

INTRODUCTION TO MAPPING AND GEOGRAPHIC INFORMATION SYSTEMS

When:	6:00 – 8:00 PM Mondays - K103 Online activities and labs
Where:	San Diego Mesa College Campus, Room K-103
Texts:	<u>Getting to Know ArcGIS Desktop, 3rd edition for ArcGIS 10</u> Ormsby, T.J.; ISBN 9781589482609 <i>Windows Operating System (OS)</i> (XP, Vista, 7, etc.) <i>Hardware requirements:</i> 1GHz processing speed, 2 GB RAM; 1.5 GB free hard disk space, including 50 MB on operating system drive, and additional 285 MD hard disk space required for exercise data.
Instructor:	Michelle Kinzel, mkinzel@sdccd.edu
Office Hours:	Monday 5:15-5:45 PM (Room K-103), or by appointment.

Course Prerequisite (Advisory): CBTE 101, ENGL 101 or ENGL 105, CBTE 114, CBTE 161 with a grade of "C" or better, or equivalent, or assessment Skill Level R6/W6.

Course Description: This course covers the origins and fundamentals of Geographic Information Systems (GIS), an essential tool in government and business. GIS uses spatial information and software to map, analyze, and model real world problems in many fields, such as forestry, homeland security, economics, biology, city planning, and health. Labs include hands-on experience with ArcGIS software. Subjects are map making, GIS data creation and management, and map projections and coordinate systems. GIS mapping is a skill needed by many who work in both the public and private sector. This course will provide the skills and knowledge to create basic spatial data and GIS maps. It also lays the foundation for students who want to be employed as a GIS Technician or who want to pursue a degree or certificate and it prepares students for entry-level careers. This course is required for the GIS certificate and the AS degree. Associate Degree Credit & transfer to CSU and/or private colleges and universities.

This course is a total of 3.00 Units (2.50 Lecture Hours and 1.50 Lab Hours). Letter Grade or Pass/No Pass Option.

Student Learning Objectives: Upon successful completion of course, students will be able to:

1. Describe GIS history, software, applications, and terminology
2. Understand spatial data creation and management
3. Evaluate, gather, and prepare data for a GIS project
4. Manipulate spatial data and create maps with ESRI ArcGIS software
5. Evaluate and present the results of a geographic study

Reading and Homework Assignments:

Weekly reading assignments are required. Course exercises from the text Getting to Know ArcGIS Desktop and ESRI Virtual Campus will be incorporated. In addition, other pertinent articles and Internet pages may be assigned during the course. Assignments must be prepared digitally and submitted (uploaded) to the course website.

A final GIS project will be required. This will include GIS mapping, data management, and/or analysis activities, as well as Course Project assignments (see below).

Note: Unless stated otherwise assignments are due at the beginning of class. Any late assignments will be docked 10% per class period. Students who miss a class must make arrangements with another student in attendance to obtain any missed class materials and/or assignments or obtain assignments from the Blackboard web site.

Web Sites and Additional Assignments:

Students may be required to visit websites for an additional assignment(s) (TBD by instructor).

Course Project: The course project will be developed over the semester and presented at the end of class, including a professional-quality presentation (PowerPoint slides) and a project paper. A brief (approximately one page) project description will be due in week six that will define a question to be addressed by the project, potential data sources, and a description of what the final map will portray. The project will include spatial data gathering and analysis, map production, and accompanying documented procedures and metadata. Further details on the project will be provided in class.

Quizzes: Two quizzes will be given: a mid-term and a comprehensive final. Tests are based on class and homework, as well as reading assignments. There will be **no make-ups** for missed tests.

Disabled Student Programs and Services: Students with disabilities should contact the Mesa College Disabled Students Programs and Services (DSPS) office. Contact information is listed on the DSPS webpage <http://www.sdmesa.edu/dsps/>

Academic Integrity: Enrollment in college classes assumes maturity, seriousness of purpose and self-discipline. Students are expected to respect and obey standards of student conduct while in class and on the campus. The student Code of Conduct, disciplinary procedure, and student due process (Policy 310, 3100.1 and 3100.2) can be found in the current college catalog in the section Academic Information and Regulations and at the office of the Dean of Student Affairs. Charges of misconduct and disciplinary sanctions may be imposed upon students who violate these standards of conduct or provisions of college regulations. Students are expected to be honest and ethical at all times in the pursuit of academic goals. Students found to be in violation of Administrative Procedure 3100.3 Honest Academic Conduct, will receive a grade of zero on the assignment or test in question and may be referred for disciplinary action in accordance with Administrative Procedure 3100.2, Student Disciplinary Procedures.

It is the student's responsibility to drop all classes in which he/she is no longer participating. Please discuss your plans to withdraw from class with the instructor as there may be other options that allow you to continue in class. It is the instructor's discretion to withdraw a student after the "drop" deadline due to excessive absences. Students who remain enrolled in a class beyond the withdrawal deadline will receive a letter grade in this class.

Important Deadlines

Add:	02-08-2013
Drop with Refund:	02-08-2013
Drop without "W":	02-08-2013
Petition Credit/NoCredit:	03-04-2013
Withdrawal:	04-12-2013

Attendance: Weekly attendance and participation in class is expected. District policy requires that a student be dropped if unexcused absences exceed 12% of total class hours and this policy will be followed.

Grading:

Quizzes (Two @ 10 % each)	= 20%	A = 90 - 100%
Homework and lab activities (10 assignments)	= 50%	B = 80 - 89%
Course Project (presentation and write-up)	= 20%	C = 70 – 79%
Class participation	= 10%	D = 60 – 69%
TOTAL	= 100%	F = < 60%

The final grade in this class will be affected by class participation, which includes attendance. Class participation includes active participation during lectures, responding to lab activities when reviewed in class, and volunteering answers to general questions in class.

It is the student's responsibility to retain all graded material. Should there be any discrepancy concerning a grade, it is the student's responsibility to produce these documents.

GISG 110 COURSE OUTLINE

<i>Class / Lab</i>	<i>Date</i>	<i>Topic</i>	<i>Lab (due next class)</i>	<i>Reading Assignment (due next class)</i>	<i>Assignment Due (today)</i>
1	1/28/13	Introduction to GISG110 and GIS	Lab 1: Introduction to ArcGIS	TEXT*, Chapters 1-3	None
2	2/4/13	GIS Software, Applications and the Internet	Lab 2 assignment: VC*: Module 1 On-line applications	Absolute/Relative Paths PDF	Lab 1
3	2/11/13	GIS Data: Part 1	TEXT, Chapter 4 LAB 3 Exercise	Web Assigned reading	Module 1 Exam; Lab 2
4	2/18/13	<i>President's Holiday – No Class</i>			
5	2/25/13	GIS Data: Part 2	VC: Module 2 VC: Module 3	VC: Module 3	LAB 3
6	3/4/13	Projections and Coordinates	TEXT, Chapter 13 LAB 5 Exercise	VC: Module 4	Modules 2, 3 Exams
7	3/11/13	Cartography, Mapping, Presenting data	TEXT, Chapter 18-19	VC: Module 5	LAB 5 Module 4
8	3/18/13	Displaying and symbolizing data, Final Project time	TEXT, Chapters 5-7	None	Project description,
9	3/25/13	MID-TERM QUIZ	MID-TERM	VC: Module 6	None
10	4/1/13	Querying Data and Selecting Features	TEXT, Chapter 8 & 10	TEXT, Chapter 9	Module 6 Exam
11	4/8/13	Working with Tables	TEXT, Chapter 9 LAB 10 Exercise	VC: Module 7	Lab 9
12	4/15/13	Preparing and Analyzing Spatial Data/Geoprocessing	TEXT, Chapter 11-12	VC: Module 8	LAB 10
13	4/22/13	Creating and Editing Data and Geodatabases	TEXT, Chapter 14-16 Lab 12 assignment:	TEXT, Chapter 17	Module 8 Exam
14	4/29/13	Georeferencing/Geocoding	TEXT, Chapter 17 LAB 13 Exercise	Job description hand-out	Lab 12
15	5/6/13	GIS careers and higher education, Final review	Lab 14 assignment: Mock Job Interview	None	LAB 13
16	5/13/13	Final Project Presentations	None	None	Lab 14 Final Project
17	5/20/13	FINAL QUIZ	FINAL QUIZ	None	None

*VC refers to ESRI Virtual Campus course: *Learning ArcGIS*; TEXT refers to course textbook Getting to Know ArcGIS Desktop (for ArcGIS 10).

Note: This course schedule is subject to change. Any schedule and/or assignment changes will be announced.