

GEOSPATIAL TECHNOLOGY, Certificate - 4410

Engineering & Technology Department
CIP Code: 45.0702

The Geospatial Technology certificate program provides the foundation of knowledge and skills needed for students interested in pursuing a career in geospatial technology. This program may also serve individuals, who are currently working in a field, related to Geospatial Technology, to supplement their positions. Geospatial technology is an industry requiring technicians to be skilled in data acquisition, management, interpretation, integration, analysis, representation, and graphical display, all of which are part of the curriculum. In addition, the high-technology nature of geospatial technology demands personnel who are able to work in cross-functional teams in a rapidly evolving employment setting. Students are able to gain “real-world” experience by enrolling in the internship course. This course allows students the opportunity to face the issues, challenges and projects that are encountered by geospatial technologists on a daily basis. The coursework in this program is aligned with the Geospatial Technology Competency Model (GTCM) developed by the United States Department of Labor and the GeoTech Center. The program can be completed entirely through Virtual Learning.

Career Opportunities

Graduates find employment as geographic information specialists or other disciplines related to the acquisition, use and processing of geographic and time-based data. (SOC Code: 17-1021 Cartographers and Photogrammetrists)

Link to occupational profiles on O*NET: <http://www.onetcodeconnector.org/>

Application and admission information: <http://www.hacc.edu/Admissions/Apply/index.cfm>

Competency Profile

This curriculum is designed to prepare students to:

- Apply Geographic Information System (GIS) and remote sensing theory, data acquisition, data processing, and applications
- Use GIS software packages and geospatial data processing tools
- Perform engineering, geological, and environmental applications of geospatial technologies
- Develop analytical skills, including inductive and deductive reasoning
- Communicated effectively in a geospatial environment
- Apply fundamental concepts of business applications and decision-making related to geospatial technology
- Enter the geospatial technology field prepared to face the issues, challenges, and projects commonly encountered within the industry

PROGRAM REQUIREMENTS (TOTAL CREDITS = 30)

General Education	Major Requirements		Other Required Courses	
	GIS 141 Intro to Geospatial Technology	3	CIS 140 Intermediate Database Management	3
	GIS 165 Geospatial Programming	3	MATH 202 Introduction to Statistics	4
	GIS 204 Cartographic Design	3	MGMT 227 Project Management	3
	GIS 205 Data Acquisition & Remote Sensing	4		<u>10</u>
	GIS 275 Advanced Geographic Information Systems	4		
	GIS 291 Internship in Geospatial Technology	<u>3</u>		
		20		

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part time students can complete this program by taking one or more courses each semester.

Fall Semester I		Spring Semester I	
CIS 140	3	GIS 205	4
GIS 141	3	GIS 275	4
GIS 165	3	GIS 291	3
GIS 204	3	MGMT 227	3
MATH 202	4		

Please see the College's website at <http://www.hacc.edu/ProgramsandCourses/Geospatial-Technology-4410.cfm> for the most current Gainful Employment Information.