

# SUCCESS by DEGREES

GEOGRAPHIC INFORMATION SYSTEMS (GIS) IS A RAPIDLY GROWING PROFESSIONAL FIELD THAT USES COMPUTERS AND SPATIAL INFORMATION TO ADDRESS COMPLEX SOCIAL AND ENVIRONMENTAL ISSUES. THESE ISSUES INCLUDE IDENTIFYING LOCATIONS FOR ROADS, FERTILIZER NEEDS IN FARM FIELDS, DEMOGRAPHIC DISTRIBUTIONS FOR TARGETED MARKETING, AND MANY OTHERS.

CERTIFICATE OF UNDERGRADUATE STUDY IN GEOGRAPHIC INFORMATION SYSTEMS



**NIU**

NORTHERN ILLINOIS UNIVERSITY

Students enrolled in GIS certificate courses will learn the different forms of spatial data and their essential properties; principles and methods for collecting spatial data; principles of map design and effective graphic communication; and ways spatial data can be used to investigate complex problems. Graduates holding a Bachelor of General Studies degree with a GIS certificate benefit from cross disciplinary course work that promotes the critical thinking and communication skills needed for a successful career in GIS.

### Individuals earning a certificate of undergraduate study in GIS can go on to work in many exciting fields including:

- Urban Planning
- Applied Environmental Science
- Agriculture
- Marketing
- Cartography
- Public Safety
- Homeland Security

### ACADEMIC REQUIREMENTS

Students seeking a Bachelor of General Studies in Liberal Arts and Sciences degree with a certificate in GIS must complete the requirements for the Bachelor of General Studies degree incorporating the following courses:

- Maps and Mapping (GEOG 256)
- Introduction to GIS (GEOG 359)
- GIS (GEOG 459)

In addition, students must complete six hours of elective course work from the following with the consent of an adviser:

- Internship: GIS (GEOG 391E)
- Land-Use Planning (GEOG 455)
- Remotes Sensing of the Environment (GEOG 460)
- Location Analysis (GEOG 464) or Business Applications of GIS (OMIS 379)
- Workshop in Cartography/ GIS (GEOG 467)
- Undergraduate Research in Geography (GEOG 491)
- Computer Methods and Modeling (GEOG 493)
- Seminar in Current Problems: Methodology and Techniques (GEOG 498M)

### CONTACT

**Interested in learning more?** Visit [www.niu.edu/geog](http://www.niu.edu/geog) for course descriptions and scheduling information.

**Have a specific question about the Certificate of Undergraduate Study in GIS?** Contact Dr. Andrew Krmeneč, program adviser, at (815) 753-6826 or [akrmeneč@niu.edu](mailto:akrmeneč@niu.edu)



For additional information, consult the NIU Undergraduate Catalog at [www.reg.niu.edu/ugcat/](http://www.reg.niu.edu/ugcat/) or call (800) 892-3050.