

Certificate in Geographic Information Systems

Geographic Information Systems (GIS) is a robust and rapidly growing technology that allows users to “capture, store, manipulate, analyze and display all types of spatially referenced geographic information about what is where on the earth's surface and how they relate to each other” (ESRI 2002). It has wide-ranging applications across disciplines and is used by professionals in such disparate careers as epidemiology, public and private utilities, journalism, and rural land management. Graduates of WSU anticipating working in the field sciences, whether anthropology, biology, criminal justice, history, geography, geology, linguistics or urban planning (among others), will need a foundation in geospatial science – just as all now are expected to have working knowledge in the basics of using a word processor, spreadsheets and email. Beyond the field sciences, GIS is a high-demand skill in countless career paths. Knowledge of GIS will give students in any field a strategic edge in the job market.

The certificate program is open to all WSU undergraduate students.

Program Requirements

To complete the undergraduate GIS certificate, students must complete 12 credits of course work including:

Course	Title	Hours
GIS Level I - Introduction		
Choose one of the following		3
ANTH 562	Introduction to GIS	
CJ 581D	Crime Mapping and ArcGIS	
GIS Level II - Database Management		
GEOL 692	Spatial SQL and SDE	3
Choose One of the Following Options		6
<i>Option 1</i>		
Take two courses (3 credit hours each) from GIS Level III		
<i>Option 2</i>		
Take one course each from GIS Level III and GIS Level IV (3 credit hours each)		
Total Credit Hours		12

Course	Title	Hours
GIS Level III - Mapping, Interpretation and Analysis		
ANTH 662	Topics in Spatial Analysis	
CJ 581C	Crime Analysis	
GEOL 690Z	Applied GIS	
GEOL 693	Python for Geospatial Analysis	
GIS Level IV - Specific Applications		
ANTH 664	Spatial Project in Anthropology	
RE 691	Independent Study/Project	
GEOL 540	Environmental and Engineering Field Methods	
GEOL 564	Remote Sensing Interpretation	

Student must complete course work in GIS levels as prescribed and must earn a grade of *C* or better in all courses and overall grade point average of 2.000 or better for all courses comprising the certificate program.