

MINOR IN GEOGRAPHIC INFORMATION SYSTEMS

College of Business and Public Management

Curriculum

Students must complete a minimum of six credits of advanced standing coursework in their minor.*

This minor explores the fundamental concepts and skills of geographic information systems (GIS) as a tool for data management, spatial analysis, and geovisualization. Students will explore the foundations of spatial data, database management, modeling, cloud-based applications, and the production of analysis and cartographic outputs for research and community engagement. The application and visualization components of this minor align well with disciplines in the earth, computer, and social sciences.

Code	Title	Credits
Required Courses		
GEO 324	Intro to Geographic Information Systems	3
GEO 328	Computer Cartography	3
GEO 427	Geodatabase System	3
Elective Courses		9
Select 3 courses in consultation with an advisor (at least one of the courses must be from Geography and Planning).		
GEO 213	GIS for Social Justice	
PLN 214	Introduction to Planning	
GEO 318	Economic Geography	
GEO 325	Intro Business GIS	
GEO 338	Environmental Application of Geographic Information Systems (GIS)	
GEO 401	Internet Mapping	
GEO 415	Internship in Geography and Planning	
GEO 424	Geographic Information Systems Application	
GEO 425	Business GIS Applications	
ANT 213	Archaeological Field Techniques	
ANT 367	Archaeology and the Environment	
ANT 368	Archaeological Field School	
BIO 270	Ecology	
BIO 484	Epidemiology	
CRJ 215	GIS for Criminal Justice Careers	
CRJ 318	Environmental Crime	
CRJ 323	Opportunities, Situations, and Crime: Environmental Criminology	
CSC 141	Computer Science I	
CSC 142	Computer Science II	
CST 221	Database Systems	
CSW 131	Introduction to Web Design	
CSW 315	Introduction to Web Programming	
ESS 201	Field Geology	
ESS 323	Gen'l Geol Field Studies of SE Pennsylvania	
ESS 343	Geomorphology	
ESS 344	Geomorphology II	
ESS 435	Remote Sensing	
ESS 394	Geology of Northwestern National Parks	

ENV 445	Risk Assessment
HEA 342	Program Planning and Evaluation
HEA 348	Population Health: Analysis, Surveillance, and Intervention
HEA 419	Research Methods in Health

Total Minimum Credits Required **18**

*Advanced standing coursework is defined as any 300-level course or above and specific 200-level courses identified by the department.