The Departments of Biological Sciences and Geography offer this interdisciplinary, skill-based program designed to provide students with an understanding of how environmental information is collected, what is being reported, and how to analyze what is reported. It provides training in basic concepts at all levels of ecology, from populations to landscapes and the interaction between the physical and biotic environment using the cutting edge technology of geographic information system (GIS) software.

The program requires completion of 18 sh, including 12 sh of core courses. Students may select two elective courses (6 sh) to include one from Biology and one from Geography.

Career Opportunities
In the environmental field today, there are few jobs beyond the technician level that do not require a background in Geographic Information Systems (GIS). The Illinois Department of Natural Resources, Illinois Environmental Protection Agency, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service all require their mid-level employees to be familiar with the use and application of GIS to their particular missions. Potential career opportunities include the following:

- Resource development
- Environmental consulting
- Landscaping
- Working in state and federal agencies
- Urban planning
- Industrial or urban facility and site development
- Agricultural management

For Gainful Employment Disclosure, visit wiu.edu/grad/gainfulemployment.

Facilities
The Department of Geography houses the Western Illinois University GIS Center on the third floor of Tillman Hall. The center is responsible for compiling, managing, and storing GIS data layers. Other facilities include a Remote Sensing/GIS lab with over 20 computers that are fully networked and use ERDAS’ Imagine software. Other software includes ESRI GIS, such as ArcGIS and ArcView; a Meteorology lab featuring a fully-equipped, operational weather lab and forecast office with direct access to observational weather data, radar imagery, and weather maps and charts; and a new instructional lab with 32 computers used for both GIS and meteorology-related instruction. Additionally, the department has two wired electronic classrooms plus wireless connectivity throughout Tillman Hall.

Admission Requirements
Students applying for the certificate must have a cumulative undergraduate GPA of 2.75 or higher and an undergraduate degree in Biology, Geography, or a related field. Non-degree students seeking the certificate only must meet the admission requirements for the Graduate School; students seeking both a degree and the certificate must meet the admission requirements for their degree program.

Academic Requirements
Students must have a cumulative 3.0 GPA for all coursework required for completion of the certificate. A post-baccalaureate certificate will not be awarded to a student who earns more than 3 semester hours (sh) of C, D, F, or U grades in the graduate-level courses required for the completion of the certificate. No course for which a student has received a grade of D or less may be used to satisfy certificate requirements. Transfer work or course substitutions are not allowed in the certificate programs. The work required for the certificate must be completed within three calendar years.

If approved by the specific academic department, courses taken to satisfy certificate requirements may be used to satisfy post-baccalaureate degree requirements at the University.
The Alice L. Kibbe Life Science Station is a biological reserve of more than 1,600 acres of islands, bluffs, and upland areas in the Mississippi River Valley near Warsaw, IL. Its aquatic habitats, forests, and prairies serve as an outdoor classroom for field studies and are used in environmental research. The Cedar Glen Eagle Roost, which is adjacent to the field station, is considered one of the Midwest’s most outstanding natural areas and is nationally known as a major winter roosting area for bald eagles. The field station maintains research sites and equipment for sampling on the Mississippi River.

Distinctive Features

- Courses focus on the application of the GIS to analyze and interpret ecological data.
- The program integrates training in GIS with training in the ecological techniques used to collect environmental data used interpretively by GIS.
- Students will be better qualified to use ecological information and GIS technology for effective planning land use and restoration. Examples might include floodplain and mine land reclamation, wetland and drainage restoration, energy development (e.g., wind farms), natural disaster recovery programs in both urban and ecological preserves, and natural lands management.

Contact Information

For admissions process and general program information, contact the School of Graduate Studies, Western Illinois University, 1 University Circle, Macomb, IL 61455, (309) 298-1806, (877) WIU GRAD toll-free, Grad-Office@wiu.edu, wiu.edu/grad.

For specific program questions, contact Dr. Charles Lydeard, Department Chairperson, Department of Biological Sciences, Western Illinois University, 1 University Circle, Macomb, IL 61455, (309) 298-1546, C-Lydeard@wiu.edu, wiu.edu/biology or Dr. Samuel Thompson, Department Chairperson, Department of Geography, Western Illinois University, 1 University Circle, Macomb, IL 61455, (309) 298-1648, geography@wiu.edu, wiu.edu/geography.

“While attending Western Illinois University, I have had the opportunity to experience how GIS works in an academic and professional setting. I feel that the faculty and staff have always been approachable and accommodating. There are many jobs in the GIS field, and I believe that the skills I have learned at WIU will help me succeed in the real world.”

– Alex Flores, Current Student

Master of Geography, Environmental GIS Certificate

WIU.EDU/GEOGRAPHY

Alex Flores