# GEOGRAPHIC INFORMATION SCIENCES MINOR

Geographic information sciences (GISc) is the study of geospatial phenomena using an integrated set of spatial digital technologies including tools, techniques, concepts, and datasets associated with geographic information systems, remote sensing, data visualization, global positioning systems, spatial analysis, and quantitative methods. Students in the GISc minor will learn spatial reasoning, geographic theory, hands-on experiences in cutting-edge geographic information systems (GIS), remote sensing (RS), global positioning systems (GPS), and their application in solving real-world problems, such as the impacts of climate and environmental changes on ecosystem goods and services, natural and anthropogenic factors affecting freshwater availability, biodiversity, and public health, among others. Students who complete the program will be ready to enter the job market with a competitive advantage in geographic information sciences.

## Requirements

In addition to the program requirements listed below, students must:

- take at least nine hours of their minor "core" requirements at UNC— Chapel Hill
- earn a minimum cumulative GPA of 2.000 in the minor core requirements. Some programs may require higher standards for minor or specific courses.

For more information, please consult the degree requirements section of the catalog (https://catalog.unc.edu/undergraduate/degree-requirements/).

Code	Title	Hours
Core Requirements		
GEOG 215	Introduction to Spatial Data Science	3
GEOG 370	Introduction to Geographic Information	3
Select three courses from the following list: 9		
ANTH 419	Anthropological Application of GIS	
GEOG 456	Geovisualizing Change	
GEOG 477	Introduction to Remote Sensing of the Environment	
GEOG/PLAN 491	Introduction to GIS	
GEOG 541	GIS in Public Health	
GEOG 544	Geographic Information Systems for Impact Evaluation and Health Studies	
GEOG 555	Cartography of the Global South	
GEOG 577	Advanced Remote Sensing	
GEOG 591	Applied Issues in Geographic Information Systems	
GEOG 592	Geographic Information Science Programmin	g
GEOG 594	Global Positioning Systems and Applications	
Total Hours		15

This minor is open to all undergraduate students. For geography majors and minors, please note that no more than 45 hours of GEOG course

credit may be used toward fulfilling the B.A. graduation requirement in the College of Arts and Sciences.

See the program page here (https://catalog.unc.edu/undergraduate/programs-study/geography-major-ba/#opportunitiestext) for special opportunities.

## **Department Programs**

#### Major

 Geography Major, B.A. (https://catalog.unc.edu/undergraduate/ programs-study/geography-major-ba/)

#### Minor

- Climate Change Minor (https://catalog.unc.edu/undergraduate/ programs-study/climate-change-minor/)
- Environmental Justice Minor (https://catalog.unc.edu/ undergraduate/programs-study/environmental-justice-minor/)
- Geography Minor (https://catalog.unc.edu/undergraduate/programsstudy/geography-minor/)
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#### **Graduate Programs**

- M.A. in Geography (https://catalog.unc.edu/graduate/schoolsdepartments/geography/)
- Ph.D. in Geography (https://catalog.unc.edu/graduate/schoolsdepartments/geography/)

## **Contact Information**

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