CASPER COLLEGE COURSE SYLLABUS

Introduction to GIS, GEOG 1100 N1

Semester/Year: Spring 2016

Lecture Hours: 2  Lab Hours: 4  Credit Hours: 4.0

Days: Online  Room: NA

Instructor’s Name: Jeff Sun

Instructor's Contact Information:
Office Phone: 268-3560
Office Number: GW 116G
Email: jsun@caspercollege.edu

Office Hours: M: 11-11:50am; W: 11-11:50am, 4-4:50pm; TH: 11-11:50; or by appointment

Course Description: An introductory course in geographic information systems (GIS) with an accompanying lab session.

Statement of Prerequisites: A working knowledge of a graphical computer user interface such as Windows or the MAC desktop. Student must have a PC or be able to come into the GIS lab (GW 210) on their own time to work on assignments.

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, query and restructure geographic information in the GIS
4. Understand basic cartographic principals

Outcomes:
1. Work with simple GIS Layers to make maps
2. Know what a projection is and how to set them
3. Know how to query using attribute tables and select by location
4. Create new GIS data
5. Know the difference between Raster and Vector data sets and when to use them
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.

Evaluation Criteria:
6 Labs – 20 points each: 120 Total Points
2 Tests – 100 points each: 200 Total Points
6 Discussions – 20 points each: 120 Total Points

440 Total Points
Grade A: 90 – 100 points
Grade B: 80 – 89.9 points
Grade C: 70 – 79.9 points
Grade D: 60 – 69.9 points
Grade F: 0 – 59.9 points

Recommended Readings, and Materials: Getting To Know ArcGIS for v 10.3

Class Policies: Grades will be based on homework, quizzes, and exams. Homework will have due dates and be subject to penalties if turned in late. Exams cannot be made up unless other arrangements are agreed upon.

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 in order to solve the problem. If you are not satisfied with the solution offered by the instructor, you should then take your problem through the appropriate chain of command starting with the department head, then the division chair, 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.

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.

Calendar or schedule indicating course content (Subject to change):

<table>
<thead>
<tr>
<th>Week#</th>
<th>Week of</th>
<th>Lecture</th>
<th>Lab</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Jan 18</td>
<td>What is GIS? Definitions and History. Install ArcGIS on personal computers</td>
<td>Lab 1. Introduction to ArcGIS Semester starts Jan. 19</td>
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<tr>
<td>2</td>
<td>Feb. 1</td>
<td>Projections: Understanding what they are and why we need them.</td>
<td>Lab 2. Projections in ArcGIS</td>
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<tr>
<td>3</td>
<td>Feb 15</td>
<td>GIS Data Types: Raster and Vector</td>
<td>Lab 3. Vector and Raster Models</td>
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<tr>
<td>Week</td>
<td>Date</td>
<td>Activity</td>
<td>Notes</td>
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<tr>
<td>4</td>
<td>Feb 29</td>
<td>Cartography in GIS</td>
<td>Lab 4. Making maps with ArcGIS</td>
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<tr>
<td>5</td>
<td>March 14</td>
<td>Exam: Topics 1-4</td>
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<tr>
<td>6</td>
<td>March 28</td>
<td>Bringing Data into a GIS, GPS</td>
<td>Lab 5. Digitizing and Georeferencing, GPS</td>
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<td>7</td>
<td>April 11</td>
<td>Suitability Analysis</td>
<td>Lab 6. Suitability Analysis</td>
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<tr>
<td>8</td>
<td>April 25</td>
<td>Final Exam</td>
<td>Final Exam</td>
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