GEOSPATIAL TECHNOLOGY TECHNICIAN

Certificate of Achievement
Career/Technical (Major Code: A1772)

The following certificate track is designed for students seeking an entry-level position as a Geospatial Technology Technician. The program introduces both geospatial concepts and applications (including Geographic Information Systems (GIS), remote sensing, and image analysis). Special emphasis is on hands-on experience with the hardware, software, and techniques employed in science, industry, and academia. All of the core courses in this certificate track are short-track (8-weeks in length) and 100% online; the internship course (GEOG 153) will take place on campus or at a private or public entity.

Geospatial Technology integrates innovative tools and techniques that enables users to view and analyze temporal and spatial information in an exciting, dynamic, and productive fashion. Ultimately, geospatial technology (including GIS, remote sensing, and image analysis) helps one solve problems by looking at data in a way that is readily understood and easily shared. Today, a significant need exists within the workforce for personnel trained as Geospatial Technology Technicians. For further information visit www.swccd.edu/~gis (http://www.swccd.edu/~gis/) or contact Professor Ken Yanow (kyanow@swccd.edu).

Program Student Learning Outcomes

- Students will be able to communicate their understanding and analysis results by making maps, writing research papers and technical reports, and developing multimedia presentations. Specifically, they should be able to demonstrate the principles of cartography and the convention of map making.
- Students will develop capabilities and technical skills to apply scientific research methods (in both natural and social sciences) to observe, collect, and process geographic data; to perform analysis based on the knowledge, theories and principles in geography; and to draw quantitative and qualitative conclusions. Specifically, they should be able to demonstrate the following: The capability to observe, collect, and process geographic data with state of the art technology, including GIS, Remote Sensing, GPS, field data collection instruments, as well as obtaining data from document and literature.
- Students should be able to demonstrate the capability to perform data analysis based on critical thinking skills and use of technical and quantitative methods, including GIS, Remote Sensing, modeling software, and statistical methods.

Gainful Employment

The U.S. Department of Education requires colleges to disclose a variety of information for any financial aid eligible program that "prepares students for gainful employment in a recognized occupation."

Students who complete this program will have acquired the necessary analytical tools to successfully secure gainful employment in the field of study.

For more information regarding the data provided for this program and what it means to you as a student, please feel free to visit our SWC Gainful Employment website at: www.swccd.edu/gainfulemployment (http://www.swccd.edu/gainfulemployment/)

Code	Title	Units
Program Requirements		
GEOG 145	INTRODUCTION TO MAPPING AND GEOGRAPHIC INFORMATION SYSTEMS (GIS)	3
GEOG 150	EXPLORING OUR WORLD-MAPS AND GEOSPATIAL SCIENCE	3
GEOG 152	GIS PROJECT DESIGN AND APPLICATIONS	3
GEOG 154	INTRODUCTION TO REMOTE SENSING	3
or PHS 154	INTRODUCTION TO REMOTE SENSING	
GEOG 155	INTRODUCTION TO IMAGE ANALYSIS	3
or PHS 155	INTRODUCTION TO IMAGE ANALYSIS	
GEOG 153	GIS INTERNSHIP	3
Total Units		**18**