GEOGRAPHIC INFORMATION SCIENCE - M.GISC

College of Arts and Sciences
Department of Geography
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Kent Campus
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Description
The Master of Geographic Information Science degree prepares graduates for analytical and managerial positions that utilize geospatial technologies.

Fully Offered At:
• Online

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

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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<thead>
<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>
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<td>GEOG 69392</td>
<td>PRACTICUM IN GEOGRAPHIC INFORMATION SCIENCE</td>
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Major Electives, choose from the following:
- 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
- GEOG 69231 ENVIRONMENTAL REMOTE SENSING

Minimum Total Credit Hours: 30

1 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.

2 Required courses in the student’s concentration cannot be also applied toward the major electives.

Graduation Requirements
• Students must complete a minimum of 30 credit hours.