CHEMISTRY, RESEARCH EMPHASIS, COMPREHENSIVE MAJOR

Liberal Arts (Code 100-010)

University Requirements

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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<td>Graduation Requirements for Baccalaureate Degree</td>
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Credit Requirements

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

Academic Concentrations

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

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

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

For students interested in a career as a professional research scientist, this emphasis provides the flexibility to begin advanced study and research as an undergraduate.

### Core Requirements for A.C.S., Liberal Arts and Teaching Chemistry Majors

A minimum of 61 semester credits, including:

<table>
<thead>
<tr>
<th>Chemistry Core</th>
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<tr>
<td>Select one of the following:</td>
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<td>CHEM 103 &amp; CHEM 104</td>
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<td>CHEM 115 Chemical Principles</td>
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### Chemistry, Research Emphasis, Comprehensive Major Requirements

In addition to the chemistry core and required mathematics/physics courses, students must complete the following course work:

- CHEM 352 Fundamentals of Biochemistry 4
- CHEM 433 Physical Chemistry I 8
- CHEM 397 Chemical Literature and Communication 2
- CHEM 497 Independent Study (ACS) 2
- CHEM 420 Advanced Synthesis Laboratory
- CHEM 438 Physical Analysis Laboratory
- CHEM 453 Biochemistry Laboratory

### Electives

Select at least 4 credits from the following:

- CHEM 304 Environmental Chemistry
- CHEM 318 Bioinorganic Chemistry
- CHEM 361 Molecules and Medicine
- CHEM 399 Independent Study - Juniors
- CHEM 401 Inorganic Chemistry
- CHEM 411 Survey of Industrial Chemistry
- CHEM 426 Modern Organic Chemistry
- CHEM 444 Modern Applied Separations and Spectrometry
- CHEM 460 Polymer Chemistry
- CHEM 491 Special Topics
- CHEM 495 Directed Studies
- CHEM 497 Independent Study (ACS)
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<tbody>
<tr>
<td>CHEM 499</td>
<td>Independent Study - Seniors</td>
<td>22</td>
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Total Credits: 22