

ACTUARIAL SCIENCE, COMPREHENSIVE MAJOR

Liberal Arts (Code 182-001)

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 (http://catalog.uwec.edu/undergraduate/graduation-requirements/#header1)	36

Academic Concentrations (<http://catalog.uwec.edu/undergraduate/graduation-requirements/#header16>)

Grade Point Requirements (<http://catalog.uwec.edu/undergraduate/graduation-requirements/#header14>) ²

Total	2.00 average
Resident	2.00 average
Major	2.00 average
Minor	2.00 average
Certificate	2.00 average

University Residency Requirements (<http://catalog.uwec.edu/undergraduate/graduation-requirements/#header15>)

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 Camp5.

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 Universities 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
Minor	maximum 1 course
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 five learning goals of our liberal education core and the 12 learning outcomes they comprise.

LIBERAL EDUCATION CORE REQUIREMENTS

a minimum of
36 credits

Knowledge Goal

Knowledge Outcome 1 (K1): Natural Sciences (<http://catalog.uwec.edu/undergraduate/attribute-k1/>) Two (2) learning experiences

One experience in laboratory science must be selected from either K1 or K2.

Knowledge Outcome 2 (K2): Social Sciences (<http://catalog.uwec.edu/undergraduate/attribute-k2/>) Two (2) learning experiences

One experience in laboratory science must be selected from either K1 or K2.

Knowledge Outcome 3 (K3): Humanities (<http://catalog.uwec.edu/undergraduate/attribute-k3/>) Two (2) learning experiences

Knowledge Outcome 4 (K4): Fine Arts (<http://catalog.uwec.edu/undergraduate/attribute-k4/>) One (1) learning experience

Skills Goal

Skills Outcome 1 (S1): Written and Oral Communication (<http://catalog.uwec.edu/undergraduate/attribute-S1/>) Two (2) learning experiences

One S1 must meet the University Writing Requirement (<http://catalog.uwec.edu/undergraduate/graduation-requirements/#header10>)

Skills Outcome 2 (S2): Mathematics (<http://catalog.uwec.edu/undergraduate/attribute-S2/>) One (1) learning experience

One S2 to meet the University Mathematics Requirement (<http://catalog.uwec.edu/undergraduate/graduation-requirements/#header11>)

Skills Outcome 3 (S3): Creativity (<http://catalog.uwec.edu/undergraduate/attribute-S3/>) One (1) learning experience

Responsibility Goal

Responsibility Outcome 1 (R1): Equity, Diversity, and Inclusivity (<http://catalog.uwec.edu/undergraduate/attribute-R1/>) Two (2) learning experiences

One R1 must satisfy Design for Diversity (<http://catalog.uwec.edu/undergraduate/attribute-DDIV/#header13>)

Responsibility Outcome 2 (R2): Global Perspectives (<http://catalog.uwec.edu/undergraduate/attribute-R2/>) One (1) learning experience

Responsibility Outcome 3 (R3): Civic and Environmental Issues (<http://catalog.uwec.edu/undergraduate/attribute-R3/>) One (1) learning experience

Integration Goal

Integration Outcome 1 (I1): Integration (<http://catalog.uwec.edu/undergraduate/attribute-I1/>) Two (2) learning experiences

Community-Engaged Learning Goal

Community-Engaged Learning (<http://catalog.uwec.edu/undergraduate/attribute-cel/#header13>)

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 (<http://catalog.uwec.edu/undergraduate/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 (<http://catalog.uwec.edu/undergraduate/arts-sciences/#academicprogramstext>).

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); second language competency at the 102 level. Second language competency may be met in one of two ways: (1) Demonstrate a level of second language competency that qualifies the student to enter the 201-level course in a second language. (2) Earn a grade of at least C (not C-) or a mark of S in a 102-level second language course (or AIS 112 or AIS 122 or SLHS 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 182-001)

This major prepares students for actuarial careers. Actuaries are business professionals who use mathematical models to evaluate the current financial impact of future contingent events. Actuaries work in a variety of settings including insurance companies, public accounting firms, government agencies, banks, and consulting firms.

Entry Requirements: To be admitted to this major students must:

1. Complete at least 15 credits of courses required for the major with a GPA in those courses of at least 3.0.
2. Complete MATH 346 and MATH 350 with a grade of B- or better, or earn a passing grade on the corresponding actuarial professional exam(s)

Code	Title	Credits
A minimum of 64 semester credits, including:		
MATH 114	Calculus I	4
MATH 150	Introduction to the Actuarial Career	1
MATH 215	Calculus II	4
MATH 216	Calculus III	4
MATH 346	Introduction to Probability	4
MATH 347	Mathematical Statistics	4
MATH 350	Introduction to Financial Mathematics	4
MATH 450	Foundations of Actuarial Science	4
MATH 475	Actuarial Foundations of Short-Term Coverages	4
MATH 312	Differential Equations and Linear Algebra	4
or MATH 324	Linear Algebra	
ECON 103	Principles of Microeconomics	3
or ECON 303	Intermediate Microeconomic Theory	
ECON 104	Principles of Macroeconomics	3
or ECON 304	Intermediate Macroeconomic Theory	
MATH 441	Linear Regression Analysis, with Time Series	3-4
or ECON 316	Econometrics	
ACCT 201	Introduction to Accounting	3
IS 240	Information Systems in Business	3
Communications Requirement		3
MATH 260	Actuarial Communications	
OR		
BCOM 206	Business Communication: Writing, Speaking, and Collaborating	
or BCOM 207	Business Communication: Persuasive Messaging, Conversations, and Professional Development	
FIN 320	Principles of Finance	3
DS 140	Basics of Data Analysis with R	2-4
or DS 150	Computing in Python: Fundamentals and Procedural Programming	

MATH 442	Advanced Statistical Modeling	4
or MATH 460	Contingent Payment Analysis	

Program Learning Outcomes

Students completing this program will be expected to meet the following learning outcomes:

- Apply a broad range of perspectives, including numerical, graphical, algebraic, analytical and verbal, to effectively connect and communicate mathematical ideas.
- Use mathematics to model and solve appropriate problems.
- Write mathematical proofs.
- Work independently and collaboratively on mathematical problems.
- Apply probability methods to describe random behavior.
- Use interest theory techniques to value deterministic cash flows.
- Apply both probability and theory of interest concepts to model and solve actuarial problems involving contingent cash flows.