GEOGRAPHIC INFORMATION SCIENCE - M.GISC.

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

Contact Information
- Program Coordinator:
  Andrew Scholl
  ascholl1@kent.edu
  330-672-7669
- Chat with an Admissions Counselor

Fully Offered
- Online

Admission Terms
- Fall
- Spring
- Summer

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 GISc 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.

Admission Requirements
- Bachelor’s degree from an accredited college or university in geography or a related field for unconditional admission
- Minimum 3.000 undergraduate GPA on a 4.000 point scale for unconditional admission
- 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) by earning one of the following:
  - Minimum 550 TOEFL PBT score (paper-based version)
  - Minimum 79 TOEFL IBT score (Internet-based version)
  - Minimum 77 MELAB score
  - Minimum 6.5 IELTS score
  - Minimum 58 PTE score
  - Minimum 110 Duolingo English Test score

For more information about graduate admissions, please visit the Graduate Studies admission website. For more information on international admission, visit the Office of Global Education’s admission website.

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.

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.

Program Requirements

Major Requirements

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<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>GEOG 59071</td>
<td>FUNDAMENTALS OF GEOGRAPHIC INFORMATION SCIENCE I</td>
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<td>GEOG 59081</td>
<td>FUNDAMENTALS OF GEOGRAPHIC INFORMATION SCIENCE II</td>
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<td>GEOG 69164</td>
<td>CARTOGRAPHIC DESIGN</td>
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<td>GEOG 69231</td>
<td>ENVIRONMENTAL REMOTE SENSING</td>
<td>3</td>
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<td>GEOG 69392</td>
<td>PRACTICUM IN GEOGRAPHIC INFORMATION SCIENCE 1</td>
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Major Electives, choose from the following: 12

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<tr>
<td>CS 61002</td>
<td>ALGORITHMS AND PROGRAMMING I</td>
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<tr>
<td>CS 61003</td>
<td>ALGORITHMS AND PROGRAMMING II</td>
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<td>DATA SCIENCE</td>
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<td>GEOG 59072</td>
<td>GEOGRAPHIC INFORMATION SCIENCE AND HEALTH</td>
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<tr>
<td>GEOG 59075</td>
<td>GEOGRAPHIC INFORMATION SCIENCE: APPLICATIONS FOR SOCIAL PROBLEMS</td>
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<tr>
<td>GEOG 59076</td>
<td>SPATIAL PROGRAMMING</td>
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<td>GEOG 59078</td>
<td>GEOGRAPHIC INFORMATION SCIENCE AND ENVIRONMENTAL HAZARDS</td>
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<td>GEOG 69004</td>
<td>QUANTITATIVE METHODS IN GEOGRAPHY</td>
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<td>GEOG 69007</td>
<td>SPATIOTEMPORAL ANALYTICS</td>
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<td>GEOG 69073</td>
<td>GEOGRAPHIC INFORMATION SCIENCE: GLOBAL HEALTH</td>
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<tr>
<td>GEOG 69074</td>
<td>GEOGRAPHIC INFORMATION SCIENCE: SPATIAL ANALYSIS FOR HEALTH GEOGRAPHY</td>
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GEOG 69079  ENVIRONMENTAL GEOGRAPHIC INFORMATION SCIENCE
GEOG 69082  CYBERGIS
GEOG 69083  GEODATABASES

Minimum Total Credit Hours: 30

As the capstone to the program, students will complete a practicum that is designed to provide practical experience in the application of MGisc 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.