

Dual Degree Program in Statistics and Applied Statistics

Major requirements

The Dual Degree Program in Statistics (B.S.) and Applied Statistics (M.S.) enables a UWL student to earn both a Bachelor of Science degree with a statistics major and a Master of Science degree in applied statistics in five years. Students in this dual degree program should complete the following by the end of their junior year:

Code	Title	Credits
Core		
MTH 207	Calculus I	5
MTH 208	Calculus II	4
STAT 245	Probability and Statistics	4
MTH 308	Linear Algebra with Differential Equations	4
or MTH 309	Linear Algebra	
STAT 345	Statistical Computing	3
STAT 445	Correlation and Regression Analysis	3
STAT 446	Analysis of Variance and Design of Experiments	3
Electives		
Select one course from the following:		3-4
CST 365	Communication in Teams	
ECO 307	Introduction to Econometrics	
ENG 308	Technical Writing	
ENG 309	Writing in the Sciences	
FIN 437	Financial Modeling	
IS 320	Enterprise Systems for Decision Making and Data Analytics	
IS 360	Management of Business Analytics	
MTH 310	Calculus III: Multivariable Calculus	
PSY 420	Advanced Research Methods	
SOC 350	Methods of Social Research II	
Select one course from the following:		3
MTH 371	Numerical Methods	
MTH 407	Real Analysis I	
STAT 448	Operations Research	
Total Credits		32-33

During the senior year, students will complete the Group I courses and two courses from Group II. In the fifth year, students will complete an additional four courses from Group II. Undergraduates may take up to nine graduate credits total while still undergraduate students.

Code	Title	Credits
Group I		
STAT 541	Mathematical Statistics I	3
STAT 542	Mathematical Statistics II	3
Group II		
STAT 543	Categorical Data Analysis	3
STAT 544	Environmental Statistics	3
STAT 547	Nonparametric Statistics	3

STAT 549	Applied Multivariate Statistics	3
STAT 762	Bayesian Statistics	3
STAT 763	Survey of Modern Statistical Software	3
STAT 764	Statistical Learning	3
STAT 766	Biostatistics	3

Graduate project portfolio (6 credits):

Students enrolling in STAT 543, STAT 547, STAT 549, STAT 762, STAT 763, STAT 764, or STAT 766 must enroll at the same time in one credit of STAT 796 per accompanying course. In STAT 796, students complete a project related to the content of the accompanying class. STAT 796 can be taken multiple times in the same term. A total of six credits of STAT 796 are required for completion of the program.

Code	Title	Credits
STAT 796	Graduate Project in Applied Statistics (one credit, repeated six times)	6

Students may be accepted into the dual degree program anytime before they have completed 75 undergraduate credit hours. Applicants for undergraduate admission to UWL may request admission into the dual degree program. In order to remain in the program students must maintain a 2.75 GPA in all undergraduate major courses and 3.00 GPA in all graduate courses. Award of the Bachelor of Science degree will occur upon completion of 120 credits, the statistics major requirements, the CSH college core requirements, and the general university requirements. Students are allowed to take up to nine graduate credits as undergraduate students but must have degree-seeking graduate student status before registering for additional graduate credits (normally in the second semester of the senior year). Award of the Master of Science degree in applied statistics will occur after the completion of the B.S. and the M.S. in applied statistics requirements.

Contact the M.S. in Applied Statistics Program (<https://www.uwlax.edu/grad/statistics/>) Director for application information. See the online graduate catalog for more information about the Applied Statistics Master of Science Program.

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. 2)

College of Science and Health (CSH) 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/or from BIO 203, BIO 304, BIO 210, CHM 104, GEO 221, GEO 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, in addition to all other College of Science and Health core requirements, students from non-exempted programs¹ must complete one of the following options. It is recommended that courses are selected in consultation with students' academic advisor.

1. Complete a second major; or
2. Complete a minor outside the major; or
3. Complete two certificates outside the major with at least 12 combined credits at the 300/400 level; or
4. Complete an individualized option, consisting of 18 credits
 - a. At least 12 credits must be earned at the 300/400 level outside the major department.
 - b. The remaining six credits should come from
 - i. 100 level or higher courses outside the major (General education courses may apply provided they are not being used to fulfill minimum general education requirements.); or
 - ii. 300/400 level courses inside major not being used to fulfill major requirements.
 - c. Internship credits may not count toward the individualized option.

¹ The list of exempted CSH programs is below.

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.
4. Earn a minimum of 120 semester credits with at least a 2.00 cumulative GPA.^{1,2}
5. At least 40 credits must be earned in 300/400 level courses. Transfer courses earned or transferred at the 300/400 level apply to this requirement.
6. Complete major and minor requirements with at least a 2.00 GPA^{1,2} in each major and minor (and concentration or emphasis, if selected).
7. A minimum of 30 semester credits in residence at UWL is required for graduation. (See undergraduate resident requirement (<http://catalog.uwlax.edu/undergraduate/academicpolicies/graduation/#undergraduate-residence-requirement>).)
8. Submit an application for graduation via the "Apply for Graduation" link in 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 apply by May 1. May and summer graduates should apply by December 1.

- 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.
- ² The grade point average recorded at the time the degree is awarded will not be affected by future enrollment.

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

Sample degree plan

Below is a sample degree plan that can be used as a guide to identify courses required to fulfill the major and other requirements needed for degree completion. A student's actual degree plan may differ depending on the course of study selected (second major, minor, etc.). Also, this sample plan assumes readiness for each course and/or major plan, and some courses may not be offered every term. Review the course descriptions or the class timetable (<http://www.uwlax.edu/records/regISTRATION/>) for course offering information.

The sample degree plans represented in this catalog are intended for first-year students entering UWL in the fall term. Students should use the Advisement Report (AR) in WINGS (<https://wings.uwlax.edu>) and work closely with their faculty advisor(s) and college dean's office to ensure declaration and completion of all requirements in a timely manner.

General Education Program

The general education curriculum (Gen Ed) is the common educational experience for all undergraduates at UWL. Sample degree plans include Gen Ed placeholders to ensure completion of the general education requirements. Courses may be rearranged to fit the needs or recommendations of the student's program of study. Gen Ed courses may be taken during winter term (January between the semesters) and summer to reduce the course load during regular terms (fall and spring). Students should consult with their advisor and/or the college academic services director in their college/school for assistance with course and schedule planning. Refer to the general education requirements (<http://catalog.uwlax.edu/undergraduate/generaleducation/>) for more specific details.

At least 40 credits of the 120 credits required must be earned at the 300/400-level.

Note: New students and transfer students with less than 12 credits earned are required to take FYS 100 First-Year Seminar (3 cr.) during one of their first two semesters at UWL.

This sample degree plan does not establish a contractual agreement. It identifies the minimum requirements a student must successfully complete, to qualify for a degree, in a format intended to assist the student in planning their academic career. Actual degree plans may differ.

Year 1		
Fall	Credits Spring	Credits
MTH 207 (Gen Ed Math) ¹	5 MTH 208 (Gen Ed Math) ¹	4
PHY 203 (or other Gen Ed Natural Lab Science)	4 PHY 204 (or other Natural Lab Science)	4
CST 110 (Gen Ed Literacy-Oral)	3 ENG 110 or 112 (Gen Ed Literacy-Written)	3

FYS 100 (Gen Ed First-Year Seminar)	3 Gen Ed Arts	2-3
	Gen Ed Health & Well-Being	3
15		16
Year 2		
Fall	Credits Spring	Credits
STAT 245 ¹	4 STAT 345 ¹	3
MTH 308 or 309 ¹	4 Stats Elective	3-4
Gen Ed Global Studies	3 Gen Ed Self & Society	3
University Elective	3 Gen Ed Minority Cultures	3
University Elective	4 University Elective	4
18		16
Year 3		
Fall	Credits Spring	Credits
STAT 445	3 STAT 446 ¹	3
Gen Ed World History	3 MTH 371, 407, or STAT 448 ^{1,2}	3
Gen Ed Humanistic Studies	3 CSH Core (300/400 not MTH) or Minor ³	3
CSH Core (300/400 not MTH) or Minor ³	3 CSH Core (300/400 not MTH) or Minor ³	3
University Elective	3 University Elective	4
	Apply for "graduate special status" for fall semester	
15		16
Year 4		
Fall	Credits Spring	Credits
STAT 541 (Group I)	3 STAT 542 (Group I)	3
STAT 796	1 STAT 796	1
Group II non thesis graduate course work (see catalog for course listing)	3 Group II non thesis graduate course work (see catalog for course listing)	3
Gen Ed Arts	2-3 CSH Core (300/400 not MTH) or Minor ³	3
University Elective	4 University Elective	3
University Elective at 300/400 level	3 University Elective	3
Apply for "full graduate status" for spring semester		
16		16
Additional year		
Fall	Credits Spring	Credits
Group II non thesis graduate course work (see catalog for course listing)	6 Group II non thesis graduate course work (see catalog for course listing)	6
STAT 796	2 STAT 796	2
8		8
Total Credits: 144		

¹ Should be completed by the end of the junior year.

² MTH 407 is offered in the **fall** whereas MTH 371 is offered in the **spring**. STAT 448 is offered spring odd numbered years. Plan your schedule accordingly.

³ See CSH BS Core Requirements (<http://catalog.uwlax.edu/undergraduate/scienceandhealth/#Core>) for information on completing the individualized option. 300/400 requirements for graduation may be impacted.