

Computer-Aided Technology - Geographic Information System (Certificate)

Certificate of Mastery

Minimum of Minimum of 21 Credits credit hours

Geographic information system (GIS) technicians are in high demand. And, you could be, too, with a certificate of mastery from Oklahoma City Community College. Essentially, GIS is a computer system designed to capture, store and manipulate geographically referenced information. It allows us to view, understand, question, interpret, and visualize data in many ways that reveal relationships, patterns and trends in the form of maps, reports, and charts. Banks, media outlets, municipalities, government agencies, oil and gas companies, scientist, researchers and engineering firms use GIS. And, these entities all rely on skilled technicians to keep up with the constant changes in technology. You could be mapping the world with a certificate of mastery in GIS from OCCC.

Course Sequence

Course ID	Course Name	Credits	Type	Min Gd
Suggested Freshman 1st Semester				
CAT 1313	INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEM (GIS)	3	Major	
CAT 1323	INTRODUCTION TO GLOBAL POSITIONING SYSTEMS (GPS)	3	Major	
CS 1103	INTRODUCTION TO COMPUTERS AND APPLICATIONS	3	Major	
FA SUPPORT	FACULTY APPROVED SUPPORT ELECTIVES	3	Support	
Suggested Freshman 2nd Semester				
CS 1333	DATABASE MANAGEMENT APPLICATIONS	3	Major	
CAT 2313	INTRODUCTION TO SPATIAL ANALYSIS	3	Major	
FA SUPPORT	FACULTY APPROVED SUPPORT ELECTIVES	3	Support	

Course Grouping

Major Courses: (15 credit hours) Computer-Aided Technology: CAT 1313, CAT 1323, CAT 2313; Computer Science: CS 1103, CS 1333

General Education Courses: None

Life Skills Courses: None

Support Courses: (6 credit hours) *Electives: Faculty Approved Support Electives

Program Notes

Notes: A Certificate of Mastery program is designed to meet the needs of an individual who wants to enter the job market following the completion of the certificate.

Degree Program Course Descriptions

CAT 1313 - INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEM (GIS)

Prerequisites: Math 0103 or adequate math placement test score; ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits Students will learn fundamental concepts in Geographic Information System (GIS). The student will be introduced to introductory content on typical business and technical applications, data, software, and techniques used to accomplish GIS projects. Students receive hands-on experience with global positioning system (GPS) hardware and ArcGIS software.

Prerequisites: ENGL 0203, adequate placement score, or by meeting determined placement measures; Math 0203 or adequate math placement test score.

3 Credits The student will use a selected database management program to create and edit database files. The student will also search, organize, and build reports, forms, and templates with the database files.

FA SUPPORT - FACULTY APPROVED SUPPORT ELECTIVES

Prerequisites:

3 Credits Faculty approved support electives

CAT 1323 - INTRODUCTION TO GLOBAL POSITIONING SYSTEMS (GPS)

Prerequisites: Math 0103 or adequate math placement test score; ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits The student will demonstrate the ability to use GPS technology for collecting, processing, and analyzing spatial and non-spatial data. The student will learn and apply GPS theory and techniques through computer laboratory assignments, and field survey experiences.

CAT 2313 - INTRODUCTION TO SPATIAL ANALYSIS

Prerequisites: Math 0203 or adequate math placement test score, CAT 1313 or by evaluation. § Criteria for evaluation is in division office.

3 Credits This course is designed to expose students to various components of spatial analysis. Emphasis is placed on modeling and decision making with the use of spatial data. Upon completion, students will be able to utilize common GIS techniques to solve complex spatial problems.

CS 1103 - INTRODUCTION TO COMPUTERS AND APPLICATIONS

Prerequisites: Math 0103 or adequate math placement test score; ENGL 0203, adequate placement score, or by meeting determined placement measures

3 Credits This hands-on course affords students a basic understanding of computers and their application. Upon completion of this course, the student will be able to demonstrate the ability to use a computer operating system, an office suite, productivity tools, as well as the Internet at an introductory level. Advanced Standing is available.

CS 1333 - DATABASE MANAGEMENT APPLICATIONS