

# Geography Major: Geographic Information Science Concentration - Bachelor of Science (BS)

## Major requirements

(All colleges)

38 credits (42 total credits including STAT requirement)

Code	Title	Credits
<b>GIS core</b>		
GEO 101	Earth Environments	4
GEO 110	World Cultural Regions	3
GEO 200	Conservation of Global Environments	3
or GEO 202	Contemporary Global Issues	
or GEO 211	Global Climate Change	
GEO 305	Geographic Information Systems and Science I	3
GEO 401	Capstone Seminar in Geography and Environmental Science	1
GEO 405	Geographic Information System and Science II	3
GEO 415	Remote Sensing of the Environment I	3
GEO 418	Map Design and Geovisualization	3
GEO 445	Remote Sensing of the Environment II <sup>1</sup>	3
or GEO 455	Web Mapping	
or GEO 465	Geospatial Automation	
GEO 485	Geographic Information System and Science III	3
<b>Earth's environmental systems</b>		
Select one course from the following:		3-4
GEO 221	Weather and Climate	
GEO 222	Earth Surface Processes and Landforms	
GEO 422	Meteorology	
GEO 425	Biogeography	
GEO 428	Past Environmental Change	
GEO 430	River Systems	
GEO 460	Environmental Hazards	
<b>Humans and the environment</b>		
Select one course from the following:		3
GEO 307	Power, Space, and Global Change	
GEO 309	Cities: Past, Present, and Future	
GEO 310	Transportation Equity and Sustainable Communities	
GEO 318	The Geography of Latin America and the Caribbean	
GEO 320	Energy, the Environment, and Sustainability	
GEO 321	Sustainable Development and Conservation	
GEO 335	Islamic Asia: Cradle of Civilizations, Geographies of Conflict	
GEO 340	Polar Environments	
GEO 427	Sustainable Water Resource Management	

## Additional electives

Select three credits from the following:		3
GEO 410	Geospatial Field Methods	
GEO 412	Geospatial Applications of Unmanned Aerial Systems	
GEO 445	Remote Sensing of the Environment II (if not taken for GIS Core) <sup>1</sup>	
GEO 450	Internship in Geography and Environmental Science <sup>2,3</sup>	
GEO 455	Web Mapping (if not taken for GIS Core) <sup>1</sup>	
GEO 465	Geospatial Automation (if not taken for GIS Core) <sup>1</sup>	
GEO 470	Special Topics in Geography and Environmental Science <sup>2,4</sup>	
GEO 488	Quantitative Methods in Geography	
GEO 490	Independent Study in Geography and Environmental Science <sup>2,5</sup>	
GEO 495	Seminar in Geography and Environmental Science <sup>2,6</sup>	
GEO 499	Research in Geography and Environmental Science <sup>2,7</sup>	
<b>Total Credits</b>		<b>38</b>

## Required general education course

Code	Title	Credits
STAT 145	Elementary Statistics	4

<sup>1</sup> GEO 445, GEO 455, or GEO 465 may apply to additional electives category if not used in the core.

<sup>2</sup> GEO 450, GEO 470, GEO 490, GEO 495, and GEO 499 must be GIS related.

<sup>3</sup> A maximum of three credits of GEO 450 may apply to the major.

<sup>4</sup> A maximum of three credits of GEO 470 may apply to the major.

<sup>5</sup> A maximum of three credits of GEO 490 may apply to the major.

<sup>6</sup> A maximum of three credits of GEO 495 may apply to the major.

<sup>7</sup> A maximum of three credits of GEO 499 may apply to the major.

## Exit survey requirement

During the student's last semester of enrollment, completion of the Department of Geography and Environmental Science exit survey is required in order to graduate.

## 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. 2)
- 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 programs<sup>1</sup> 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.

<sup>1</sup> 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.<sup>1,2</sup>
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<sup>1, 2</sup> 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.

<sup>1</sup> 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.

<sup>2</sup> 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.*

<b>Year 1</b>		
<b>Fall</b>	<b>Credits Spring</b>	<b>Credits</b>
GEO 101 (Gen Ed Natural Lab Science)	4 GEO 200, 202, or 211	3
GEO 110 (Gen Ed Global Studies)	3 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 STAT 145 (Gen Ed Math)	4
Gen Ed World Hist	3 Gen Ed Arts	2-3
	<b>15</b>	<b>15</b>
<b>Year 2</b>		
<b>Fall</b>	<b>Credits Spring</b>	<b>Credits</b>
GEO 305	3 GEO 405	3
Earth's Environmental Systems (see list)	3-4 Gen Ed Humanistic Studies	3
Gen Ed Minority Cultures	3 Gen Ed Math (CSH Core)	3-4
Gen Ed Health & Well-Being	3 Gen Ed Natural Lab Science (not GEO/ESC)	4
University Elective	3 University Elective	1
	<b>15</b>	<b>14</b>
<b>Year 3</b>		
<b>Fall</b>	<b>Credits Spring</b>	<b>Credits</b>
GEO 415 (Writing Emphasis)	3 GEO 445, 455, or 465	3
GEO 418	3 GEO 485	3
Gen Ed Self & Society	3 CSH Core (300/400 not GEO) or Minor	3
University Elective	3 University 300/400 Elective	3
University Elective	3 University Elective	3
	<b>15</b>	<b>15</b>
<b>Year 4</b>		
<b>Fall</b>	<b>Credits Spring</b>	<b>Credits</b>
GEO 401	1 Humans and the Environment (see list) (Writing Emphasis)	3
CSH Core (300/400 not GEO) or Minor	3 Geography Electives (see list) (Writing Emphasis)	3
CSH Core (300/400 not GEO) or Minor	3 CSH Core (300/400 not GEO) or Minor	3
CSH Core or Minor <sup>1</sup>	3 CSH Core or Minor <sup>1</sup>	3
University 300/400 Elective	3 University 300/400 Elective	3
University Elective	3 Exit Survey Requirement <sup>2</sup>	
	<b>16</b>	<b>15</b>
<b>Total Credits: 120</b>		

<sup>1</sup> 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.

<sup>2</sup> During the student's last semester of enrollment, completion of the Department of Geography and Environmental Science exit survey is required in order to graduate.