

GEOGRAPHIC INFORMATION SYSTEMS CERTIFICATE

Certificate in GIS Sciences and Technologies

The Certificate in GIS Sciences and Technologies, jointly offered by the departments of Geography and Forest Management, is aimed at present or future professionals or scientists who require skills in GIS technologies. The purpose of this program is to provide undergraduate students or individuals possessing an undergraduate degree with the training, knowledge, and understanding necessary to acquire, process, analyze, and properly display digital geographic data.

Special Requirements for the Certificate

To earn a certificate in GIS Sciences and Technologies, students must either complete or have completed an undergraduate degree and complete a minimum of 18 semester credit hours of course work, including 9 to 10 required credits and 8 to 9 elective credits as described below. Students must achieve at least an overall grade point average of 3.0 for courses within the program in order to earn a certificate. The certificate will be awarded upon the successful completion of all of the requirements of the certificate and the undergraduate degree.

Post-secondary Certificate - Geographic Information Systems

Summary

Code	Title	Hours
	Required GIS Core Courses	9-10
	Advanced Elective Courses	8-9
	Total Hours	17-19

Degree Specific Credits: 17-19

Required Cumulative GPA: 3.0

Required GIS Core Courses

Rule: Complete each of the following subcategories. 9-10 total credits required.

Introduction to GIS

Code	Title	Hours
Complete one of the following courses:		3
FORS 250	Intro to GIS for Forest Mgt	
GPHY 284	Intro to GIS and Cartography	
	Total Hours	3

Minimum Required Grade: C-

Photogrammetry/Remote Sensing

Code	Title	Hours
Complete one of the following courses:		3-4
FORS 351	Env Remote Sensing	

GPHY 487 & GPHY 489	Remote Sensing/Raster GIS and Cartography/GIS Laboratory	
Total Hours		3-4

Minimum Required Grade: C-

Additional Required Courses

Code	Title	Hours
Complete one of the following courses:		3
FORS 350	Forestry Apps of GIS	
GPHY 488	Applications of GIS	
Total Hours		3

Minimum Required Grade: C-

Elective Courses

Code	Title	Hours
Complete 8-9 credits of the following courses:		8-9
ANTY 452	GIS in Archaeology	
CSCI 444	Data Visualization	
FORS 505	Sampling Methods	
FORS 551	Digital Image Processing	
GPHY 385	Field Techniques	
GPHY 468 & GPHY 469	Community & Regional Analysis and Planning & Analysis Laboratory	
GPHY 474	UAV Remote Sensing for Field Ecology	
GPHY 481	Advanced Cartographic Design	
GPHY 485	Internet GIS	
GPHY 486 & GPHY 489	Transport, Planning & GIS and Cartography/GIS Laboratory	
GPHY 564	Planning Design	
GPHY 580	Seminar GIS & Cartography	
GPHY 587 & GPHY 589	Image Analysis & Modeling and Cartography/GIS Laboratory	
GPHY 588 & GPHY 589	Spatial Analysis and Modeling and Cartography/GIS Laboratory	
WILD 562	Wildlife Habitat Modeling	

Minimum Required Grade: C-