## 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 Managen	nent	
GEOL 692	Spatial SQL and SDE	3
Choose One of the Following Opt	ions	6
Option 1		
Take two courses (3 credit hours	s each) from GIS Level III	
Option 2		
Take one course each from GIS hours each)	Level III and GIS Level IV (3 credit	
Total Credit Hours		12
Course	Title	Hours
Course GIS Level III - Mapping, Interpre	Title etation and Analysis	Hours
Course GIS Level III - Mapping, Interpre ANTH 662	<b>Title</b> etation and Analysis Topics in Spatial Analysis	Hours
Course GIS Level III - Mapping, Interpre ANTH 662 CJ 581C	<b>Title</b> etation and Analysis Topics in Spatial Analysis Crime Analysis	Hours
Course GIS Level III - Mapping, Interpre ANTH 662 CJ 581C GEOL 690Z	Title etation and Analysis Topics in Spatial Analysis Crime Analysis Applied GIS	Hours
Course GIS Level III - Mapping, Interpresent ANTH 662 CJ 581C GEOL 690Z GEOL 693	Title   etation and Analysis   Topics in Spatial Analysis   Crime Analysis   Applied GIS   Python for Geospatial Analysis	Hours
Course GIS Level III - Mapping, Interpresent ANTH 662 CJ 581C GEOL 690Z GEOL 693 HIST/GEOG 550	Title   etation and Analysis   Topics in Spatial Analysis   Crime Analysis   Applied GIS   Python for Geospatial Analysis   Mapping and History	Hours
Course GIS Level III - Mapping, Interpresent ANTH 662 CJ 581C GEOL 690Z GEOL 693 HIST/GEOG 550 GIS Level IV - Specific Applicatio	Title   etation and Analysis   Topics in Spatial Analysis   Crime Analysis   Applied GIS   Python for Geospatial Analysis   Mapping and History	Hours
Course GIS Level III - Mapping, Interpresent ANTH 662 CJ 581C GEOL 690Z GEOL 693 HIST/GEOG 550 GIS Level IV - Specific Application ANTH 664	Title   etation and Analysis   Topics in Spatial Analysis   Crime Analysis   Applied GIS   Python for Geospatial Analysis   Mapping and History   DIS   Spatial Project in Anthropology	Hours
Course GIS Level III - Mapping, Interpre ANTH 662 CJ 581C GEOL 690Z GEOL 693 HIST/GEOG 550 GIS Level IV - Specific Applicatio ANTH 664 RE 691	Title   Etation and Analysis   Topics in Spatial Analysis Crime Analysis   Crime Analysis Applied GIS   Python for Geospatial Analysis Analysis   Mapping and History master Sector Sect	Hours
Course GIS Level III - Mapping, Interpre ANTH 662 CJ 581C GEOL 690Z GEOL 693 HIST/GEOG 550 GIS Level IV - Specific Applicatio ANTH 664 RE 691 GEOL 540	Title   Etation and Analysis   Topics in Spatial Analysis   Crime Analysis   Applied GIS   Python for Geospatial Analysis   Mapping and History   DB   Spatial Project in Anthropology   Independent Study/Project   Field Map Methods	Hours

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.