

The below curriculum outlines the requirements of the GIS certificate program. Exceptions must be approved by the GIS certificate program coordinator.

Course	Title	Credits
Level One (choose one):*		3.0
GIS 494/598	Applied GIS (GIS for Non-Majors)	
PAF 571	Geographic Information Systems (GIS) and Analysis	
PUP 576	GIS Workshop for Planners	
Level Two (choose two):		6.0
ABS 485	GIS in Natural Resources	
GIS 471/591	Spatial Stats for Geography and Planning	
GIS 521	GIS Programming	
GIS 561	Optimization Fundamentals for Spatial Analysis	
GIS 562	Location Analysis and Modeling	
GIS 591	Data Mining and Data Driven Geography	
GIS 598	Local Statistical Modeling	
Graduate Elective:**		3.0
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GIS/GPH 591	Seminar: GIS Capstone	1.0
Total credits required for GIS certificate:		16.0

*Students may waive the Level One course by showing proof of taking a GIS concept/theory course offered either through a University or community college in the last two years. Students waiving the Level One course must take an additional elective to complete the 16 credits needed to earn the certificate.

**Choose electives from an approved list of GIS-related courses

Course Requirements

A maximum of 6.0 credits of 400-level elective coursework may be included on the plan of study but must be approved by the GIS certificate program coordinator.

Pre-admission Credit

No more than 6.0 credits taken prior to admission into the GIS certificate program may be included on the plan of study.

Culminating Experience

The culminating experience is an applied professional project GIS/GPH 591 GIS Capstone.

Approved Electives

Refer to the following list of pre-approved electives while planning your coursework. Some courses are offered outside of SGSUP and therefore are subject to change. View the [Schedule of Classes](#) for the most current course offerings. Other courses may be taken, but must be approved by the department if they are not on the Approved Electives list. Submit the *Petition for Transfer or Interdisciplinary Elective Courses* form to request approval.

Course	Title	Credits
ABS 560	Ecological Modeling	3
CSE 412	Database Management	3
GCU 542	Geographical Analysis of Transportation	3
GPH 569	Digital Analysis of Remotely Sensed Data	3
GIS 584	Internship	1-4
GPH 598	Advanced Digital Analysis	3
GIS 598	Geodesign and Urban Planning	3