About the major:
The Chemistry Department offers several majors with varying degrees of specialization designed to meet the needs and interests of a broad range of students. Students develop logic and analytical skills which enables them to solve problems in many fields. The Comprehensive ACS-certified and Research Emphasis majors are ideal for students seeking a focused course of study, and are well suited to those seeking employment in the chemical industry or planning graduate study in chemistry. The Liberal Arts majors provide more flexibility in terms of electives and are appropriate for those seeking employment or planning graduate study in more interdisciplinary fields of chemistry. The Liberal Arts majors are also excellent choices for pre-medicine, pre-dentistry, pre-pharmacy and other pre-professional students. Students are encouraged to seek out an academic advisor and to map out a degree plan soon after deciding on a major.

<table>
<thead>
<tr>
<th>Comprehensive Majors:</th>
<th>Information for exploring students:</th>
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<tbody>
<tr>
<td>Chemistry, A.C.S.</td>
<td>CHEM 103 requires math proficiency at the Math 20 level (minimum).</td>
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<tr>
<td>• General Emphasis</td>
<td>CHEM 115 is the most desirable course for first semester Chemistry majors, but requires solid HS preparation and math proficiency at the Math 109 level (minimum). Offered fall semester only.</td>
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<tr>
<td>• Materials Science Emphasis</td>
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<tr>
<td>• Biochemistry Emphasis</td>
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<tr>
<td>Chemistry, Research Emphasis</td>
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<td>Majors:</td>
<td>Organizations:</td>
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<tr>
<td>Chemistry, Liberal Arts</td>
<td>The American Chemical Society Student Affiliate is an award-winning organization that involves students in social, professional, and service activities, and helps inform fellow students of curricular options and career opportunities.</td>
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<tr>
<td>Chemistry, Teaching</td>
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<td>Minor:</td>
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<td>Chemistry</td>
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Required GE Courses:
Chemistry Majors choose a Bachelor of Science degree within the College of Arts & Sciences. The General Education requirements can be found in the catalog. Please note GE IB and GE II requirements are met through courses required by the major.

Teaching majors have a number of more specific G.E. requirements and should meet early on with their major advisor to map these out in their degree plans. Examples of some of these requirements include,

**Category IA:** CJ 201 (Intro. to Interpersonal Communication), CJ 202 (Fundamentals of Speech) or CJ 205 (Listening)

**Category II:** Biol 180 or Geog 178 (Conservation of the Environment)

**Category III:** A minimum of 11 credits from at least two of the seven subcategories including Psyc 261 (Psychological Development and Classroom Processes) and Pols 110 (American National Politics).

**Category IV:** A minimum of 11 credits from at least four subcategories including one course in Western history or culture, one course in non-Western history or culture, as well as one course each from subcategory A: Fine Arts and subcategory D: one literature course.
**Essential Courses**

For the most flexibility in the major and graduation in four years, students should take the following courses in their first year:

**Semester I**

Chem 115* Chemical Principles (6 cr.) – *Only offered in fall.*

Math 114 Calculus I (4 cr.) should also be completed during the first year.

* Students may also take Chem 103 (General Chemistry I) and Chem 104 (General Chemistry II) during their first year; depending on their high school chemistry and math preparation. However, taking Chem 103/104 instead of Chem 115 reduces flexibility and can cause schedule congestion in later semesters. Additional elective courses should be chosen to carry 15-17 credits per semester.

Math 114 Calculus I (4 cr.) should also be completed during the first year.

**Semester II**

Chem 218 Introduction to Inorganic Chemistry (3 cr.) and/or Chem 213 Quantitative Analysis (4 cr.)

Math 215 Calculus II (4 cr.) or Phys 23 University Physics I (5 cr)

Writ 116 Blugold Seminar in Critical Reading and Writing (5 cr.)

Chemistry courses are mostly sequential. Upper-division courses have chemistry, math and physics prerequisites that must be satisfied during the first two years if possible.

Courses that don’t count in the major:

Chem 100 (Chemistry: Issues & Answers) Chem 127 (Chemistry and Climate) and Chem 150 (Survey of Biochemistry) do not count toward the Chemistry major or minor.

**Admission – Chemistry Teaching Majors**

Chemistry Teaching majors must be admitted into the College of Education and Human Sciences. To be eligible for the pre-program in which a student should be enrolled their sophomore year, (ES 212 – Initial Teaching Experience in Elementary, Middle, and High School Settings), a student must have earned a C or higher in the University Writing requirement, have at least a 2.75 resident and total GPA, earned 14 credits by the time they register for the course and have the Praxis Core or appropriate ACT scores.

Students are required to pass a standardized test—the Praxis Core—preferably in their first year of study. The Praxis core may be waived if a student has a composite ACT score of 23 with a minimum score of 20 on the English, math, and reading subject tests from a single ACT taken within the past 5 years. If a student does not meet all of these ACT criteria, they must take the entire Praxis Core. The passing test scores must be received before students can register for ES 212, Initial Teaching Experience in Elementary, Middle and High School Settings, preferably in their second year of study.

**Helpful Tips:**

**Other course requirements –**

- Students must select elective credits from chemistry courses numbered above 300 to give the minimum total of credits required for their chosen major.

- Students planning for graduate studies in chemistry are encouraged to take additional courses in mathematics (216, 312 or 324) and physics. Additional coursework in scientific and technical writing and a reading knowledge of a foreign language may also be beneficial.

Many students in Chemistry Teaching choose a Physics or Math minor because the major requirements get you started in those fields. Also, the add-on certification in Broadfield Science, plus completion of ES 367 (Teaching Biology), replaces a minor (see Note under Chemistry Teaching Major in the UW-Eau Claire Catalog).

**Contact information:**

Dr. Warren Gallagher
www.uwec.edu/chemistry/index.htm
Phillips Science Hall 453
(715) 836-5388
For sample 4 year plans, go to:
www.uwec.edu/AcadAff/degreeplans/chem.htm

UW-Eau Claire respects individual differences.
This guide complements rather than substitutes for individual advising.

For instructions to declare this major:
www.uwec.edu/Registrar/student/chgofmajor/index.htm