Dual Degree Program in Mathematics and Engineering

Major requirements

Students with a math major who are also interested in engineering are able to receive both a Bachelor of Science (mathematics major) from UW-La Crosse and a Bachelor of Science (engineering major) from UW-Madison. At UW-L, students must complete a minimum of 85 credits, including the general education requirements and specific math and science course in preparation for the engineering program. Students are recommended to include the following courses in their work at UW-L:

- CHM 103 General Chemistry I 5
- CHM 104 General Chemistry II 5
- CS 120 Software Design I 4
- ECO 110 Microeconomics and Public Policy 3
- ECO 120 Global Macroeconomics 3
- ECO 336 Women in the U.S. Economy 3
- MTH 207 Calculus I 5
- MTH 208 Calculus II 4
- MTH 225 Logic and Discrete Mathematics 4
- MTH 245 Probability and Statistics 4
- MTH 309 Linear Algebra with Differential Equations 4
- MTH 310 Calculus III: Multivariate Calculus 4
- MTH 353 Differential Equations 3
- MTH 371 Introduction to Numerical Methods 3
- MTH 480 Studies in Applied Mathematics 3
- or MTH 461 Mathematical Physics 3
- PHY 203 General Physics I 4
- PHY 204 General Physics II 4
- PHY 321 Classical Mechanics 3

Students interested in industrial engineering should add ACC 221 Accounting Principles I (3 cr.). Students should consult with the mathematics department chair for specific course and sequence advising for this agreement.

In order to receive the B.S. degree (mathematics major) from UW-L, students have two options:

1. Complete the selected engineering program at UW-Madison, or
2. Complete applicable math courses at UW-Madison to satisfy the remaining math electives required for mathematics major at UW-L.

In either case the student would then transfer these credits to UW-La Crosse. For the typical student, the remaining credits must include 10-13 credits at the 300 level or above. This transfer of credits and awarding of the B.S. degree (mathematics major) by UW-L can take place as soon as the student demonstrates completion of math courses at UW-Madison to meet UW-L mathematics electives requirements or the completion of the engineering sequence at UW-Madison

Degree requirements

All students must complete the general education, college core, major/ minor, and university degree requirements in order to qualify for a degree. The easiest way to track all of these requirements is to refer to the Advisement Report (AR) found in the Student Information System (WINGS) Student Center. All enrolled students have access to the AR.

- General education (http://catalog.uwlax.edu/undergraduate/generaleducation)
- College core (p. 1)
- Baccalaureate degree requirements (p. 1)

College of Science and Health (SAH) Bachelor of Science core requirements

B.S. and B.A. students graduating from the College of Science and Health are required to take two natural laboratory science courses selected from the general education laboratory science category (GE 05) and from BIO 203, BIO 304, BIO 210, CHM 104, ESC 221, ESC 222, PHY 104, or PHY 204, and they either must take two mathematics courses or one math course and one computer science course from the math/logical systems category of the general education requirements (GE 02). One of the two science courses must be from a department outside of the student’s major department.

Note: Math courses can be pairs, i.e. 150 and 151; MTH/CS majors can use two science courses from same department.

For the Bachelor of Science degree, students must complete a major from the college plus:

- a minor (or a second major) from any college or
- 18 credits at the 300/400 level in courses outside the major department from any college. Internship credits generally do not count toward this college core option.

Baccalaureate degree requirements

Candidates for the Bachelor of Arts or the Bachelor of Science degrees must accomplish the following:

1. Fulfill the general education requirements.
2. Complete at least one ethnic studies (diversity) course.
3. Complete the courses prescribed by the Undergraduate Curriculum Committee for the degree desired in the respective school or college. (No substitutions for graduation may be made in course requirements for a major or minor after the fourth week of the last semester of the senior year.)
4. Earn a minimum of 120 semester credits with at least a 2.00 cumulative GPA. At least 40 credits must be earned in 300/400 level courses. Courses earned at the 100/200 level that transferred to UW-L as 300/400 level courses do not apply to this requirement nor do courses from two-year schools.
5. Complete major and minor requirements with at least a 2.00 GPA in each major and minor (and concentration or emphasis, if selected).
6. A minimum of 30 semester credits in residence at UW-L is required for graduation. (See undergraduate resident requirement (http://catalog.uwlax.edu/undergraduate/academicpolicies/graduation/#undergraduate-residence-requirement).)
7. File a completed “Apply for Graduation” form via the WINGS Student Center as soon as the student has registered for his or her final semester or summer term in residence. December and winter intersession graduates should file by May 1. May and summer graduates should file by December 1.
Grade point average requirements for some programs will be considerably higher than 2.00. Re-entering students may be required to earn credits in excess of the 120 needed for graduation in any curriculum in order to replace credits earned in courses in which the content has changed substantially in recent years. Each case will be judged on its own merit.

No degree will be awarded unless all requirements are fulfilled and recorded within 30 days after the official ending date of each term.