

Certificate in

Geographic Information Systems

GIS is a computer based methodology for collecting, analyzing, modeling, and presenting geographic data for a wide range of applications. The proliferation of desktop hardware and software has made these systems an important tool in our day-to-day lives. GIS information, data and the people trained in these methodologies and applications are becoming integral components in nearly every type of business and government service.

The GIS professional must be competent in integrating geography, data and systems to solve a wide range of problems for business, healthcare, insurance, law enforcement and other industries.

The Certificate in Geographic Information Systems consists of four courses totaling

84 hours of lecture and hands-on computer lab experience. The certificate graduate will receive 8.4 Continuing Education Units (CEUs).

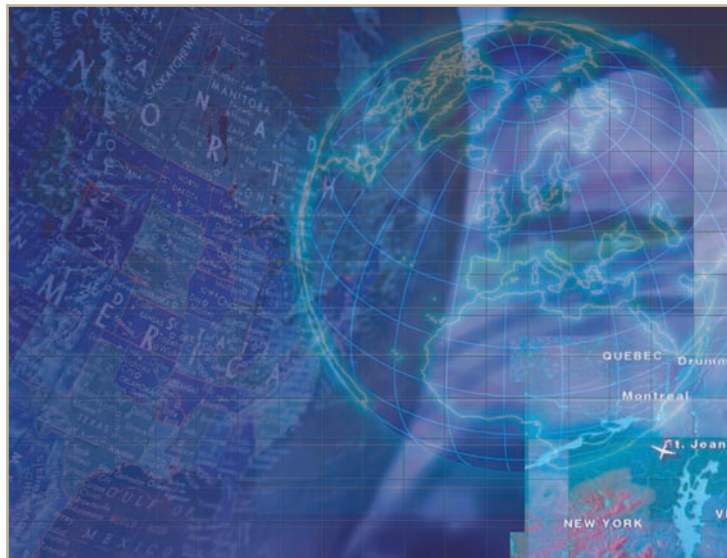
PROGRAM OBJECTIVES

Students will complete a capstone project integrating the student's GIS knowledge and skills developed over the course of the certificate. At the conclusion of the certificate program, graduates will be able to:

- Understand the key concepts and topics of GIS
- Work with the major component of a GIS including hardware, software and data
- Identify the role and functions of the GIS Specialist in both the public and private sectors
- Develop datasets, map the data, perform analysis and communicate findings.
- Understand the fundamentals of key GIS software (ArcGIS)

WHO SHOULD ATTEND?

The Certificate in GIS is appropriate for individuals seeking specialized skills training and who want to improve their knowledge of geography databases, mapping and analysis. The audience would include GIS professionals in healthcare, insurance, marketing, law enforcement, environmental fields and economic development.



Register today at www.csufextension.org or 657.278.2611

For more information, contact Rene De Leon: 657.278.8392, redeleon@fullerton.edu



California State University, Fullerton
University Extended Education
www.csufextension.org

THE CLASSES

An important component of this program is the class project which will be introduced in the first class and carried through the entire certificate program. Certificate graduates will have a completed project portfolio to demonstrate skills developed in these classes.

INTRODUCTION TO GIS (1.8 CEUS/18 HOURS)

Prerequisite: a basic working knowledge of the Windows Operating System and the Internet is highly recommended. In this class you are introduced to GIS and how it is utilized in today's world. This class will provide a comprehensive overview of GIS including the major components of hardware, software, data and the identification of the skills required of a successful GIS Specialist. You are introduced to ArcGIS software which you will be using throughout the certificate program. You will gain an understanding of the profession and examine the role and functions of the GIS specialist in a broad range of industries.

DATA: METHODS AND USES IN GIS (2.4 CEUS/24 HOURS)

Prerequisite: Introduction to GIS or equivalent experience. Using existing data you will gain an understanding of GIS database principles, the differences between spatial and arbitrary data, and sources for these types of data. Participants will learn, through hands-on experience, the process of acquiring data, assessing quality and querying that data using ArcGIS software.

GIS MAPPING: TELLING A STORY (2.4 CEUS/24 HOURS)

Prerequisite: Data: Methods and Uses in GIS, Introduction to GIS. This course continues to build on GIS concepts and methodologies utilizing the mapping process. Key cartographic terms and concepts will be introduced as you learn to develop purposeful maps for analysis and problem solving.

GIS CERTIFICATE PROJECT: PUTTING IT ALL TOGETHER (1.8 CEUS/18 HOURS)

Prerequisite: completion of the three previous courses in this program. This capstone course integrates the knowledge and skills developed over the previous required courses. You will complete and present your class project.