MATHEMATICS, LIBERAL ARTS EMPHASIS, MAJOR

University Requirements

Liberal Arts (Code 180-201)

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 3
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.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LIBERAL EDUCATION CORE REQUIREMENTS</td>
<td>a minimum of 36 credits</td>
</tr>
</tbody>
</table>

Knowledge Goal

Knowledge Outcome 1 (K1): Natural Sciences Two (2) learning experiences
Knowledge Outcome 2 (K2): Social Sciences Two (2) learning experiences

Skills Goal

Skills Outcome 1 (S1): Written and Oral Communication Two (2) learning experiences
One S1 must meet the University Writing Requirement
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
One R1 must satisfy Design for Diversity
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**

**Core Requirements for All Non-Comprehensive Liberal Arts Mathematics Emphases**

A minimum of 36 credits must be earned in any of the emphases included under the standard mathematics major.

**Required:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 114</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 215</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 216</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MATH 316</td>
<td>Introduction to Real Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MATH 324</td>
<td>Linear Algebra and Matrix Theory</td>
<td>4</td>
</tr>
<tr>
<td>MATH 425</td>
<td>Abstract Algebra I</td>
<td>3</td>
</tr>
</tbody>
</table>

**Additional mathematics courses numbered above MATH 305**

**Liberal Arts Emphasis**

Required, select one of the following:

<table>
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<tbody>
<tr>
<td>MATH 317</td>
<td>Introduction to Real Analysis II</td>
</tr>
<tr>
<td>MATH 426</td>
<td>Abstract Algebra II</td>
</tr>
</tbody>
</table>

Three credits required, not counted toward credits in major, from the following:

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<tr>
<td>PHIL 250</td>
<td>Symbolic Logic</td>
</tr>
<tr>
<td>CS 145</td>
<td>Programming for New Programmers</td>
</tr>
<tr>
<td>CS 163</td>
<td>Introduction to Programming in C++</td>
</tr>
</tbody>
</table>

The liberal arts emphasis is the traditional mathematics major, providing preparation for graduate school as well as a broad range of careers in business, government, and industry. Because of the variety of courses available, students are strongly encouraged to consult a mathematics adviser early and frequently while pursuing this emphasis.