

GRADUATE CERTIFICATE: GEOGRAPHIC INFORMATION SYSTEMS (GIS)

Student Learning Outcomes

Students graduating from this program will:

- Students will be able to identify geospatial issues and technical needs in problem-solving in relation to relevant academic disciplines, industrial production, or public services
- Students will be able to analyze geospatial data and produce maps using relevant GIS software
- Students will be able to present geospatial study findings with oral presentation and written reports
- Students will be able to design and complete a geospatial project using geospatial knowledge and GIS technologies

Geographic Information Systems (GIS) and related geospatial techniques are fast-growing and increasingly applied to almost all sectors of our society. Examples include environmental mapping, urban planning, and public resource management. This Missouri State-approved, transcribed graduate certificate program offers GIS-related multidisciplinary courses through several academic programs such as Earth and Environmental Sciences, Urban Planning and Design, Architecture, and Civil Engineering. The curriculum is designed to prepare students for a variety of careers in the rapidly growing job market.

This graduate certificate program is open to any students with a bachelor’s or a graduate degree and appropriate academic backgrounds, such as degree-seeking graduate students and working professionals.

For completion of the certificate program, the student is required to finish the coursework of 12 credit hours with a 3.0 GPA or higher.

Code	Title	Credits
Required Core Courses		8
GEOG 5507	Advanced Geographic Information Science	
GEOG 5502	Environmental Remote Sensing and Digital Image Analysis	
or GEOG 5544	Advanced Spatial Data Analysis	
Electives (not already completed above)		4
Select from the following:		
GEOG 5544	Advanced Spatial Data Analysis	
or GEOG 5502	Environmental Remote Sensing and Digital Image Analysis	
GEOG 5598D	Special Topics in Advanced GIS and Remote Sensing	
UPD 5740	Advanced GIS for Urban Planning	
CIV-ENGR 5588	Applied Artificial Intelligence	