GEOLOGY, HYDROGEOLOGY AND WATER CHEMISTRY EMPHASIS, COMPREHENSIVE MAJOR

 Liberal Arts (Code 160-013)

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
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.

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

Credit Restrictions

Satisfactory/Unsatisfactory

Total degree credit maximum 12
Major, Standard maximum 1 course
Major, Comprehensive maximum 2 courses

Credit by Examination

Total degree credit maximum ¼ of total
Major or minor maximum ½ of total

Two-Year College Credits

Total degree credit maximum 72 credits

Activity credit (band, chorus, drama, KINS 100-184)

Total KINS 100-184 maximum 1 credit
Total Band, chorus, drama maximum 12 credits
Single course band, chorus, drama maximum 4 credits

Extension credits

UW-System no maximum
Other extension/ correspondence maximum ¼ of total

USAFI

USAFI maximum 32 credits

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**

<table>
<thead>
<tr>
<th>Knowledge Goal</th>
<th>Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Outcome 1 (K1): Natural Sciences</td>
<td>Two (2) learning experiences</td>
</tr>
<tr>
<td>Knowledge Outcome 2 (K2): Social Sciences</td>
<td>Two (2) learning experiences</td>
</tr>
<tr>
<td>Knowledge Outcome 3 (K3): Humanities</td>
<td>Two (2) learning experiences</td>
</tr>
<tr>
<td>Knowledge Outcome 4 (K4): Fine Arts</td>
<td>One (1) learning experience</td>
</tr>
</tbody>
</table>

**Skills Goal**

| Skills Outcome 1 (S1): Written and Oral Communication | Two (2) learning experiences |
| Skills Outcome 2 (S2): Mathematics | One (1) learning experience |
| Skills Outcome 3 (S3): Creativity | One (1) learning experience |

**Responsibility Goal**

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

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**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.

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**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 160-013)**

The objective of the comprehensive major in geology is to prepare students for graduate programs in geological sciences or geological engineering, or for careers as professional hydrogeologists or geologists. 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: 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 106</td>
<td>Earth Science</td>
<td>1</td>
</tr>
<tr>
<td>GEO 110</td>
<td>Physical Geology</td>
<td>4</td>
</tr>
<tr>
<td>GEO 115</td>
<td>Environmental Geology</td>
<td>1</td>
</tr>
<tr>
<td>GEO 118</td>
<td>Societal Issues in Earth Science</td>
<td>1</td>
</tr>
</tbody>
</table>

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 312</td>
<td>Mineralogy and Petrology I</td>
<td>5</td>
</tr>
<tr>
<td>GEO 320</td>
<td>Sedimentology and Stratigraphy</td>
<td>4</td>
</tr>
<tr>
<td>GEO 468</td>
<td>Computers in Geology</td>
<td>1</td>
</tr>
<tr>
<td>GEO 470</td>
<td>Field Geology I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 115</td>
<td>Chemical Principles (or equivalent)</td>
<td>6</td>
</tr>
</tbody>
</table>

Capstone Experience  1  0-2

1 Each major is required to complete a capstone experience.

For liberal arts majors, the capstone options may include: GEO 395 (for a minimum of two credits) or GEO 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.

Hydrogeology and Water Chemistry Emphasis

Recommended for students planning careers in geology such as hydrogeology, geochemistry, and environmental geology. This program is designed to fulfill requirements for admission to graduate programs in hydrogeology, geochemistry, and environmental geology. This program also meets 1998 Wisconsin Department of Natural Resources’ academic requirements for classification as a hydrogeologist. This emphasis includes the Core, plus the required and elective credits as listed below.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 308</td>
<td>Water Resources</td>
<td>3</td>
</tr>
<tr>
<td>GEO 315</td>
<td>Hydrogeology I</td>
<td>4</td>
</tr>
<tr>
<td>GEO 330</td>
<td>Structural Geology</td>
<td>4</td>
</tr>
<tr>
<td>GEO 336</td>
<td>Introduction to Geochemistry</td>
<td>3</td>
</tr>
<tr>
<td>GEO 345</td>
<td>Geomorphology and Aerial Photography Interpretation</td>
<td>3</td>
</tr>
<tr>
<td>GEO 416</td>
<td>Hydrogeology II</td>
<td>4</td>
</tr>
<tr>
<td>GEO 350</td>
<td>Engineering Geology</td>
<td>3</td>
</tr>
<tr>
<td>or GEO 461</td>
<td>Applied Geophysics</td>
<td></td>
</tr>
</tbody>
</table>

or any geology course numbered 300 or higher 1

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.