



NON-CREDIT PROGRAMS

GIS GEOGRAPHIC INFORMATION SYSTEMS

Program Description

GIS (Geographic Information Systems) is a computer-based tool that uses spatial (geographic) data to analyze and solve real-world problems.

This course is designed to introduce the student to the basic principles and techniques of GIS. The exercise material will emphasize GIS data collection, entry, storage, analysis, and output using ArcGIS.

Prerequisite

None.

Required Texts/Materials

Michael Law & Amy Collins. 2013. *Getting to Know ArcGIS Desktop*. Redlands, CA: ESRI Press. Third Edition, Updated for ArcGIS 10.1. ISBN 978-1589483088.

NOTE: You MUST use the edition that has been updated for ArcGIS 10.1. Make sure the ArcGIS DVD in the book is version 10.1.

Most lectures include an assigned reading that should be completed before lecture. Students should come to lectures prepared to discuss the reading assignment.

Instructional Methodology

Lecture will consist of an opening discussion, lecture, project exercise, and description of the exercise assignment relative to the weekly topic. Students will be given time to work on the exercises after the day's lecture is complete. The instructor will be available to assist students with the weekly exercise assignment.

Course Rationale

Introduction to GIS is designed to provide the students with an understanding of the methods and theories of spatial analysis that will allow students to apply GIS knowledge and skills to everyday life and their chosen careers, to apply the course towards an associate's degree at Austin Community College, and to prepare them for success in upper division courses in GIS at other institutions.



YORK COUNTY COMMUNITY COLLEGE GIS

Common Objectives

Students will learn how to compile, analyze, and present geospatial data while emphasizing the value of visual communication. Students will learn these basic geospatial concepts while working with ESRI's ArcGIS software.

By the end of this course, the student will be able to:

- Will be able to describe what geography and GIS are;
- Will understand the importance of scale, projection, and coordinate systems in GIS;
- Will understand vector and raster data structures and the appropriate use of each of these data structures;
- Will understand the basics of data capture, storage, analysis, and output in a GIS; and
- Will understand typical uses of GIS in business, government, and resource management.

FMI or to register call:
Please call 207-216-4344
or visit www.yccc.edu

Course fee: \$150 (plus cost of book)

SCHEDULE: GIS (GEOGRAPHIC INFORMATION SYSTEMS)

GIS I - 9/11 - 10/9

9/11 - Section 1

Getting to know GIS/*Chapter 1 - Intro to GIS & Chapter 2 - Intro to ArcGIS Desktop*

9/18 - Section 2

Getting Started with Maps and Data/*Chapter 3 - Exploring ArcMap & Chapter 4 - Exploring ArcCatalog*

9/25 - Section 3

Displaying data - *Chapter 5 - Symbolizing features and rasters & Chapter 6 - Classifying features and rasters*

10/2 - Section 3 (continued)

Chapter 7 - Labeling Features & Section 4 - Getting information about data - Chapter 8 - Querying data

10/9 - Section 4 (continued) *Chapter 9 Joining and Relating tables.*

GIS II - 10/23 - 11/20

10/23 - Section 5

Analyzing Feature Relationships/*Chapter 10 - Selecting Features by Location & Chapter 11 - Preparing Data for Analysis, & Chapter 12 - Analyzing Spatial Data*

10/30 - Section 5 (continued)

*Chapter 13 -Projecting Data in ArcMap & Section 6 - Getting Started with Maps and Data
Chapter 14 - Building Geodatabases & Chapter 15 - Creating Features*

11/6 - Section 6 (continued)

Chapter 16 - Editing features and Attributes

11/13 - Section 7

Presenting Data/*Chapter 18 - Making Maps from Templates & Chapter 19 - Making Maps for Presentations*

11/20 - Section 8

Modeling/*Chapter 20 - Building Models. Class ends.*

About the Instructor:

Brett Horr is a certified geospatial professional and GIS Manager for the Town of York, Maine, who has worked in the GIS field for nearly 2 decades. His duties include GIS analysis, web and mobile mapping projects, enterprise database management, IT support, and any and all GIS needs. In addition to his GIS Manager duties, Brett is a Maine State Certified Reserve Police Officer, serving as a reserve Patrolman with the York Police Department, while providing assistance with crime mapping and analysis. Brett also serves as the Secretary for the New England Arc Users Board of Directors and as a member of the Board of Directors for the New England Chapter of the Urban and Regional Information Systems Association.