

# GEOGRAPHIC INFORMATION SYSTEMS AND SCIENCE (UNDERGRADUATE CERTIFICATE)

## Program Overview

The GIS certificate is a 16-18 credit hour program open to all majors and non-degree students. The program is designed for individuals who want to enhance their careers or academic studies through a development of spatial reasoning and analysis using academically informed geographic information systems and science. The GIS skills and practices learned in this program equip students to use spatial data in their chosen majors and/or occupations. The award of the certificate means that the holder has completed the required courses and 9-10 hours of elective courses earning a "B" or better in each course. For courses graded as "Satisfactory/ Unsatisfactory" a "SAT" grade must be earned.

## Program of Study

Code	Title	Credit Hours
<b>Required Curriculum</b>		<b>7</b>
A grade of B or better is required in each course		
GEOG 2215	Introduction to the Geographic Information Systems	3
GEOG 5215U	Advanced Geographic Information Systems	4
<b>Elective Curriculum</b>		<b>9-11</b>
A grade of B or better is required in each course		
GEOG 3828	GIS Module Independent Study	4
GEOG 4615	Internship (offered through negotiated contract) <sup>3</sup>	1-3
ENVS 5235U	Geographic Information and Global Positioning Systems <sup>5</sup>	4
DATA 1501	Introduction to Data Science	3
BUSA 2100	Introduction to Information Systems in Business	3
	or MISM 2115	
Additional GIS - oriented courses approved by the certificate coordinators as they become available will be suitable as elective coursework.		

<sup>3</sup> There are specific obligations to GEOG 4615 Internship that must be met for the internship, paid or unpaid, to qualify for credit.

<sup>4</sup> As examples of additional GIS course work that would qualify, the department is currently considering extending the GIS curriculum to include a remote sensing class and a GIS programming class.

<sup>5</sup> Can be used to replace GEOG 2215 as a required course for students in the MS Environmental Science program.

Prerequisites: GEOG 2215 Introduction to the Geographic Information Systems offered in Fall and Spring Semesters