

# GEOGRAPHY CERTIFICATE: FUNDAMENTALS OF GIS GRADUATE CERTIFICATE

## CORE REQUIREMENTS (1 Course)

Cr. 3 F, S  
**GEO 305**

AND STAT 145

Cr. 3 F, S  
**GEO 505**

A foundation in GIS through prior coursework or professional work experience, approved by the department, is required for admission to the Fundamentals of GIS Program. Students without prior GIS experience can meet this requirement by completing GEO 590 Independent Study. This course will provide the foundational GIS knowledge taught in GEO 305 Geographic Information System and Science I and additional GIS graduate level applications and learning objectives. Credits earned in GEO 590 do not count towards the Fundamentals in GIS Program.

Students must submit a GIS portfolio to the program advisor upon completion of the program

Cr. 3 F  
**GEO 510**

Cr. 3 S  
**GEO 512**

Cr. 3 F  
**GEO 515**

Cr. 3 F  
**GEO 518**

Cr. 3 S, OY  
**GEO 588**

Cr. 3 S, OY  
**GEO 565**

Cr. 3 S  
**GEO 585**

Cr. 3 S  
**GEO 545**

Cr. 3 S, EY  
**GEO 555**

**GEOSPATIAL  
TECHNIQUES  
ELECTIVES  
(6 Credits)**

### PREREQUISITES:



### LEGEND:

F = FALL  
S = SPRING

O = OCCASIONALLY  
OY = ODD NUMBERED YEARS  
EY = EVEN NUMBERED YEARS

GEOGRAPHY &  
ENVIRONMENTAL SCIENCE



**Geography Certificate:****9 CREDITS****Fundamentals of Geographic Information Science (GIS) Graduate Certificate**

A foundation in geographic information science (GIS) through prior coursework or professional work experience, approved by the department, is required for admission to the Fundamentals of GIS Program. Students without prior GIS experience can meet this requirement by completing GEO 590 Independent Study. This course will provide the foundational GIS knowledge taught in GEO 305 Geographic Information Systems and Science I and additional GIS graduate level applications and learning objectives. Credits earned in GEO 590 do not count towards the Fundamentals of GIS Program.

Students are required to develop a GIS portfolio and submit it to the program advisor to complete the Fundamentals of GIS Program.

**Core Requirement:**

Name	Credits	Description	Prerequisite	Offered
GEO 505	3	Geographic Information System and Science II	GEO 305; STAT 145	F, S

**Geospatial Techniques Electives (Choose 6 Credits)**

Name	Credits	Description	Prerequisite	Offered
GEO 510	3	Geospatial Field Methods	GEO 305	F
GEO 512	3	Geospatial Applications of Unmanned Aerial Systems	GEO 305	S
GEO 515	3	Remote Sensing of the Environment I	GEO 305	F
GEO 518	3	Map Design and Geovisualization	GEO 305	F
GEO 545	3	Remote Sensing of the Environment II	GEO 515	S
GEO 555	3	Web Mapping	GEO 518	S-Even
GEO 565	3	Geospatial Automation	GEO 505	S-Odd
GEO 588	3	Quantitative Methods in Geography	GEO 305; STAT 145	S-Odd
GEO 585	3	Geographic Information System and Science III	GEO 505	S

\* Offered Codes: F = Fall; W = Winter; S = Spring; Su = Summer; O = Occasionally; F-Odd = Fall, Odd Years; F-Even = Fall, Even Years; S-Odd = Spring, Odd Years; S-Even = Spring, Even Years