

BIOLOGY, MICROBIOLOGY EMPHASIS, COMPREHENSIVE MAJOR

Liberal Arts (Code 080-002)

University Requirements

Code	Title	Credits
GRADUATION REQUIREMENTS FOR BACCALAUREATE DEGREE		
Credit Requirements		
	Minimum total for graduation ¹	120
	Upper division credits (courses numbered 300 and higher)	39
	Liberal Education Core	36
Academic Concentrations		
Grade Point Requirements ²		
	Total	2.00 average
	Resident	2.00 average
	Major	2.00 average
	Minor	2.00 average
	Certificate	2.00 average
University Residency Requirements ³		
	Minimum total	30
	Senior year	23
	Major, Standard, upper division in residence	12
	Major, Comprehensive, upper division in residence	21
	Certificate	25 percent of credits

Procedures Required for Graduation

Obtain admission to the degree program and/or the College offering it.

Apply for graduation on CampS.

¹ Certain programs exceed this minimum.

² See special requirements in each College.

³ See special requirements for the College of Education and Human Sciences.

Liberal Education Core

The University of Wisconsin-Eau Claire measures learning outcomes to ensure that its graduates have achieved a liberal education and prepared themselves to contribute to a complex society. Upon graduation, each undergraduate will have met the four learning goals of our liberal education core and the 11 learning outcomes they comprise.

Code	Title	Credits
LIBERAL EDUCATION CORE REQUIREMENTS		
a minimum of 36 credits		
Knowledge Goal		
	Knowledge Outcome 1 (K1): Natural Sciences	Two (2) learning experiences

One experience in laboratory science must be selected from either K1 or K2.

Knowledge Outcome 2 (K2): Social Sciences Two (2) learning experiences

One experience in laboratory science must be selected from either K1 or K2.

Knowledge Outcome 3 (K3): Humanities Two (2) learning experiences

Knowledge Outcome 4 (K4): Fine Arts One (1) learning experience

Skills Goal

Skills Outcome 1 (S1): Written and Oral Communication Two (2) learning experiences

One S1 must meet the University Writing Requirement

Skills Outcome 2 (S2): Mathematics One (1) learning experience

One S2 to meet the University Mathematics Requirement

Skills Outcome 3 (S3): Creativity One (1) learning experiences

Responsibility Goal

Responsibility Outcome 1 (R1): Equity, Diversity, and Inclusivity Two (2) learning experiences

One R1 must satisfy Design for Diversity

Responsibility Outcome 2 (R2): Global Perspectives One (1) learning experiences

Responsibility Outcome 3 (R3): Civic and Environmental Issues One (1) learning experiences

Integration Goal

Integration Outcome 1 (I1): Integration Two (2) learning experiences

Service-Learning Goal

Service-Learning 30 hours

College Degree Requirements

Bachelor of Arts or Bachelor of Science Degree (B.A./B.S.)

University Graduation Requirements. All candidates for degrees must fulfill the requirements for credits, curriculum, GPA, and University residency as specified in the section of this catalog titled University Graduation Requirements.

College Graduation Requirements: Grade Point Averages. All candidates for degrees in the College of Arts and Sciences must earn minimum resident and total GPAs of 2.00 in the major, the minor, and the certificate. The resident and total GPAs for the major are computed using all attempted credits applicable to the major including those offered by departments other than the major

department. The resident and total GPAs for the minor and the certificate are computed similarly.

Major-Minor and Major-Certificate Requirements. A standard major (a minimum of 36 credits) must be supplemented by a minor (a minimum of 24 credits) or by a certificate (12 to 18 credits) to meet graduation requirements for completing a first and second degree program. No minor or certificate is required with a Comprehensive Major (60 or more credits) or with two majors of 36 or more credits each.

Certain degree programs which include Comprehensive Majors may require more than the minimum of 120 credits for graduation.

Acceptable academic program combinations are determined at the college level. A major and a minor or a major and certificate or two majors (if available) may not be elected in the same department or program, except in the approved combinations listed here.

College Credits. Earn at least 90 credits in courses offered by the College of Arts and Sciences.

Bachelor of Arts Degree in the College of Arts and Sciences (B.A.)

Fulfillment of all University Graduation Requirements (which includes the Liberal Education Core); all College-level degree requirements (major and minor/certificate emphases, GPAs, earning at least 90 credits in Arts and Sciences course work); foreign language competency at the 102 level. Foreign language competency may be met in one of two ways: (1) Achieve a score on the foreign language placement test that qualifies the student to enter the 201-level course in a foreign language. (2) Earn a grade of at least C (not C-) or a mark of S in a 102-level foreign language course (or AIS 112 or AIS 122 / LANG 122 or CSD 103).

Bachelor of Science Degree in the College of Arts and Sciences (B.S.)

Fulfillment of all University Graduation Requirements (which includes the Liberal Education Core); all College-level degree requirements (major and minor/certificate emphases, GPAs, earning at least 90 credits in Arts and Sciences course work); mathematics competency at the MATH 111, MATH 112 or MATH 113 level. Mathematics competency can be met in one of three ways:

(1) Achieve a score on the mathematics placement test that qualifies the student to enter MATH 114. (2) Earn a grade of at least C (not C-) or a mark of S in MATH 111, MATH 112, or MATH 113. (3) Achieve a satisfactory score on the MATH 112 competency test. This test may be attempted no more than two times.

Major Requirements

This emphasis differs from the Biochemistry/Molecular Biology comprehensive major in that it provides more in-depth exposure to topics in microbiology including virology, immunology, and bacteriology. It is excellent preparation for careers in health science, industry, and for graduate training in microbiology and related fields. Requires completion of the core, the required credits as listed below, and biology electives to total at least 60 credits.

Core Requirements for All Biology Majors

Ecology and Environmental Biology Emphasis (Code 080-001); Microbiology Emphasis (Code 080-002); Biology, Liberal Arts (Code 080-203); Biology, Teaching (Code 080-205).

BIOL 221	Foundations of Biology I	4
BIOL 222	Foundations of Biology II	3

BIOL 223	Foundations of Biological Inquiry	2
Total Credits		9

Core Requirements for Biology, Liberal Arts

All students who pursue a Liberal Arts Comprehensive Major in Biology are also required to complete MATH 114, and CHEM 103 and CHEM 104, or CHEM 105, CHEM 106, and CHEM 109, or CHEM 115, in addition to the 60 credits required for the major.

Biology, Microbiology Emphasis, Comprehensive Major

Required Courses

BIOL 305	Molecular and Cell Biology	4
BIOL 323	Genetics	3
BIOL 324	Genetics Inquiry	2
BIOL 361	Biology of Microorganisms	5
BIOL 402	Current Topics in Virology and Immunology	4
CHEM 325	Organic Chemistry I with Laboratory	4
CHEM 326	Organic Chemistry II with Laboratory	4
CHEM 352	Fundamentals of Biochemistry	4

Elective Courses

At least two courses from the following:

BIOL 306	Infectious Disease Ecology
BIOL 353	Biotechnology
BIOL 371	Medical Mycology
BIOL 405	Advanced Cell and Molecular Lab
BIOL 409	Molecular Genetics
ENPH 450	Epidemiology