

GEOGRAPHIC INFORMATION SCIENCE - MINOR

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

About This Program

Unlock the power of spatial data with the Geographic Information Science (GIS) minor. This minor will equip you with essential skills in geospatial technologies, including cartography, remote sensing and GIS applications, preparing you for careers in urban planning, environmental science, public health and more. With a curriculum designed to complement majors like anthropology, biology, computer science and sociology, the GIS minor offers a versatile edge in today's data-driven world. Read more...

Contact Information

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- Speak with an Advisor

Program Delivery

- **Delivery:**
 - In person
- **Location:**
 - Kent Campus

Admission Requirements

Admission to a minor is open to students declared in a bachelor's degree, the A.A.B. or A.A.S. degree or the A.T.S. degree (not Individualized Program major). Students declared only in the A.A. or A.S. degree or the A.T.S. degree in Individualized Program may not declare a minor. Students may not pursue a minor and a major in the same discipline.

Program Requirements

Code	Title	Credit Hours
Minor Requirements		
GEOG 49070	GEOGRAPHIC INFORMATION SCIENCE	4
GEOG 49080	ADVANCED GEOGRAPHIC INFORMATION SCIENCE	3
Minor Electives, choose from the following:		9-10
GEOG 39070	MAPPING, SPACE AND POWER	
GEOG 49072	GEOGRAPHIC INFORMATION SCIENCE AND HEALTH	
GEOG 49073	ENVIRONMENTAL DATA ANALYSIS IN R	
GEOG 49075	GEOGRAPHIC INFORMATION SCIENCE: APPLICATIONS FOR SOCIAL PROBLEMS	
GEOG 49076	SPATIAL PROGRAMMING	
GEOG 49078	GEOGRAPHIC INFORMATION SCIENCE AND ENVIRONMENTAL HAZARDS	
GEOG 49085	WEB AND MOBILE GEOGRAPHIC INFORMATION SCIENCE	

GEOG 49162	CARTOGRAPHY
GEOG 49195	SPECIAL TOPICS IN GEOGRAPHIC INFORMATION SCIENCE
GEOG 49230	REMOTE SENSING

Minimum Total Credit Hours: 16

Graduation Requirements

Minimum Minor GPA	Minimum Overall GPA
2.000	2.000

- Minimum 6 credit hours in the minor must be upper-division coursework (30000 and 40000 level).
- Minimum 6 credit hours in the minor must be outside of the course requirements for any major or other minor the student is pursuing.
- Minimum 50 percent of the total credit hours for the minor must be taken at Kent State (in residence).

Program Note

- Appropriate specialized offerings may be substituted above as available with the approval of the coordinator.

Program Learning Outcomes

Graduates of this program will be able to:

1. Apply core concepts of geographic information science to formulate researchable questions and select appropriate analytical methods.
2. Acquire and manage spatial data from multiple sources and assess data quality, uncertainty and fitness for use in analysis.
3. Analyze spatial patterns and relationships using GIS tools and spatial statistics.
4. Communicate geospatial results clearly and ethically through maps, visualizations and narrative.
5. Use industry-standard and open-source software to build reproducible workflows and collaborate across related disciplines.

Full Description

The Geographic Information Science minor provides training with spatial data analysis and geospatial technologies that can be applied across disciplines. Students learn how to work with geographic information to identify patterns, address problems and communicate results. Application areas include environmental management, public health, disaster response and urban planning. Students majoring in anthropology, geology, architecture, computer science, public health or business find this minor especially valuable for strengthening their ability to use geospatial data in their field. It is also a strong complement to any major for students seeking applied, in-demand skills.