GEOGRAPHICAL INFORMATION SYSTEMS

The program in Geographical Information Systems is a four course (12 credit) interdisciplinary program that leads to a certificate in geographical information systems and spatial literacy. It can be completed by students in conjunction with any major across the university.

Students completing the concentration in GIS will:

1. Develop critical interdisciplinary spatial literacy

2. Acquire proficiency in geospatial technologies and methods in order to discover, retrieve, interpret, analyze, visualize, and store spatial data

3. Understand and adopt the ethical principles and collaborative spirit of the academic GIS community

4. Understand the relationship between geography, culture, and justice and how they relate to realworld issues

Geographical Information Systems (GIS) Undergraduate Certificate

Code	Title	Hours
GIS 101	Introduction to GIS	3
GIS 201	Intermediate GIS	3
Choose 2 courses:		6
GIS 170	Special Topics in GIS	
GIS 270	Special Topics in GIS	
GIS 370	Special Topics in GIS	
Total Hours		**12**

GIS 101 Introduction to GIS (3 credits)
This course is designed to acquaint students with an introductory examination of geographic information systems (GIS). GIS tools are used to analyze spatial information, manage spatial data, and create maps used to present and visualize data. This course focuses on ArcGIS and how to apply GIS skills to answer research questions. GIS technology is used in a variety of disciplines including humanities, engineering, economics, environmental studies, engineering, management, urban planning, agriculture, forestry, public health, and many others.
Attributes: Undergraduate

GIS 170 Special Topics in GIS (3 credits)
This course examines selected introductory topics and techniques in GIS. Examples include map making, geospatial thinking, web-mapping, cartography and visualization, and the use of applications for specific majors or fields. Course content reflects recent trends in GIS and the job market.
Attributes: Undergraduate

GIS 201 Intermediate GIS (3 credits)
A continuation of GIS 101, this course will prepare students for more advanced geographical analysis and use of geographical information systems (GIS). Students will learn intermediate techniques to analyze spatial information, manage spatial data, and create map layouts to present and visualize data. This course focuses on ArcGIS and other softwares as well as how students can integrate geographic concepts and GIS skills in their major and intended field.
Prerequisites: GIS 101 or INT 170
Attributes: Undergraduate

GIS 270 Special Topics in GIS (3 credits)
This course examines selected intermediate topics and techniques in GIS. Examples include map construction, geovisualization, spatial analysis, and the use of applications for specific majors or fields. Course content reflects recent trends in GIS and the job market.
Prerequisites: GIS 101 or INT 170
Attributes: Undergraduate

GIS 370 Special Topics in GIS (3 credits)
This course examines selected topics and innovative techniques in GIS. Examples include remote sensing, location analysis, web mapping, cartographical design, GIS programming, and the use of specialized applications for specific majors or fields. Course content reflects recent trends in GIS and the job market.
Prerequisites: (GIS 101 and GIS 102) or (INT 170 and INT 270)
Attributes: Undergraduate

GIS 601 Introduction to GIS (3 credits)
This course is designed to acquaint students with an introductory examination of geographic information systems (GIS). GIS tools are used to analyze spatial information, manage spatial data, and create maps used to present and visualize data. This course focuses on ArcGIS and how to apply GIS skills to answer research questions. GIS technology is used in a variety of disciplines including humanities, engineering, economics, environmental studies, engineering, management, urban planning, agriculture, forestry, public health, and many others.
Restrictions: Enrollment is limited to Graduate level students.

GIS 670 Special Topics in GIS (3 credits)
This course examines selected advanced graduate topics and techniques in GIS. Examples include remote sensing, location analysis, web-mapping, cartographical design, GIS programming, and the use of applications for specific majors or fields. Course content reflects needs and interests of graduate students, as well as recent trends in GIS and the job market.
Restrictions: Enrollment is limited to Graduate level students.