GEOLGY, DUAL DEGREE GEOLOGICAL ENGINEERING EMPHASIS, COMPREHENSIVE MAJOR

Liberal Arts (Code 160-014)

University Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td>Graduation Requirements for Baccalaureate Degree</td>
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</tr>
</tbody>
</table>

Credit Requirements

- Minimum total for graduation: 120
- Upper division credits (courses numbered 300 and higher): 39
- Liberal Education Core: 36
- Academic Concentrations: 2

Grade Point Requirements

- 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.
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.

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Knowledge Goal

- Knowledge Outcome 1 (K1): Natural Sciences
- Knowledge Outcome 2 (K2): Social Sciences
- Knowledge Outcome 3 (K3): Humanities
- Knowledge Outcome 4 (K4): Fine Arts

Skills Goal

- Skills Outcome 1 (S1): Written and Oral Communication
- Skills Outcome 2 (S2): Mathematics
- Skills Outcome 3 (S3): Creativity

Responsibility Goal

- Responsibility Outcome 1 (R1): Equity, Diversity, and Inclusivity
- Responsibility Outcome 2 (R2): Global Perspectives
- Responsibility Outcome 3 (R3): Civic and Environmental Issues

Integration Goal

- Integration Outcome 1 (I1): Integration

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**

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.

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

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<thead>
<tr>
<th>Code</th>
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<tr>
<td>GEOL 110</td>
<td>Physical Geology</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 115</td>
<td>Environmental Geology</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 118</td>
<td>Societal Issues in Earth Science</td>
<td>4</td>
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#### Required Courses

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<td>Hydrogeology I</td>
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<td>GEOL 330</td>
<td>Structural Geology</td>
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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.

**Dual Degree Geological Engineering Emphasis**

This emphasis combines the benefits of a traditional geology degree with those of a formal engineering education. In this program students receive a UW-Eau Claire geology degree in conjunction with a bachelor’s degree in engineering from the University of Minnesota. Students will typically complete most of the UW-Eau Claire University requirements and Dual Degree geology requirements while at UW-Eau Claire before transferring to the engineering school. Students must complete a minimum of 84 semester credits before transferring to the engineering school, 56 of which must be taken in residence at UW-Eau Claire.

This emphasis comprises the geology Core plus the required credits as listed below. Successful completion of Geol 470 with a grade of C or above will constitute completion of the capstone experience. Students should visit the department office for a sample course schedule that would allow them to complete three full years at UW-Eau Claire and be prepared to transfer to the University of Minnesota for an additional one to two years.

Students must fulfill the liberal education requirements of both UW-Eau Claire and the University of Minnesota. This can be accomplished in a reasonable manner with careful course selection. Please see Geology advisor.

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<tr>
<td>GEOL 345</td>
<td>Geomorphology and Aerial Photography Interpretation</td>
<td>3</td>
</tr>
<tr>
<td>or GEOL 420</td>
<td>Glacial Geology</td>
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<tr>
<td>GEOL 461</td>
<td>Applied Geophysics</td>
<td>4</td>
</tr>
<tr>
<td>MATH 215</td>
<td>Calculus II</td>
<td>4</td>
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<tr>
<td>MATH 216</td>
<td>Calculus III</td>
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<tr>
<td>PHYS 231</td>
<td>University Physics I</td>
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<tr>
<td>PHYS 232</td>
<td>University Physics II</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 255</td>
<td>Statics</td>
<td>3</td>
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NOTES:

1) For students planning to practice as professional engineers, GEOG 335; GEOL 416 at UW-Eau Claire or equivalent courses at University of Minnesota are strongly recommended.

2) Students should plan on taking MATH 311 (UW-Eau Claire; Differential Equations) or Math 2243 (University of Minnesota; Differential Equations and Linear Algebra) prior to the first semester at University of Minnesota. Differential Equations is a prerequisite for the fluid mechanics course which is to be taken during the first semester at UM.

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