Undergraduate Certificate in Geographic Information Systems (GIS)

Are you interested in pursuing a career in the exciting and constantly evolving field of Geographic Information Systems (GIS)? Look no further than our Undergraduate GIS Certificate program!

Our GIS Certificate program provides students with the knowledge and skills needed to become proficient in the use of GIS software and tools, as well as the ability to analyze and interpret geospatial data.

With a GIS Certificate, you will be qualified for a wide range of careers in fields such as geospatial industry, urban planning, environmental science, natural resource management, transportation, and more. Plus, the demand for GIS professionals continues to grow, making it a smart choice for those seeking a career that offers stability and growth opportunities. The employment of GIS technologists is projected to increase by as much as 10% from 2021 to 2031, and the median salary tops $95,000 per year.

Our program offers a comprehensive and practical curriculum designed to equip you with the knowledge and skills needed to become a proficient GIS analyst. With a focus on real-world applications and hands-on experience using industry-standard software (e.g. ArcGIS; ENVI; PIX4D), you'll gain the expertise needed to stand out in today's competitive job market. Whether you're a freshman, sophomore, or senior student in any discipline, you can combine the GIS Certificate with your major, our GIS Certificate program is the perfect way to take your career to the next level.

Program Coursework

The GIS certificate is a 13-hour program consists of THREE core courses, and TWO elective courses.

- **Core Courses**

Course Number	Course Name	Crd.
SOC 2501	Introduction to Geographic Information Systems and Sciences	3
SOC 4501	Advanced Geographic Information Systems and Sciences	3
CMP SCI 3990	Undergraduate Internship	1

- **Elective Courses**

Choose one course from the following list of methods/visualization electives (3 Credits)	
GEOG 1001	Introduction to Geography (MOTR GEOG 101)
HONORS 2002	Topics in Information Literacy
SCMA 3331	Data Visualization for Business Applications
POL SCI 3350	Political Parties and Elections
CMP SCI 3411	Introduction to Data Visualization
SOC 3501	Social Mapping for Change
INFSYS 3830	Data Programming
MATH 4360	Introduction to Statistical Data Analysis for GIS
MATH 4370	Introduction to Remote Sensing Digital Image Analysis
CMP SCI 4420	Introduction to Digital Image Processing and Computer Vision
Choose one course from the following list of broadening electives (3 Credits)	
GEOG 1002	World Regions (MOTR GEOG 101)
GEOG 2001	Cultural Geography
HONORS 2020	Inquiries in the Fine and Performing Arts
HONORS 2040	Inquiries In Mathematics And Computing
POL SCI 2600	The Geography of Governance
HIST 4142	Inquiries in U.S. History
ECON 4160	Geospatial Analysis in the Social Sciences
CMP SCI 4200	Python for Scientific Computing and Data Science
PHIL 4460	Topics in Logic
SOC WK 4755	Poverty, Human Rights, and Social Justice
MGMT 5634	Sustainability Management 2

For more information, please contact the program Director, Dr. Reda Amer:

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Don't wait any longer to take the first step towards an exciting career in GIS. Enroll in our GIS Certificate program today and open the door to endless possibilities!