Geographic Information Science, Minor

Geographic information systems (GIS), and the tools and digital spatial data that they contain, help inform major decisions on how natural resources are managed, how smart cities are built, how communities respond to natural disasters, and how the spread of disease is detected. The minor is designed to provide the knowledge and skills needed to work with geographic information and prepare individuals to work in this growing profession. Geography majors are not eligible for the geographic information science major.

Requirements

The undergraduate minor in geographic information science requires a minimum of 16 s.h. in geographical and sustainability sciences courses, including 12 s.h. in University of Iowa courses numbered 3000 or above. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

Geography majors may not earn the minor in geographic information science.

The minor requires one core course, three mid-level specialization courses, and an advanced course that builds on one of the three mid-level courses. Students may consult with the department's academic advisor for help in selecting the advanced course.

The minor in geographic information science requires the following coursework.

Core Course

Course #	Title	Hours
This course:		
GEOG:2050	Foundations of GIS	4

Mid-Level Specialization Courses

Course #	Title	Hours
All of these:		
GEOG:3500/ IGPI:3500	Introduction to Environmental Remote Sensing	3
GEOG:3520/ IGPI:3520	GIS for Environmental Studies	3
GEOG:3540/ IGPI:3540	Geographic Visualization	3

Advanced Course

Course #	Title	Hours
One of these:		
GEOG:3570	Light Detection and Ranging (LiDAR): Principles and Applications	3
GEOG:4150/ GHS:4150/ IGPI:4150	Health and Environment: GIS Applications	3
GEOG:4500/ IGPI:4500	Advanced Remote Sensing	4
GEOG:4520/ IGPI:4520	GIS for Environmental Studies: Applications	3
GEOG:4580/ IGPI:4581	Introduction to Geographic Databases	3

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

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Course	Title	Hours
Academic Career		
Any Semester		
Students pursuing the Geography major cannot also pursue the Geographic Information Science (GIS) minor.		
12 semester hours of the Geographic Information Science minor must be 3000-level or above and taken at the University of Iowa.		
	Hours	**0**
First Year		
Spring		
GEOG:2050	Foundations of GIS	4
	Hours	**4**
Second Year		
Fall		
GEOG:3500	Introduction to Environmental Remote Sensing	3
	Hours	**3**
Spring		
GEOG:3540	Geographic Visualization	3
	Hours	**3**
Third Year		
Spring		
GEOG:3520	GIS for Environmental Studies	3
	Hours	**3**
Fourth Year		
Fall		
Minor: GIS advanced course [a]		3
	Hours	**3**
	Total Hours	**16**

a Refer to the General Catalog for a list of recommended courses.