

Geographic Information Science Certificate (GISC)

Program Description:

The Certificate in Geographic Information Science is an interdisciplinary program hosted in the Geography Department **open to students in all majors and to non-degree seeking students**. The program is designed to address the growing demand for GIS-trained personnel in numerous fields. Upon completion of the certificate, students may be eligible to begin application for an additional professional certification in GIS administrated by the GIS Certification Institute (GISCI).

Introductory Courses (4 credits): Focus on the theory and application of GIS technology by combining classroom lessons with labs. Take one of the following:

- GEOG 250: Introduction to GIS and Cartography (4)
- GISC 200: Introduction to GIS (4)
- EESC 205: GIS Applications in Environmental Science and Geology (4)

Intermediate Course (4 Credits): Develop hands-on skills using industry-standard GIS software to solve real-world problems, while also learning about GIS as an analytical research tool:

- GISC 351: Spatial Analysis (4)

Elective Courses (4 Credits): Choose one of the following courses:

- GISC 340: Remote Sensing and Air Photo Interpretation (4)
- GISC 355: Mobile Geographic Information Systems and Global Positioning Systems (4)
- GISC 471: Special Topics (4)

Programming or Web-GIS Course (4 Credits): Take one of the following:

GISC 450: GIS Programming (4)	Introduction to fundamentals of python computer programming with exercises involving writing scripts and developing custom tools (CPSC 110 recommended prior to taking this course).
GISC 482: Web GIS Concepts and Applications (4)	Learn concepts and basic practical applications of Web GIS and the skills to develop Web GIS applications.

Capstone Experience (3 credits): Students complete the program by completing a faculty supervised internship or directed study. Students must register for one of the following courses:

- GISC 491: Directed Study in GIS
- GISC 499: Internship in GIS

Required classes are offered in the evening to accommodate working professionals and full-time students with scheduling conflicts; many classes are also offered during the day. **The certificate can be obtained solely through evening classes.**