

# GEOSPATIAL TECHNOLOGY

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## Overview

**Degrees Offered:** Program Certificate

**Program Begins:** Fall

**Delivery Method:** Online, On Campus

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## Description

Students engage with a range of geospatial technologies to explore, analyze, and represent geographical phenomena and data through a series of field-based exercises. Students will learn about the types of societal problems that geospatial scientists are uniquely positioned to solve. Introduction to the fundamentals of Geospatial Technology, including Geographic Information Systems (GIS), Global Positioning Systems (GPS), cartography, remote sensing, mobile & web applications, drones (Unmanned Aerial Systems) and spatial analysis through a series of hands-on computer-based exercises.

Students will learn how to utilize geospatial technology to address social and environmental issues. This certificate is designed as a stackable certificate to complement other disciplines or as stand-alone certificate to gain entry-level geospatial skills. Course content is based upon the United States Department of Labor's Geospatial Technology Competency Model for entry level geospatial occupations including Geospatial or GIS Technicians and Technologists.

## Preparation

Geospatial professionals excel in collaborative environments, fostering effective communication and teamwork across diverse disciplines. They bridge knowledge gaps, translating complex spatial data into actionable insights for geologists, engineers, planners, and policymakers. Skilled problem-solvers, they navigate technical challenges and integrate disparate datasets to unlock hidden patterns in spatial information. Driven by curiosity and a tech-savvy spirit, they continuously explore innovative tools and approaches to advance the field.

## Requirements

Students who complete the curriculum requirements earn a Program Certificate. Students should be aware that they will be required to take some classes online. The program Certificate provides a core set of skills and competencies and broad knowledge of the discipline. The Program Certificate emphasizes GIS applications, remote sensing, and global navigation satellite system (GNSS).



*This program receives funding from the U.S. Department of Labor; therefore, veterans and eligible spouses receive priority of service over non-covered persons. (20 CFR 1010)*

## Career Opportunities

Geospatial proficiency is a skillset employers seek in job applicants today. Career possibilities include agriculture, healthcare, public utilities, government agencies, engineering, surveying, construction, natural resources, law enforcement, social services, archeology, environmental monitoring, city planning, education & research, transportation & logistics, retail & marketing, and more. Geospatial knowledge makes students more employable in these careers.

## Degree Plans

- Geospatial Technology Program Certificate