BIOLOGY, MAJOR - TEACHING

Teaching (Code 080-205)

University Requirements

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
Minimum total 30
Senior year 23
Major, Standard, upper division in residence 12
Major, Comprehensive, upper division in residence 21

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.

Applicability of Credits Toward Graduation

Junior College or Two-Year College Credits. A maximum of 72 semester credits earned in a junior college or two-year college will be accepted as degree credits at UW-Eau Claire.

Extension Credits. Credits earned in credit outreach courses offered by UW-Eau Claire are treated as resident credits. Credits earned in extension courses offered by other units of the University of Wisconsin System are treated as transfer credits. All other (non-UW) extension and correspondence credits are normally limited to one-fourth of the total required for graduation from any curriculum.

WTCS Credits. A maximum of 72 semester credits earned in college parallel programs at Madison Area Technical College, Milwaukee Area Technical College, Nicolet Area Technical College, or Chippewa Valley Technical College may be accepted as degree credits at UW-Eau Claire. A set number of general education courses will be accepted from other technical schools. Occupational and technical courses may also be considered for transfer if the quality and content of the course work from the technical college is judged to be comparable to course work at UW-Eau Claire. Refer to the Transfer Credit Wizard (https://my.uwec.edu/psp/PUBLIC/EMPLOYEE/HRMS/c/EAU_SS_CUSTOM.EAU_TRNCRDWZ.GBL) or contact the UW-Eau Claire Admissions Office for information about the current transfer policy.

USAFI Credit. UW-Eau Claire will accept up to 32 semester credits for work done through the United States Armed Forces Institute, under the provision for non-UW correspondence credit (see Extension Credits above).

Activity Credit (band, chorus, drama, KINS 100-184 courses) Students may count toward graduation no more than one credit of KINS 110-184 courses. Students may count toward graduation no more than four credits earned in any single activity course and no more than 12 credits resulting from any combination of activity courses (excluding KINS 110-184 courses).

Other Restricted Credits. For other University restrictions, see the following: Cooperative Education; Credit by Examination; Satisfactory/Unsatisfactory Registration; Transfer of Credits. College or departmental restrictions may also be placed on Independent Study (399-499 courses), Directed Study (395-495), and other types of credits.

APPLICABILITY OF CREDITS TOWARD GRADUATION

<table>
<thead>
<tr>
<th>Credit Type</th>
<th>Maximum Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total degree credit</td>
<td>120</td>
</tr>
<tr>
<td>Major, Standard</td>
<td>1 credit</td>
</tr>
<tr>
<td>Major, Comprehensive</td>
<td>2 credits</td>
</tr>
<tr>
<td>Total KINS 100-184</td>
<td>1 credit</td>
</tr>
<tr>
<td>Total Band, chorus, drama</td>
<td>12 credits</td>
</tr>
<tr>
<td>Single course band, chorus, drama</td>
<td>4 credits</td>
</tr>
<tr>
<td>Extension credits</td>
<td>No maximum</td>
</tr>
<tr>
<td>USAFI</td>
<td>32 credits</td>
</tr>
</tbody>
</table>

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.

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 experience

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 experience

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

Integration Goal

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

Service-Learning Goal
Service-Learning
30 hours

College Degree Requirements

University Requirements in Teacher Education in the College of Education and Human Sciences

All candidates for teacher education baccalaureate degrees must also meet the following:

1. Liberal Education requirements in the College of Education and Human Sciences.
2. Grade point requirements:
   - Resident 2.75 average
   - Total 2.75 average
   - Major 2.75 average
   - Minor (for certification only) 2.75 average

3. Residency requirements:
   - Minimum Total 30 credits
   - Senior Year 23 credits
   - Major, in upper division courses 12 credits
   - Comprehensive Major, in upper division courses 21 credits

4. Criteria and requirements for Professional Programs and for Admission to the Professional Semester.
5. Specific requirements of programs offered in the College of Education and Human Sciences. (See the departmental sections of this catalog.)

Early Adolescence Through Adolescence and Early Childhood through Adolescence
(formerly Secondary Education and Special Subjects)

Liberal Education Requirements are listed in the table below

<table>
<thead>
<tr>
<th>K2 (Social Sciences)</th>
<th>PSYC 260</th>
<th>Educational Psychology</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>AND another learning experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S3 (Creativity)</td>
<td>ES 497</td>
<td>Field Experience Seminar (included in major)</td>
<td>2</td>
</tr>
<tr>
<td>AND another learning experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R1 (Equity, Diversity, Inclusivity)</td>
<td>ES 385</td>
<td>Social Foundations: Human Relations (included in major)</td>
<td>3</td>
</tr>
<tr>
<td>AND another learning experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I1 (Integration)</td>
<td>ES 497</td>
<td>Field Experience Seminar (included in major)</td>
<td>2</td>
</tr>
<tr>
<td>AND another learning experience</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Teaching Licensure Requirements - EA-A Licensure
Program Options B and C

These program options are organized around content majors and education courses and are designed to prepare teachers for early adolescence through adolescence (EA-A) teaching or for early childhood through adolescence (EC-A) teaching in selected areas. Each program requires the student to complete:

1. a comprehensive major (at least 60 credits) or a standard major (at least 36 credits) plus one of the following: another standard major (at least 36 credits), or a minor (at least 24 credits), or a certificate (12-18 credits).
   Students choosing another major or minor may choose from the approved majors and minors listed in the table below, but are not required to do so. Students pursuing EA-A licensure are not required to elect a second plan that leads to certification.
2. a professional sequence consisting of teaching methods and related courses. Advising is done through the content major department.
Upon admission to program, candidates are assigned an advisor in education as well.

Option B: EA-A

Early Adolescence through Adolescence Licensure

Professional Sequence

ES 212  Initial Teaching Experience in Elementary, Middle, and High School Settings  2
ES 312  General Methods of Teaching  2
ES 317  Middle Level Methods and Curriculum  2
ES 318  Teacher Assisting  1
ES 328  Content Area Reading and Study Strategies  2
ES 385  Social Foundations: Human Relations  3

Prescribed special methods course(s) (see approved majors and minors below)

ES 445  Student Teaching in Middle Level Education  12
& ES 470  and Student Teaching in Secondary Education

or ES 446  Internship Teaching in Middle Level Education
or ES 475  Internship Teaching in Secondary Education

ES 490  Historical, Legal, and Philosophical Foundations of Education  3
ES 497  Field Experience Seminar  2
SPED 300  Inclusive Practices for Secondary Educators  2

Approved Majors and Minors for Option B

<table>
<thead>
<tr>
<th>Comprehensive Majors</th>
<th>Code</th>
<th>Prescribed Methods Course</th>
<th>Additional Requirement</th>
<th>Praxis II Content Test Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>540-006</td>
<td>ENGL 319, ENGL 419</td>
<td></td>
<td>ETS 5038</td>
</tr>
<tr>
<td>Earth and Space Science</td>
<td>160-015</td>
<td>ES 360 (F)</td>
<td></td>
<td>ETS 5435</td>
</tr>
<tr>
<td>Mathematics</td>
<td>180-002</td>
<td>ES 357</td>
<td></td>
<td>ETS 5061</td>
</tr>
<tr>
<td>Physical Science</td>
<td>240-004</td>
<td>ES 360 (F)</td>
<td>BIOL 180 or GEOG 178</td>
<td>ETS 5435</td>
</tr>
</tbody>
</table>

Physics-Mathematics

Physics Emphasis 210-003

Mathematics Emphasis 210-004

Social Studies 500-XXX

<table>
<thead>
<tr>
<th>Majors</th>
<th>Code</th>
<th>Prescribed Methods Course</th>
<th>Additional Requirements</th>
<th>Praxis II Content Test Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>080-205</td>
<td>ES 360 (F)</td>
<td>BIOL 180 or GEOG 178</td>
<td>ETS 5435</td>
</tr>
<tr>
<td>Chemistry</td>
<td>100-204</td>
<td>ES 360 (F)</td>
<td>BIOL 180 or GEOG 178</td>
<td>ETS 5435</td>
</tr>
<tr>
<td>Economics</td>
<td>360-204</td>
<td>ES 356</td>
<td>ECON 103, BIOL 180 or GEOG 178</td>
<td>ETS 5081</td>
</tr>
<tr>
<td>English</td>
<td>540-210</td>
<td>ENGL 319, ENGL 419</td>
<td></td>
<td>ETS 5038</td>
</tr>
<tr>
<td>History</td>
<td>380-206</td>
<td>ES 356</td>
<td>ECON 103, BIOL 180 or GEOG 178</td>
<td>ETS 5081</td>
</tr>
<tr>
<td>Mathematics</td>
<td>180-207</td>
<td>ES 357</td>
<td>BIOL 180 or GEOG 178</td>
<td>ETS 5161</td>
</tr>
<tr>
<td>Physics</td>
<td>230-205</td>
<td>ES 360 (F)</td>
<td>BIOL 180 or GEOG 178</td>
<td>ETS 5435</td>
</tr>
<tr>
<td>Political Science</td>
<td>420-203</td>
<td>ES 356</td>
<td>ECON 103, BIOL 180 or GEOG 178</td>
<td>ETS 5081</td>
</tr>
<tr>
<td>Spanish</td>
<td>320-405</td>
<td>ES 366 (F)</td>
<td>Study abroad in language</td>
<td>WPT and OPI or OPIc</td>
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</table>

Minors

<table>
<thead>
<tr>
<th>Code</th>
<th>Prescribed Methods Course</th>
<th>Additional Requirements</th>
<th>Praxis II Content Test Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>080-403</td>
<td>ES 360 (F)</td>
<td>BIOL 180 or GEOG 178</td>
</tr>
<tr>
<td>Chemistry</td>
<td>100-406</td>
<td>ES 360 (F)</td>
<td>BIOL 180 or GEOG 178</td>
</tr>
<tr>
<td>Coaching</td>
<td>971-403</td>
<td>KINS 492</td>
<td>no addt'l exam</td>
</tr>
<tr>
<td>Economics</td>
<td>360-404</td>
<td>ES 356</td>
<td>BIOL 180 or GEOG 178</td>
</tr>
<tr>
<td>English</td>
<td>540-408</td>
<td>ENGL 319, ENGL 419</td>
<td></td>
</tr>
<tr>
<td>French</td>
<td>260-404</td>
<td>ES 366 (F) in language</td>
<td>Study abroad in language</td>
</tr>
<tr>
<td>Geography</td>
<td>140-413</td>
<td>ES 356</td>
<td>ECON 103, BIOL 180 or GEOG 178</td>
</tr>
<tr>
<td>Geology</td>
<td>160-402</td>
<td>ES 360 (F)</td>
<td></td>
</tr>
<tr>
<td>German</td>
<td>280-404</td>
<td>ES 366 (F)</td>
<td>Study abroad in language</td>
</tr>
<tr>
<td>History</td>
<td>380-404</td>
<td>ES 356 (SP)</td>
<td>ECON 103, BIOL 180 or GEOG 178</td>
</tr>
<tr>
<td>Learning Disabilities</td>
<td>950-471</td>
<td></td>
<td>ETS 5146</td>
</tr>
<tr>
<td>Mathematics</td>
<td>180-407</td>
<td>ES 357</td>
<td></td>
</tr>
<tr>
<td>Physics</td>
<td>230-403</td>
<td>ES 360 (F)</td>
<td>BIOL 180 or GEOG 178</td>
</tr>
<tr>
<td>Political Science</td>
<td>420-403</td>
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<tr>
<td>Sociology</td>
<td>480-404</td>
<td>ES 356</td>
<td>ECON 103, BIOL 180 or GEOG 178</td>
</tr>
<tr>
<td>Spanish</td>
<td>320-405</td>
<td>ES 366 (F)</td>
<td>Study abroad in language</td>
</tr>
</tbody>
</table>
Teaching 550-408 ES 405 (F) 1 yr college level foreign language

1 Broadfield Science add-on certification is available with these majors and requires ES 360 (fall only). Students should contact their advisor to discuss their intention to add the Broadfield Science certification.

Admission Requirements
Admission to Professional Education Programs

Major Requirements
Teaching (Code 080-205)

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).

Thirty-six semester credits, including the core and required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 221</td>
<td>Foundations of Biology I</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 222</td>
<td>Foundations of Biology II</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 223</td>
<td>Foundations of Biological Inquiry</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Required Courses:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 180</td>
<td>Environmental Biology and Conservation</td>
</tr>
<tr>
<td>BIOL 321</td>
<td>Ecology</td>
</tr>
<tr>
<td>BIOL 323</td>
<td>Genetics</td>
</tr>
<tr>
<td>BIOL 324</td>
<td>Genetics Inquiry</td>
</tr>
<tr>
<td>BIOL 496</td>
<td>Student Academic Apprenticeship</td>
</tr>
</tbody>
</table>

Additional biology courses to complete the 36-credit total in biology.

In addition to the 36 credits in biology, chemistry requirement chosen from CHEM 103 and CHEM 104 OR CHEM 105, CHEM 106 and CHEM 109 OR CHEM 115. This major is restricted to students in the College of Education and Human Sciences: Education Studies: Option B and leads to licensure to teach Biology in Early Adolescence through Adolescence classrooms.

Information for Teaching Majors
Biology majors entering teaching must also take ES 360.

Broadfield Science Licensure:
Completion of the following requirements and ES 360 may be used in lieu of a minor and adds Broadfield Science licensure to the Teaching major:

A. At least 14 credits from one of the following areas:

Area 1

<table>
<thead>
<tr>
<th>Required:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 103 &amp; CHEM 104</td>
<td>General Chemistry I and General Chemistry II</td>
</tr>
</tbody>
</table>

B. Eight credits in each of the two areas not selected in A above:

Area 1

<table>
<thead>
<tr>
<th>Required:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 103</td>
<td>General Chemistry I</td>
</tr>
</tbody>
</table>

Area 2

<table>
<thead>
<tr>
<th>Required:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 115</td>
<td>Chemical Principles</td>
</tr>
<tr>
<td>CHEM 109</td>
<td>General Chemistry II with Lab</td>
</tr>
</tbody>
</table>

Additional courses from the following:

GEOL 106 Earth Science
GEOL 110 Physical Geology
GEOL 115 Environmental Geology
GEOL 118 Societal Issues in Earth Science

Select one of the following:

GEOL 102 Oceanography
GEOL 301 Earth Resources
GEOL 303 Rocky Mountain Field Studies
GEOL 308 Water Resources
PHYS 229 Astronomy-Stars and Galaxies

Additional courses from the following:

GEOL 102 Oceanography
GEOL 301 Earth Resources
GEOL 303 Rocky Mountain Field Studies
GEOL 308 Water Resources
PHYS 229 Astronomy-Stars and Galaxies

Select one of the following:

GEOL 102 Oceanography
GEOL 301 Earth Resources
GEOL 303 Rocky Mountain Field Studies
GEOL 308 Water Resources
PHYS 229 Astronomy-Stars and Galaxies
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 211</td>
<td>General Physics</td>
</tr>
<tr>
<td>&amp; PHYS 212</td>
<td>and General Physics</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>PHYS 231</td>
<td>University Physics I</td>
</tr>
<tr>
<td>&amp; PHYS 232</td>
<td>and University Physics II</td>
</tr>
</tbody>
</table>

**Area 3**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 106</td>
<td>Earth Science</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>GEOL 110</td>
<td>Physical Geology</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>GEOL 115</td>
<td>Environmental Geology</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>GEOL 118</td>
<td>Societal Issues in Earth Science</td>
</tr>
<tr>
<td>GEOG 104</td>
<td>The Physical Environment</td>
</tr>
<tr>
<td>PHYS 226</td>
<td>Astronomy-Solar System</td>
</tr>
<tr>
<td>or PHYS 229</td>
<td>Astronomy-Stars and Galaxies</td>
</tr>
</tbody>
</table>