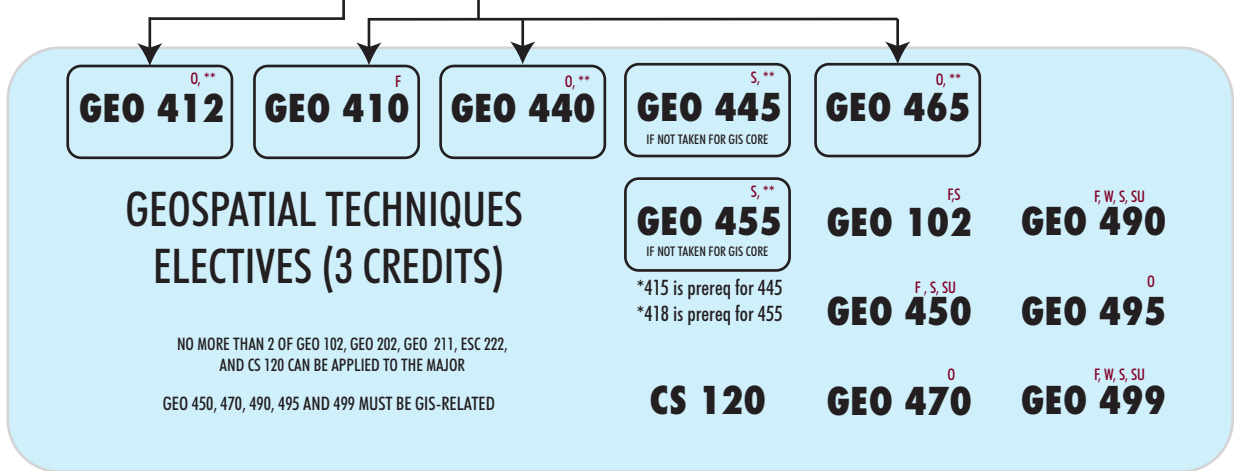
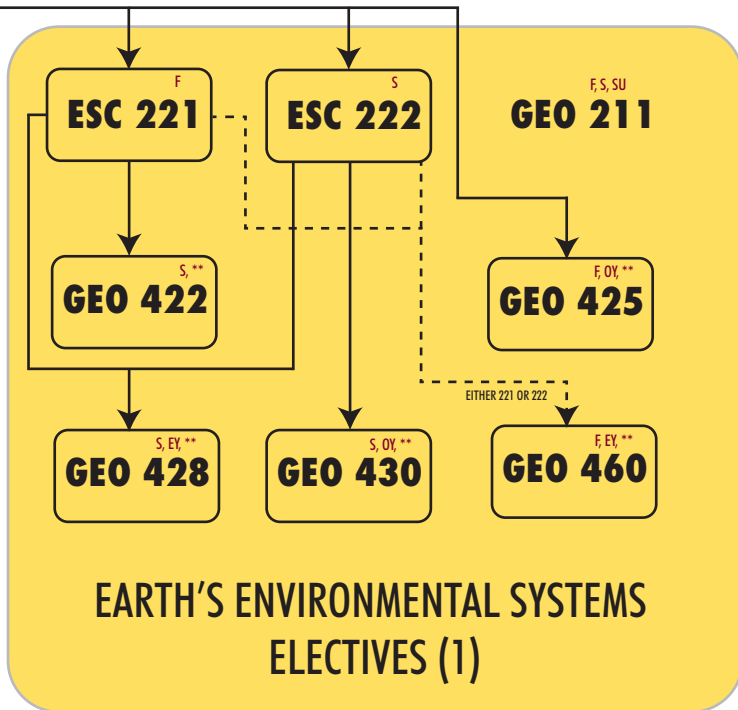
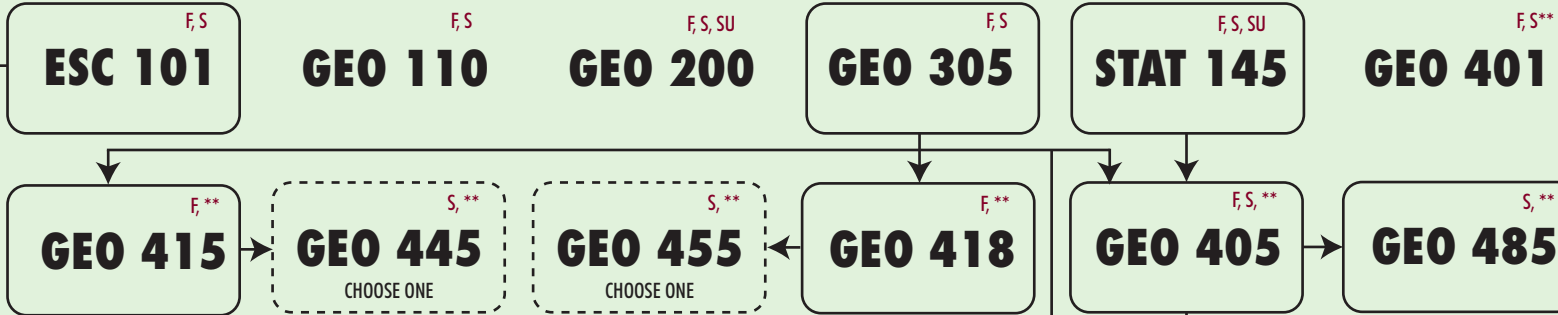


UW-LA CROSSE GEOGRAPHY & EARTH SCIENCE GEOGRAPHIC INFORMATION SCIENCE CONCENTRATION (B.S./B.A.)

CORE REQUIREMENTS:



GEO
EXIT
SURVEY



PREREQUISITES: **LEGEND:**
 → REQUIRED
 - - - - - MULTIPLE PREREQ OPTIONS
 A = ANNUALLY S = SPRING SU = SUMMER
 O = OCCASIONALLY AY = ALTERNATE YEARS EY = EVEN NUMBERED YEARS
 F = FALL OY = ODD NUMBERED YEARS ** = JR/SR STANDING

Geography Major: Geographic Information Science (GIS) Concentration (B.S./B.A.)

42 CREDITS

Core Requirements:

| Name | Credits | Description | Prerequisite | Offered |
|---------------|---------|--|-----------------------|----------|
| ESC 101 | 4 | Earth Environments | - | F, S |
| GEO 110 | 3 | World Cultural Regions | - | F, S |
| GEO 200 | 3 | Conservation of Global Environments | - | F, S, Su |
| GEO 305 | 3 | Geographic Information Systems and Science I | - | F, S |
| STAT 145 | 4 | Elementary Statistics | - | |
| GEO 401 | 1 | Focus on Geography: A Capstone Course | Senior Standing | F, S |
| GEO 405 | 3 | Geographic Information System and Science II | GEO 405; STAT 145 | F, S |
| GEO 415 | 3 | Remote Sensing of the Environment I | GEO 305 | F |
| GEO 418 | 3 | Map Design and Geovisualization | GEO 305 | F |
| GEO 445 | 3 | Remote Sensing of the Environment II OR | GEO 415 (for GEO 445) | S |
| OR 455 | 3 | Web Mapping | GEO 418 (for GEO 455) | S |
| GEO 485 | 3 | Geographic Information System and Science III | GEO 405 | S |

Earth's Environmental Systems Electives (Choose 1 Course)

| Name | Credits | Description | Prerequisite | Offered |
|----------------------|---------|---------------------------------------|---------------------|----------|
| ¹ GEO 211 | 3 | Global Climate Change | - | F, S, su |
| ¹ ESC 221 | 4 | Weather and Climate | ESC 101 | F |
| ¹ ESC 222 | 4 | Earth Surface Processes and Landforms | ESC 101 | S |
| GEO 422 | 3 | Meteorology | ESC 221 | S |
| GEO 425 | 3 | Biogeography | ESC 101 | F-Odd |
| GEO 428 | 3 | Past Environmental Change | ESC 221 and ESC 222 | S-Even |
| GEO 430 | 3 | River Systems | ESC 222 | S-Odd |
| GEO 460 | 3 | Environmental Hazards | ESC 221 or ESC 222 | F-Even |

Geospatial Techniques Electives (Choose 3 credits from the following)

| Name | Credits | Description | Prerequisite | Offered |
|----------------------|---------|---|----------------------------------|-------------|
| ¹ GEO 102 | 3 | Maps and Society | - | F, S |
| ¹ CS 120 | 4 | Software Design I | MTH 151/160/175 or placement | |
| GEO 410 | 3 | Geospatial Field Methods | GEO 405 or concurrent enrollment | F |
| GEO 412 | 3 | Geospatial Applications of Unmanned Aerial Systems | GEO 305 | O |
| ² GEO 450 | 1-12 | Geography Internship | - | F, S, Su |
| GEO 440 | 3 | Geographic Interpretation of Aerial Photographs | GEO 405 | O |
| GEO 445 | 3 | Remote Sensing of the Environment II (<i>if not GIS core</i>) | GEO 415 | S |
| GEO 455 | 3 | Web Mapping (<i>if not GIS core</i>) | GEO 418 | S |
| GEO 465 | 3 | Scripting in GIS | GEO 405 | O |
| ² GEO 470 | 1-3 | Special Topics in Geography/Earth Science | - | O |
| ² GEO 490 | 1-3 | Independent Study | - | F, W, S, Su |
| ² GEO 495 | 1-3 | Seminar in Geography/Earth Science | - | O |
| ² GEO 499 | 1-3 | Undergraduate Research | - | F, W, S, Su |

Humans and the Environment Electives (Choose 1 Course)

| Name | Credits | Description | Prerequisite | Offered |
|----------------------|---------|--|--------------|---------|
| ¹ GEO 202 | 3 | Contemporary Global Issues | - | F, S |
| GEO 307 | 3 | Power, Space, and Global Change | - | F |
| GEO 309 | 3 | Urban Geography | - | F-Odd |
| GEO 310 | 3 | Transportation Geography | - | F-Even |
| GEO 318 | 3 | The Geography of Latin America and the Caribbean | - | S-Even |
| GEO 321 | 3 | Sustainable Development and Conservation | - | S |
| GEO 335 | 3 | Islamic Asia: Cradle of Civilizations, Geographies of Conflict | - | S-Odd |
| GEO 340 | 3 | Earth's Polar Regions | - | F-Even |
| GEO 427 | 3 | Sustainable Water Resource Management | - | F-Odd |

¹ No more than 2 courses from GEO 102, GEO 202, GEO 211, ESC 221, ESC 222, or CS 120 can be applied to the major.

² GEO 450, GEO 470, GEO 490, GEO 495, and/or GEO 499 must be GIS related.

*A maximum of 3 credits of GEO 450, GEO 470, GEO 490, GEO 495, and/or GEO 499 may apply to the major.

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

* Offered Codes: F=Fall; W=Winter; S=Spring; Su=Summer; O=Occasionally; F-Odd=Fall, Odd Years; F-Even=Fall, Even Years; S-Odd = Spring, Odd Years; S-Even, Spring, Even Years; A=Annually; AY=Alternate Years.