# GEOG 220 – DATA ACQUISITION & MANAGEMENT IN GIS

Antelope Valley College | Spring 2015 | 3 Units | Location: HS 253 | Time: Tues. 6:30-9:30pm

### http://avconline.avc.edu/mpesses/geog220.html

#### Instructor

Mike Pesses (661) 722.6300 x6914 mpesses@avc.edu HS 252

Office hours: MW, 11am-12:00pm; T, 1:00-2:00pm; & R, 1:00-3:00pm



## Prerequisites

Completion of Geography 205. (Advisory: Completion of MATH 101 & 102, completion of or concurrent enrollment in MATH 115, and eligibility for College Level Reading and ENGL 101.)

# Required Text

Zeiler, Michael (2010) *Modeling Our World*, 2<sup>nd</sup> Edition. (Redlands: ESRI Press) (*Recommended*) DeMers, Michael. (2008) *Fundamentals of Geographic Information Systems*, 4<sup>nd</sup> Edition. (Hoboken, NJ: Wiley)

### Course Description

This course provides a general survey of basic methods of data acquisition, database design and management for GIS. This course focuses on the specific data requirements of GIS. Students will examine methods of digitizing preexisting data and explore database development and management. Students will use their knowledge to complete GIS projects. BEFORE ENROLLING students must have the computer skills, knowledge of georeferencing, coordinate systems, processes of data capture, data management and analysis and the skills necessary to produce a GIS map gained in GEOG 205. This course is intended for Geography/GIS majors and persons using GIS in professional settings.

#### Students will be able to

- 1. Describe the components of a database system.
- 2. Digitize preexisting data & create databases for it.
- 3. Design a database and discuss methods for managing spatial data used in GIS.
- 4. Apply skills to build databases for both raster and vector formats.

### Grading Breakdown

- Participation and completion of exercises: 25%
- Take home exams: 25%
- Final project: 50%

(A = 90-100%; B = 80-89%; C = 70-79%; D = 60-69%; F = 0-59%)

#### **Policies**

- 1. Appropriate college behavior is expected. If you disrupt those around you with personal conversations during lectures you will be asked to leave. Please respect others in the class.
- 2. Attendance is expected for every class session. Come to class on time prepared to participate. Class ends at 9:30 pm.
- 3. Assigned readings must be completed prior to each class. Students should plan on spending at least one to three hours outside of class for every hour of lecture reading & reviewing assigned materials.
- 4. The prerequisites are important! I will expect college level reading, writing, and thinking throughout the class.
- 5. Only under emergency situations will make-ups be given for missed exams, and only for one week after the exam date. You must contact the instructor as soon as possible. You will only be able to make up one missed exam during the semester.
- 6. Late work will be docked 20% and can only be turned in within one week of the due date.
- 7. Students are expected to adhere to all standards of academic integrity. In particular, failure to submit independent work (i.e. plagiarism or cheating on tests) can be grounds for severe sanction including expulsion from the college. See the AVC College Catalog or Student Handbook for more information on the definition and consequences of plagiarism.
- 8. You must drop the class if you indeed intend to drop it. With the exception of missing the first week, I will not drop for you. You will receive an "F" if you simply stop showing up and fail to successfully complete any assignments or exams.
- 9. If you have a legally protected disability under the Americans with Disabilities Act (ADA) or California discrimination law, and you believe you need reasonable accommodation to participate fully in this class, please make an appointment to see me during my private office hours to discuss your need.

### SLOs

The Student Learning Outcomes (SLOs) defined for Geography courses can be found on the AVC website at:

http://www.avc.edu/administration/organizations/slo/msslos.html#geography