GEOGRAPHIC INFORMATION SCIENCE - GRADUATE CERTIFICATE

College of Sciences and Humanities
Department of Geography
www.kent.edu/geography

About This Program

The Geographic Information Science graduate certificate prepares graduates to work in the geospatial technology industry, as well as in allied industries that rely on employees who are highly trained in this technology. Prospective employers are private and public sector entities that need to manage large systems and big geospatial data, map and analyze health data, and map and analyze environmental conditions and resources. Examples of such employers are local, state and federal government agencies; business that focus on logistics, marketing and engineering; and non-profit agencies in health services and environmental management.

Contact Information

- **Emariana Widner** | ewidner@kent.edu | 330-672-3226
- Connect with an Admissions Counselor

Program Delivery

- **Delivery:**
  - Fully online

Applications to the Geographic Information Science graduate certificate are not being accepted at this time.

For more information about graduate admissions, visit the graduate admission website. For more information on international admissions, visit the international admission website.

Admission Requirements

Applications to the Geographic Information Science graduate certificate are not being accepted at this time.

- Bachelor's degree from an accredited college or university in geography or a related field[1]
- Minimum 2.750 undergraduate GPA on a 4.000-point scale
- Official transcript(s)
- Goal statement
- Two letters of recommendation
- English language proficiency - all international students must provide proof of English language proficiency (unless they meet specific exceptions to waive)) by earning one of the following:[2]
- Minimum 79 TOEFL iBT score
- Minimum 6.5 IELTS score
- Minimum 58 PTE score
- Minimum 110 DET score

[1] Requirement that undergraduate degree be in geography or related field may be waived with evidence of professional experience using geospatial technologies or alternative evidence of ability to excel in a geographic information science graduate program.

[2] International applicants who do not meet the above test scores will not be considered for admission.

Application Deadlines

- **Fall Semester**
  - Rolling admissions
- **Spring Semester**
  - Rolling admissions

Program Requirements

Certificate Requirements

Code	Title	Credit Hours
Certificate Requirements		
GEOG 59071	FUNDAMENTALS OF GEOGRAPHIC INFORMATION SCIENCE I	3
GEOG 59081	FUNDAMENTALS OF GEOGRAPHIC INFORMATION SCIENCE II	3
GEOG 69164	CARTOGRAPHIC DESIGN	3
Certificate Electives, choose from the following:		6
CS 61002	ALGORITHMS AND PROGRAMMING I	
GEOG 69004	QUANTITATIVE METHODS IN GEOGRAPHY	
GEOG 59072	GEOGRAPHIC INFORMATION SCIENCE AND HEALTH	
GEOG 59075	GEOGRAPHIC INFORMATION SCIENCE: APPLICATIONS FOR SOCIAL PROBLEMS	
GEOG 59076	SPATIAL PROGRAMMING	
GEOG 59078	GEOGRAPHIC INFORMATION SCIENCE AND ENVIRONMENTAL HAZARDS	
GEOG 69004	QUANTITATIVE METHODS IN GEOGRAPHY	
GEOG 69007	SPATIOTEMPORAL ANALYTICS	
GEOG 69073	GEOGRAPHIC INFORMATION SCIENCE: GLOBAL HEALTH	
GEOG 69074	GEOGRAPHIC INFORMATION SCIENCE: SPATIAL ANALYSIS FOR HEALTH GEOGRAPHY	
GEOG 69079	ENVIRONMENTAL GEOGRAPHIC INFORMATION SCIENCE	
GEOG 69082	CYBERGIS	
GEOG 69083	GEODATABASES	
GEOG 69231	ENVIRONMENTAL REMOTE SENSING	
Minimum Total Credit Hours:		**15**

Graduation Requirements

Minimum Certificate GPA	Minimum Overall GPA
-	3.000

Program Learning Outcomes

Graduates of this program will be able to:

1. Apply standard mapping technique and spatial analysis procedures to geographic and environmental data.

2. Describe the various forms and methods of geospatial data dissemination.
3. Analyze and interpret the common statistics methods used in geographic research and applications.
4. Execute techniques for processing, managing, visualizing and analyzing environmental data using GIS tools.
5. Design and develop geodatabases by integrating essential GIS concepts and technical skills.
6. Evaluate principles of map design and apply best practices for cartographic construction.
7. Explain foundational concepts and techniques for environmental remote sensing.