

GEOGRAPHIC INFORMATION SYSTEMS CERTIFICATE, GRADUATE

- design and implement methods and communicate results using geographic information system software as part of critical spatial analysis research.

The graduate certificate is open to all current graduate students and to post-degree continuing education students. No prior background in GIS is required.

The Graduate Certificate in Geographic Information Systems offers current graduate and post-baccalaureate students an intensive, interdisciplinary course of study in the field of Geographic Information Systems (GIS) technology and theory. All certificate students complete four required courses that introduce GIS concepts and applications, database formats, mapping, and spatial analysis. Based on area of specialization, students then elect to pursue GIS applications in either the environmental sciences or the social sciences. All students are required to participate in a “real world” GIS project in order to complete the certificate.

Required Core

GEOS 528	GEOGRAPHIC INFORMATION SYSTEMS I	5
GEOS 538	GEOGRAPHIC INFORMATION SYSTEMS II	5
GEOS 548	GEOGRAPHIC INFORMATION SYSTEMS III	5
GEOS 549	GIS PORTFOLIO	2

Elective Concentrations

Application Area Concentration

GEOS 521	GIS FOR SOCIAL SCIENCES	3-5
or GEOS 523	GIS FOR ENVIRONMENTAL SCIENCE	

Programming and Geospatial Database Concentration

GEOS 536	GIS PROGRAMMING	5
or GEOS 599	INDEPENDENT STUDY	

Visualization Techniques Concentration

GEOS 527	DESKTOP MAPPING	3-5
or GEOS 599	INDEPENDENT STUDY	

Note: Current graduate students in programs other than this certificate program will be required to demonstrate use of GIS analysis in their master’s research project. Current post-baccalaureate students will be required to complete an internship with a designated community partner as part of their GEOS 548 course.

Total Credits **28**

Students who successfully earn a Geographic Information Systems Graduate Certificate from EWU should be able to do the following:

- critically evaluate research in the field of geographic information science;
- critically evaluate the quality and accuracy of spatial data;
- demonstrate knowledge of the history of the technologies, methodologies, and philosophies of geographic information science;
- demonstrate mastery of foundational concepts of geographic information science;
- demonstrate proficiency with geographic information system software and related programming languages;