

CERTIFICATE IN GEOSPATIAL SCIENCE AND TECHNOLOGY (GSAT)

The certificate in Geospatial Science and Technology provides a program for students and professionals interested in geospatial careers and technologies (including Geographic Information Science, Remote Sensing, the Global Positioning System, Cartography, and spatial data handling and analysis). The Certificate signifies academic proficiency in Geospatial Science and Technology and is administered by the Department of Humanities and Social Sciences. It is rendered upon completion of the requirements below and includes both a physical copy of the certificate plus an entry on student transcripts.

Students must take a minimum of 18 s.h. (6 courses) as listed below and complete them with a cumulative GPA of 3.00 (B) or higher and no course grade below a C. The certificate is available to undergraduates and non-degree seeking professionals who meet course requirements. Note that some classes may require prerequisites courses for entrance.

COURSE	TITLE	S.H.
Required Courses (9 s.h.)		
GEOG 2611	Geospatial Foundations	
GEOG 3701	Introduction to Geographic Information Science	
GEOG 3702	Introduction to Remote Sensing	
Select one course from the following (3 s.h.)		
GEOG 4801	Advanced Geographic Information Science	
GEOG 4802	Advanced Remote Sensing	
Select two elective courses from the following (6-7 s.h.):		
GEOG 3712	Thematic Map Design and Symbolization	
GEOG 3775	Field Methods in Geography	
GEOG 3781	GIS Applications for the Social Sciences	
GEOG 3782	GIS Applications for the Natural Sciences	
GEOG 4825	Geography Internship ¹	
GEOG 4801	Advanced Geographic Information Science	
GEOG 4802	Advanced Remote Sensing	
GEOG 4840	Seminar in Geography	
GEOG 5812	Global Positioning Systems and GIScience ²	
GEOG 5820	Directed Research in Geography ¹	
CSIS 3722	Development of Databases	
CSIS 3726	Visual/Object-Oriented Programming	
CEEN 2610 & 2610L	Surveying and Surveying Laboratory	

¹ These courses are allowed for credit in the GSAT certificate only if they contain a significant Geospatial Science and Technology related component, are taken for 3 s.h. of credit, and are given approval by the chairperson.

² These courses are allowed to count for elective credit only if they have not been taken under required courses.

Learning Outcomes

The department offers a Certificate in Geospatial Science and Technology. The certificate represents academic proficiency for career-oriented students and professionals in the geospatial field to include geographic information science, remote sensing, global positioning systems, cartography, and spatial data handling and analysis. It is rendered upon completion of the requirements and includes a physical copy of the certificate and entry on the student's transcript.

Learning Outcomes

Students, upon fulfilling the requirements of the Certificate in Geospatial Science and Technology (GSAT), will:

- Effectively use, analyze, and interpret maps and other graphic representations of geographic information.
- Be proficient in geographic methods and techniques such as cartography, GIScience, remote sensing, and field methods.
- Effectively communicate geographic information in written and oral forms.

Demonstrate proficiency in one or more applications of geospatial technology – geographic information systems, global positional systems, and remote sensing.