# Geography Major: Environmental Science Concentration Bachelor of Science (BS) 

## Major requirements

| (All colleges) |  |  |
| :---: | :---: | :---: |
| 43 credits (51-52 total credits including BIO/CHM and STAT requirements) |  |  |
| Code | Title | Credits |
| Core |  |  |
| GEO 101 | Earth Environments |  |
| 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 221 | Weather and Climate |  |
| GEO 222 | Earth Surface Processes and Landforms |  |
| 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 |

## Earth's environmental systems

Select two courses from the following
GEO 422 Meteorology
GEO 425 Biogeography
GEO 428 Past Environmental Change
GEO 430 River Systems
GEO 460 Environmental Hazards
Geospatial techniques
Select two courses from the following:
GEO 410 Geospatial Field Methods
GEO 412 Geospatial Applications of Unmanned Aerial Systems
GEO 415 Remote Sensing of the Environment I
GEO 418 Map Design and Geovisualization
GEO 445 Remote Sensing of the Environment II
GEO 455 Web Mapping
GEO 465 Geospatial Automation
GEO 485 Geographic Information System and Science III
GEO 488 Quantitative Methods in Geography

## Humans and the environment

Select one course from the following:

| GEO 307 | Power, Space, and Global Change |
| :--- | :--- |
| GEO 309 | Cities: Past, Present, and Future |
| GEO 310 | Transportation Equity and Sustainable <br> Communities |

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

Select three credits at the 300/400-level from a category above OR three credits from the following:

| GEO 450 | Internship in Geography and Environmental <br> Science |
| :---: | :--- |
| GEO 470 | Special Topics in Geography and Environmental <br> Science ${ }^{2}$ |
| GEO 490 | Independent Study in Geography and <br> Environmental Science ${ }^{3}$ |
| GEO 495 | Seminar in Geography and Environmental Science <br> 4 |
| GEO 499 | Research in Geography and Environmental <br> Science ${ }^{5}$ |

Total Credits

## Required general education courses

| Code | Title | Credits |
| :--- | :--- | ---: |
| STAT 145 | Elementary Statistics | 4 |
| Complete one of the following: | $4-5$ |  |
| BIO 100 | Biology for the Informed Citizen |  |
| BIO 105 | General Biology |  |
| CHM 103 | General Chemistry I |  |

Total Credits
${ }_{2}^{1}$ A maximum of three credits of GEO 450 may apply to the major.
${ }^{2}$ A maximum of three credits of GEO 470 may apply to the major.
${ }^{3}$ A maximum of three credits of GEO 490 may apply to the major.
${ }_{5}^{4}$ A maximum of three credits of GEO 495 may apply to the major
${ }^{5}$ 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 nonexempted programs ${ }^{1}$ 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:

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 $2.00 \mathrm{GPA}^{1,}$
${ }^{2}$ 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 |
| GEO 101 (Gen Ed Lab Science) | 4 GEO 200 | 3 |
| GEO 110 (Gen Ed Global Studies) | 3 MTH 150 (Gen Ed Math/ Logical Systems) | 4 |
| ENG 110 or 112 (Gen Ed Literacy-Written) | 3 CST 110 (Gen Ed Literacy-Oral) | 3 |
| FYS 100 (Gen Ed First-Year Seminar) | 3 Gen Ed Arts | 2-3 |
| Gen Ed Arts | 2-3 Gen Ed Minority Cultures | 3 |
|  | 15 | 15 |

Year 2
\(\left.$$
\begin{array}{lcr}\text { Fall } & \text { Credits Spring } & \text { Credits } \\
\text { GEO 221 } & 4 \text { GEO 222 } & 4 \\
\text { STAT 145 (Gen Ed Math/ } & 4 \text { Humans and the Environment } & 3 \\
\text { Logical Systems) } & \text { (see list) } & \\
\text { Gen Ed World History } & \begin{array}{c}3 \text { CHM 103, BIO 100, or BIO 105 } \\
\text { (Gen Ed Natural Lab Science) }\end{array}
$$ \& 4-5 <br>
Gen Ed Self \& Society \& 3 Gen Ed Health \& Well-Being \& 3 <br>

\& \& University elective\end{array}\right]\)| 1 |
| :--- |

Year 3

| Fall | Credits Spring | Credits |
| :---: | :---: | :---: |
| GEO 305 | 3 GEO 405 | 3 |
| Earth's Environmental Systems (see list) | 3 Earth's Environmental Systems (see list) | 3 |
| CSH Core (300/400 not GEO) or Minor | 3 Gen Ed Humanistic Studies | 3 |
| University 300/400 Elective | $\begin{aligned} & 3 \text { CSH Core ( } 300 / 400 \text { not GEO) } \\ & \text { or Minor } \end{aligned}$ | 3 |
| University Elective | 3 University 300/400 Elective | 3 |
|  | 15 | 15 |
| Year 4 |  |  |
| Fall | Credits Spring | Credits |
| GEO 401 | 1 Geography Elective 300/400 (see list) | 3 |
| Geospatial Techniques 300/400 (see list) (Writing Emphasis) | 3 Geospatial Techniques 300/400 (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 ${ }^{1}$ | 3 CSH Core or Minor ${ }^{1}$ | 3 |
| University 300/400 Elective | 3 University Elective | 3 |
| University 300/400 Elective | 3 Exit Survey Requirement ${ }^{2}$ |  |
|  | 16 | 15 |

Total Credits: 120
1 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.
2 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.

