

# GEOGRAPHIC INFORMATION SCIENCE - M.G.I.SC.

College of Sciences and Humanities  
 Department of Geography  
[www.kent.edu/geography](http://www.kent.edu/geography)

## About This Program

The Geographic Information Science M.G.I.Sc. degree prepares you for a career at the forefront of geospatial technology. With a blend of technical knowledge and practical experience, you will learn to analyze and manage geospatial data and make informed decisions. Read more...

## Contact Information

- **Emariana Widner** | [ewidner@kent.edu](mailto:ewidner@kent.edu) | 330-672-3226
- Connect with an Admissions Counselor

## Program Delivery

- **Delivery:**
  - Fully online

*Applications to the M.G.I.Sc. degree 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 M.G.I.Sc. degree are not being accepted at this time.*

- Bachelor's degree from an accredited college or university in geography or a related field<sup>1</sup>
- 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:<sup>2</sup>
  - Minimum 79 TOEFL iBT score
  - Minimum 6.5 IELTS score
  - Minimum 58 PTE score
  - Minimum 110 DET score

<sup>1</sup> Requirement that the undergraduate degree must be in geography or related field may be waved with evidence of professional experience using geospatial technologies or alternative evidence of ability to excel in a geographic information science graduate program.

<sup>2</sup> International applicants who do not meet the above test scores will not be considered for admission.

## Program Requirements

### Major Requirements

Code	Title	Credit Hours
<b>Major Requirements</b>		
GEOG 59071	FUNDAMENTALS OF GEOGRAPHIC INFORMATION SCIENCE I	3
GEOG 59081	FUNDAMENTALS OF GEOGRAPHIC INFORMATION SCIENCE II	3
GEOG 69164	CARTOGRAPHIC DESIGN	3
GEOG 69231	ENVIRONMENTAL REMOTE SENSING	3
Major Electives, choose from the following:		12
CS 61002	ALGORITHMS AND PROGRAMMING I	
CS 61003	ALGORITHMS AND PROGRAMMING II	
EMAT 64210	DATA SCIENCE	
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	
<b>Culminating Requirement</b>		
GEOG 69392	PRACTICUM IN GEOGRAPHIC INFORMATION SCIENCE <sup>1</sup>	6

**Minimum Total Credit Hours: 30**

<sup>1</sup> As the capstone to the program, students will complete a practicum that is designed to provide practical experience in the application of M.G.I.Sc. degree course content in real-world professional settings. Students will select a professional project in consultation with their employer and program faculty and then will design, implement and report on their activities in a culminating professional paper.

## Graduation Requirements

Minimum Major GPA	Minimum Overall GPA
-	3.000

- No more than one-half of a graduate student's coursework may be taken in 50000-level courses.
- Grades below C are not counted toward completion of requirements for the degree.

## Program Learning Outcomes

Graduates of this program will be able to:

1. Collect, edit, integrate, manage and analyze geospatial data.
2. Demonstrate skills and working knowledge of commercial and open-source GIS application suites and utilities.
3. Identify, explain and analyze spatial patterns, relationships and processes.
4. Apply cartographic principles and techniques to create quality maps.
5. Apply critical and spatial thinking to solve geospatial problems with respect to theories, principles and practices of geographic information science and fields in the degree concentration areas.
6. Demonstrate good communication skills and ability to work in a team environment.

## Full Description

The Master of Geographic Information Science degree provides students with skills that extend beyond simply understanding software features or capabilities. Students develop a more robust understanding of how GIS functions across different sectors and have a positive impact on some of the greatest global challenges today, including climate change, transportation, and public health. Students have the opportunity to design and manage geographic information technologies to develop and improve the tools and systems people rely on every day

Graduates of the program are prepared for analytical and managerial positions that utilize geospatial technologies. Those positions can be found in a number of sectors, ranging from real estate and healthcare to disaster relief and finance.