1.

\(^1\) Grade point average requirements for some programs will be
considerably higher than 2.00. Re-entering students may be required
to earn credits in excess of the 120 needed for graduation in any
curriculum in order to replace credits earned in courses in which the
content has changed substantially in recent years. Each case will be
judged on its own merit.

No degree will be awarded unless all requirements are fulfilled and
recorded within 30 days after the official ending date of each term.

Sample degree plan
Below is a sample degree plan that can be used as a guide to identify the
courses required to complete the major and other requirements needed
for degree completion. The actual degree plan may differ depending on
the course of study selected (second major, minor, etc.). This sample
plan also assumes readiness for each course and/or major plan. Actual
degree plans may differ. Some courses may not be offered every term.
Review course descriptions or the class timetable for course offering
information.

The sample degree plans represented in this catalog are intended for
first-year students entering UW-L in the fall term. Students should use the
Advisement Report (AR) in WINGS (https://wings.uwlax.edu/psp/cswprod/?
cmd=login&languageCd=ENG&amp;) and work closely with their
faculty advisor(s) and college dean’s office to ensure declaration and
completion of all requirements in a timely manner.

General Education Program

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<th>Fall</th>
<th>Credits</th>
<th>Spring</th>
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Total Credits: 120