Semester/Year: Fall 2015

Lecture Hours: 2   **Lab Hours: 4**   **Credit Hours: 4**

Class Time: MW: 10:00-10:50 AM and **TTh**: 9:00-10:50 AM

Instructor: **Beth Wisely, PhD**
Office: TM 105
Office Phone: (307) 268-2233, ext. 2233 on-campus
Email: bwisely@caspercollege.edu

Office Hours: In person, TM 105
Monday: 2:00-3:00 p.m.
Tuesday: 2:00-3:30 p.m.
Wednesday: 11:00 a.m.-1:00 p.m.
Thursday: 2:00-3:30 p.m.

Course Description:
GEOG 1100 is an introductory course in geographic information systems (GIS) incorporating an accompanying lab session.

Statement of Prerequisites:
The student should have a working knowledge of a graphical computer user interface, such as Windows or the MAC desktop.

Course Goals:
1. Understand the fundamentals of a GIS
2. Understand the basics of geographic information, map projections, coordinate systems and scale
3. Understand how to access, search and restructure geographic information in the GIS
4. Understand basic cartographic principles

Course Outcomes:
1. Make maps with simple GIS layers
2. Identify and set map projections
3. Query attribute tables, using select by location and/or attribute
4. Create new GIS data
5. Utilize the different Raster and Vector data sets appropriately
6. Solve problems using critical thinking and creativity
7. Use appropriate technology and information to conduct research

Methodology:
This class is a combination of lecture and computer lab work. **Your instructor strongly recommends that the students work with the GIS software both in and out of the scheduled class period.**

Evaluation Criteria:
10 labs – 10 points each: 100 total points
1 quiz – 20 points: 20 total points
2 tests – 90 points each: 180 total points
Final project – 100 points: 100 total points

400 total points available
Grade A: 89-100%
Grade B: 80-88%
Grade C: 70-79%
Grade D: 60-69%
Grade F: <60%

Recommended Text, Readings, and Materials: *Getting to Know ArcGIS*, published by ESRI Press. This text is not required, just recommended. Student software will be provided.

Class Policies: Attendance is required. Please notify your instructor prior to any absences. Missing more than 5 classes may lower your course grade.

Last date to Change to audit status or to withdraw with a W Grade: Check the Casper College Academic Calendar.

Student Rights and Responsibilities: Please refer to the Casper College Student Conduct and Judicial Code for information concerning your rights and responsibilities as a Casper College Student.

Chain of Command: If you have any problems with this class, you should first contact the instructor to attempt to solve the problem. If you are not satisfied with the solution offered by the instructor, you should then take the matter through the appropriate chain of command starting with the Department Head/Program Director, the Dean, and lastly the Vice President for Academic Affairs.

Academic Dishonesty: (Cheating & Plagiarism) Casper College demands intellectual honesty. Proven plagiarism or any form of dishonesty associated with the academic process can result in the offender failing the course in which the offense was committed or expulsion from school. See the Casper College Student Code of Conduct for more information on this topic.

Official Means of Communication: Casper College faculty and staff will employ the student's assigned Casper College email account as a primary method of communication. Students are responsible to check their account regularly.

ADA Accommodations Policy: If you need academic accommodations because of a disability, please inform me as soon as possible. See me privately after class, or during my office hours. To request academic accommodations, students must first consult with the college's Disability Services Counselor located in the Gateway Building, Room 344, (307) 268-2557, bheuer@caspercollege.edu. The Disability Services Counselor is responsible for reviewing documentation provided by students requesting accommodations, determining eligibility for accommodations, and helping students request and use appropriate accommodations.

General Course Schedule: Below is a chart outlining the general course schedule for the term. Your instructor reserves the right to modify the schedule during the term as needed.

Week	Dates	Lecture	Lab
1	August 24-27	What is GIS? Definitions and history	Lab 1: Intro to ArcGIS
2	August 31-September 3	Projections: Understanding what they are, and why we need them	Lab 2: Projections
3	September 8-10	Short Quiz on Weeks 1 & 2; followed by GIS Data Types: Vector and Raster	
4	September 14-17	Geoprocessing, working with rasters	Lab 3: Vector and Raster Models
5	September 21-24	Cartography in GIS and distance analysis	Lab 4: Euclidean Allocation Tools
6	September 28 - October 1	Exam 1 on material through Week 6.	Lab 5: Making Maps with ArcGIS
7	October 5-8	Bringing data into a GIS	Lab 6: Georeferencing and Digitizing
8	October 12-15	Queries and joins	Lab 7: Performing Querries and Joins
9	October 21, 22	What is geocoding?	Lab 8: Geocoding
10	October 26-29	Global Positioning Systems Hand out final project instructions	Lab 9: GPS Exercises
11	November 2-5	Deriving data for suitability Aanalysis	Lab 10: Terrain Analysis Using Derived Rasters
12	November 9-12	Cartography supplemental	Project Abstracts Due
13	November 16-19	Exam 2 on Weeks 6-12 Final project work	
14	November 23, 24	Final project work	
15	November 30-December 3	Final project work	
16	December 7-10	Project presentations	
Finals	December 14-17	Finish project presentations, if necessary	