## Certificate

## Geographic Information Science Certificate

The certificate in geographic information science (GISci) provides a program for students and professionals pursuing careers in geographic information systems (GIS) and related spatial technologies (remote sensing, global positioning systems, cartography, and spatial data handling and analysis). Awarded upon completion of the requirements, the certificate is an affidavit of academic proficiency and is administered by the Department of Political Science and Geography. Students must take courses in the areas listed below and complete them with a cumulative GPA of 3.00 or higher and no grade below a C (2.00). Students must complete a minimum of six hours in upper-level courses required for the certificate through courses offered by Old Dominion University.

The certificate is available to undergraduate students and non-degree seeking professionals who meet the requirements. Students with comparable professional experience may be able to satisfy competencies in selected courses through examination.

## Requirements

Students must complete the following courses:

Core Cou	ırses
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**Total Credit Hours** 

GEOG 300	Maps and Geographic Information	3
GEOG 402	Geographic Information Systems	3
GEOG 404	Digital Techniques for Remote Sensing	3
<b>Developmental Cour</b>	rses	
Select two of the follo	owing:	6
GEOG 330	Field Methods (Prior Approval Required)	
GEOG 368	Internship in Geography (Prior Approval Required)	
GEOG 408	Cartography	
GEOG 419	Spatial Analysis of Coastal Environments	
GEOG 425	Internet Geographic Information Systems	
GEOG 432	Advanced GIS	
GEOG 463	GIS Programming	
GEOG 473	Geographic Information Systems for Emergency Management	
GEOG 490	Applied Cartography/GIS	
GEOG 495	Topics in Geography (Prior Approval Required)	
GEOG 497	Independent Research in Geography (Prior Approval Required)	

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