

GEOSPATIAL TECHNOLOGIES CERTIFICATE

Undergraduate Upper Division Certificate
<https://www.towson.edu/cla/departments/geography/undergrad/geospatial-technologies-certificate/>

Requirements

Admission Requirements

Students wishing to pursue the certificate must have completed GEOG 221 (or equivalent) with a C or higher. Students must be a degree-seeking student at Towson University or have completed a bachelor's degree from a regionally accredited college or university in order to pursue this certificate.

Certificate Requirements

All requirements for the Certificate in Geospatial Technologies must be completed with a grade equivalent of 2.00 or higher. At least four of the courses listed must be completed at Towson University.

Code	Title	Units
Required		
GEOG 321	INTRODUCTION TO REMOTE SENSING AND PHOTOGRAMMETRY	3
GEOG 322	INTRO TO GEOGRAPHIC INFORMATION SCIENCE	4
Three electives from the following courses:		9
GEOG 323	CARTOGRAPHY AND GRAPHICS I	
GEOG 408	APPLICATION OF GIS IN EMERGENCY MANAGEMENT	
GEOG 414	GIS APPLICATIONS	
GEOG 416	ADVANCED REMOTE SENSING: DIGITAL IMAGE PROCESSING AND ANALYSIS	
GEOG 426	GIS DATABASE DESIGN	
GEOG 428	PYTHON SCRIPTING FOR ARCGIS	
GEOG 465	ADVANCED TECHNIQUES IN GIS	
GEOG 471	GEOSPATIAL TECHNOLOGIES SPECIAL TOPICS	
Total Units		16

Learning Outcomes

Upon successful completion of the certificate, candidates will be able to:

1. Demonstrate conceptual foundations of geospatial technologies.
2. Demonstrate competence in the use of GIS and their practical applications.
3. Effectively use remote sensing as a tool for environmental or landscape problem solving
4. Use GIS to analyze spatial data to reveal spatial patterns and relationships.
5. Convey geographic information effectively through maps.