**GEOLOGY, GENERAL GEOLOGY EMPHASIS, COMPREHENSIVE MAJOR**

**Liberal Arts (Code 160-010)**

**University Requirements**

**GRADUATION REQUIREMENTS FOR BACCALAUREATE DEGREE**

<table>
<thead>
<tr>
<th>Credit Requirements</th>
<th>Minimum total for graduation</th>
<th>Upper division credits (courses numbered 300 and higher)</th>
<th>Liberal Education Core</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>120</td>
<td>39</td>
<td>36</td>
</tr>
</tbody>
</table>

**Academic Concentrations**

<table>
<thead>
<tr>
<th>Grade Point Requirements</th>
<th>Total</th>
<th>2.00 average</th>
<th>Resident</th>
<th>2.00 average</th>
<th>Major</th>
<th>2.00 average</th>
<th>Minor</th>
<th>2.00 average</th>
<th>Certificate</th>
<th>2.00 average</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>University Residency Requirements</strong></td>
<td>Minimum total</td>
<td>30</td>
<td>Senior year</td>
<td>23</td>
<td>Major, Standard, upper division in residence</td>
<td>12</td>
<td>Major, Comprehensive, upper division in residence</td>
<td>21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certificate</td>
<td>25 percent of credits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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.

**USAIF 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 Restrictions</th>
<th>Total degree credit</th>
<th>Major, Standard</th>
<th>Major, Comprehensive</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Satisfactory/Unsatisfactory</strong></td>
<td>maximum 12</td>
<td>maximum 1 course</td>
<td>maximum 2 courses</td>
</tr>
<tr>
<td><strong>Credit by Examination</strong></td>
<td>maximum ¼ of total</td>
<td>maximum ½ of total</td>
<td></td>
</tr>
<tr>
<td><strong>Two-Year College Credits</strong></td>
<td>maximum 72 credits</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Activity credit (band, chorus, drama, KINS 100-184)</strong></td>
<td>maximum 1 credit</td>
<td>maximum 12 credits</td>
<td>maximum 4 credits</td>
</tr>
<tr>
<td><strong>Extension credits</strong></td>
<td>no maximum</td>
<td>maximum ¼ of total</td>
<td></td>
</tr>
<tr>
<td><strong>USAIF</strong></td>
<td>maximum 32 credits</td>
<td></td>
<td></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

**Knowledge Goal**

<table>
<thead>
<tr>
<th>Knowledge Outcome</th>
<th>Credits</th>
<th>Learning Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>K1: Natural Sciences</td>
<td>Two (2)</td>
<td>Two (2)</td>
</tr>
<tr>
<td>K2: Social Sciences</td>
<td>Two (2)</td>
<td>Two (2)</td>
</tr>
<tr>
<td>K3: Humanities</td>
<td>Two (2)</td>
<td>Two (2)</td>
</tr>
<tr>
<td>K4: Fine Arts</td>
<td>One (1)</td>
<td>One (1)</td>
</tr>
</tbody>
</table>

**Skills Goal**

<table>
<thead>
<tr>
<th>Skills Outcome</th>
<th>Credits</th>
<th>Learning Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1: Written and Oral Communication</td>
<td>One (1)</td>
<td>One (1)</td>
</tr>
<tr>
<td>S2: Mathematics</td>
<td>One (1)</td>
<td>One (1)</td>
</tr>
<tr>
<td>S3: Creativity</td>
<td>One (1)</td>
<td>One (1)</td>
</tr>
</tbody>
</table>

**Responsibility Goal**

<table>
<thead>
<tr>
<th>Responsibility Outcome</th>
<th>Credits</th>
<th>Learning Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1: Equity, Diversity, and Inclusivity</td>
<td>Two (2)</td>
<td>Two (2)</td>
</tr>
<tr>
<td>R2: Global Perspectives</td>
<td>One (1)</td>
<td>One (1)</td>
</tr>
<tr>
<td>R3: Civic and Environmental Issues</td>
<td>One (1)</td>
<td>One (1)</td>
</tr>
</tbody>
</table>

**Integration Goal**

<table>
<thead>
<tr>
<th>Integration Outcome</th>
<th>Credits</th>
<th>Learning Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>I1: Integration</td>
<td>Two (2)</td>
<td>Two (2)</td>
</tr>
</tbody>
</table>

**Service-Learning Goal**

<table>
<thead>
<tr>
<th>Service-Learning</th>
<th>Credits</th>
<th>Learning Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

### 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

**Liberal Arts (Code 160-010)**

The objective of the comprehensive major in geology is to prepare students for graduate programs in geological sciences or for careers as professional geologists, hydrogeologists, or geological engineers. The liberal arts comprehensive major requires completion of the Core and one of the five Emphases listed below.
NOTE: Communication classes, both written and oral, are strongly recommended to fulfill liberal education requirements in any of the following emphases.

Core Requirements for all Liberal Arts and Teaching Emphases in the Comprehensive Geology Major

23-25 credits

Select one of the following:

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

Required:

- GEOL 312 Mineralogy and Petrology I
- GEOL 320 Sedimentology and Stratigraphy
- GEOL 468 Computers in Geology
- GEOL 470 Field Geology I
- CHEM 115 Chemical Principles (or equivalent)

Capstone Experience

Select additional electives to total at least 60 credits from the following:

- BOI 308 Evolution
- BIOL 338 Vegetation Ecology
- BIOL 345 Invertebrate Zoology
- BIOL 356 Wisconsin Wildlife
- CHEM 213 Quantitative Analysis
- CHEM 218 Introduction to Inorganic Chemistry
- CHEM 433 Physical Chemistry I
- CHEM 434 Physical Chemistry II
- GEOG 338 Remote Sensing of the Environment
- GEOG 345 Quaternary Environments
- GEOG 350 Soils and the Environment
- GEOG 363 Watershed Analysis
- GEOG 364 Fluvial Processes and Landforms
- GEOG 435 Geographic Information Systems III
- MSE 315 Materials Characterization
- Any Geology course numbered 300 or above
- MATH 216 Calculus III
- MATH 246 Elementary Statistics
- MATH 311 Differential Equations
- MATH 324 Linear Algebra
- PHYS 212 General Physics
- PHYS 232 University Physics II
- PHYS 226 Astronomy-Solar System
- PHYS 229 Astronomy-Stars and Galaxies
- PHYS 350 Electric and Electronic Circuits
- PHYS 375 Electromagnetic Fields

1 Each major is required to complete a capstone experience.

For liberal arts majors, the capstone options may include: GEOL 395 (for a minimum of two credits) or GEOL 471. The capstone will consist of student selection of one of the following options: faculty/student collaborative research, preparation and presentation of a department seminar, internship, field experiences, or other approved experiences. Students working with their adviser will submit a proposal to the department faculty outlining their choice of the capstone experience and explicitly stating how the capstone fits into their personal career goals. The proposal for a capstone experience must be submitted to the chair of the department no later than the second week of the first semester of the senior year.

For teaching majors, the capstone may be satisfied by successful completion of the professional semester in the College of Education and Human Sciences.

General Geology Emphasis

Recommended for students planning careers in geology, especially those planning to attend graduate school in geology or engineering. This emphasis comprises the Core, plus the required and elective credits as listed below.

Sixty semester credits, including:

**Required Courses**

- GEOL 313 Mineralogy and Petrology II
- GEOL 315 Hydrogeology I
- GEOL 330 Structural Geology
- GEOL 418 Earth History
- GEOL 471 Field Geology II
- MATH 215 Calculus II
- PHYS 211 General Physics
- or PHYS 231 University Physics I
- CS 170 Computing for the Sciences and Mathematics
- or GEOG 335 Geographic Information Systems I

**Electives**

At least two courses selected from:

- GEOL 336 Introduction to Geochemistry
- GEOL 345 Geomorphology and Aerial Photography Interpretation
- or GEOL 420 Glacial Geology
- GEOL 365 Economic Mineral Deposits
- GEOL 416 Hydrogeology II
- GEOL 445 Engineering Geology and Geophysics

1 Students should be advised that a second semester of physics is usually required for entrance to graduate school.

NOTE: No degree credit may be earned under the Satisfactory/Unsatisfactory option in any required courses in a geology major or minor.