

Major in Geographic Information Science

B.S. or B.A.

GIS IS A SCIENCE, TECHNOLOGY, ENGINEERING, AND MATH (STEM) MAJOR!

WHAT IS GIS?

Geographic Information Science (GIScience) is the scientific discipline that conducts spatial analysis to examine economic, environmental, physical, and social phenomena. GIS overlaps with and draws from many research fields such as computer science, statistics, mathematics, and psychology, and contributes to progress in those fields. GIS is interdisciplinary and supports research in many academic disciplines. Courses in GIS enable students to develop capability in spatial thinking and gather in-depth knowledge in geospatial technology.

POTENTIAL CAREER PATHS

The U.S. Department of Labor recognizes **geotechnology** as one of the three most progressive professions today, alongside nanotechnology and biotechnology. Graduates with GIS are in extremely high demand. Potential career paths include:

- Asset Management
- Banking & Insurance
- Land Use & Urban Planning
- Environmental Science & Agriculture
- Transportation & Utilities
- Engineering & Construction
- Defense & Military Applications

RECOMMENDED PREPARATION

COURSE	TITLE	CREDITS
GEOG 1302	GIS Modeling of Environmental Change	4
GEOG 2410	New Digital Worlds of GIS	3

REQUIRED CORE COURSES (16 CREDITS)

COURSE	TITLE	CREDITS
GEOG 2500	Introduction to GIS	4
GEOG 2505	Applications of GIS	4
*GEOG 3500Q	Geographic Data Analysis	4
*GEOG 3510	Cartographic Techniques	4
GEOG 3530	Introduction to GeoComputing	3
GEOG W	Any Course (2000 level or above)	1-3

GIS ELECTIVES (9 CREDITS)*

HUMAN AND PHYSICAL GEOGRAPHY ELECTIVES (6 CREDITS)*

RELATED/TRANSFERRABLE COURSES (12 CREDITS)•

Remote Sensing	NRE 3535, 4535, 4545, 4575
Computer Science & Engineering	CSE 2050, 2100, 2102, 2300, 2304, 2500, 3000, 3100, 3150; 3300, 3400, 3500 CE 2251, 2310, 2410, 2710
Math and Statistics	MATH 2110Q, 2130Q, 2143, 2144, 2210Q, 2410Q, 2420Q, 3160, 3410, 3435, 3710 STAT 2215Q, 3025Q, 3115Q, 3375Q, 3445, 3515Q
Social Science	ANTH 2510, 3003, 3090, 3503, 3512, 3513, 3514, 3515 INTD 3584, 3594 POLS 2062, 2072Q SOCI 3201, 3211Q URBN 2000, 2100, 2301Q, 2302, 2400, 3000, 3993, 3981/3991, 3998 COMM 2110, 2940, 3000Q, 3300 WGSS 2124, 2255, 2255W, 3255, 3255W, 3269
Natural Science	GSCI 2500, 3230, 4050W, 4210, 4735 EEB 4100, 4230W MARN 2060, 3000, 3014, 3030, 3812
Economics	ECON 2201, 2202, 2211Q, 2212Q, 2301, 2311, 2312, 2326, 2327, 3103, 3313, 3421, 3439

* See major description for detail

- At least 3 credits must be Remote Sensing courses
- Other courses can be used with approval of a student's Geography advisor

Visit **geography.uconn.edu**

for more information about the major

Undergraduate Advisor

General Inquiry

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