

# GEOGRAPHIC INFORMATION SYSTEMS (GIS) CERTIFICATE

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Geographic Information Systems (GIS) are the basis for understanding our world through digital spatial information. The GIS certificate is designed to meet the growing demand for GIS applications in diverse disciplines.

The courses required to complete the GIS certificate span topics from introductory to advanced applications, including the elements of GIS, spatial data type and acquisition, coordinate systems, projections, data editing and topology, site suitability and data modeling, geoprocessing, geostatistical analysis, spatial interpolation, watershed delineation, network and 3-D analysis.

To earn a GIS certificate, students must complete at least 9 credits from the following courses:

Code	Title	Hours
GEOG 241	Fundamentals of GIS I	4.00
GEOG 343	Fundamentals of GIS II	4.00
Select one of the following:		1.00-4.00
GEOG 442	Advanced Principles of GIS	
GEOG 452	GIS Special Project	
GEOG 491	Undergraduate Research	
<b>Total Hours</b>		<b>9.00-12.00</b>

*(Applied GIS research mentored by a faculty member)*