Semester/Year: Spring 2016

Lecture Hours: 2.0   Lab Hours: 2.0   Credit Hours: 4

Additional Time Outside of class to be assigned

Class Time: 5-8:50pm   Days: Wednesday   Room: GW 210

Instructor’s Name: Jeff Sun

Instructor’s Contact Information:
Office Phone: 268-3560
Office: 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: This course addresses strategies for successful GIS management and implementation in an organization-wide context and is organized around three primary issues: implementation planning, data management, and GIS problem solving in the workforce

Statement of Prerequisites: Geog 1100

Goals 1. Students will design and implement a GIS based project that includes relevant analysis and evaluation techniques.
2. Students will apply database models for GIS to solve geographical problems

Outcomes: 1. Students will recognize the development and implementation of GIS in a variety of geographical projects.
2. Students will evaluate database design and management in GIS applications.
3. Solve problems using critical thinking and creativity
4. Use appropriate technology and information to conduct research

Methodology: Lecture/Lab combination

Evaluation Criteria: Grading Criteria:
10 Labs – 10 points each: 100 Total Points
2 Tests – 100 points each: 200 Total Points
Final Project – 100 points: 100 Total Points
400 Total Points

A  90-100%
B  80-89%
C  70-79%
D 60-69%
F <60%

Required Text, Readings, and Materials: Provided in Class.

Class Policies: Students are expected to attend lecture and lab. There will be no make up for exams. Loss of points will result in homework or labs not turned in on time. Student will receive 3 free tardies. If late to class after 3 the student will be docked 5 points every time they are late. Student will also get 3 free absences, after 3 the student will be docked 10 points for absences unless other arrangements are made.

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:

<table>
<thead>
<tr>
<th>Week of</th>
<th>Date</th>
<th>Topic</th>
<th>Lab</th>
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</table>
| 1       | Jan 20 | Acquiring Digital Data
Types of Data | Lab 1. Data familiarization |
| 2       | Jan 27 | Creating Digital Data
Importing tabular data
Manual entry of data | Lab 2. Tabular Data |
| 3       | Feb 3  | Managing Digital Data
Data collection techniques
Organizing data | Lab 3. GeoDatabases |
| 4       | Feb 10 | Setting up Domains and Relates
in GeoDatabases | Lab 4. Domains and Relates |
<p>| 5       | Feb 17 | Exam 1: Weeks 1-4                         |             |</p>
<table>
<thead>
<tr>
<th>Date</th>
<th>Course Title</th>
<th>Lab/Note</th>
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<tbody>
<tr>
<td>6 Feb 24</td>
<td>Watershed Analysis</td>
<td>Lab 5. Hand Digitizing Watersheds</td>
</tr>
<tr>
<td>7 March 2</td>
<td><em>Watershed Analysis</em></td>
<td>Lab 6. GIS Created Watersheds</td>
</tr>
<tr>
<td>8 March 9</td>
<td><em>Remote Sensing</em></td>
<td>Lab 7. Working with RS data in ArcGIS</td>
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<tr>
<td>9 March 16</td>
<td>Spring Break – No Class</td>
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<tr>
<td>10 March 23</td>
<td>Exam 2: Weeks 6-9</td>
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<tr>
<td>11 March 30</td>
<td><em>GIS and the Workplace</em></td>
<td>Lab 8. Modeling 3D Worlds</td>
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<tr>
<td>12 April 6</td>
<td><em>GPS Exercise</em></td>
<td>Lab 9. Working with GPS on Smart Phones</td>
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<td>13 April 13</td>
<td>Working with GPS</td>
<td>Lab 10. Trimble Units</td>
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<tr>
<td>14 April 20</td>
<td>GIS project</td>
<td>GIS Project</td>
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<tr>
<td>15 April 27</td>
<td>GIS project</td>
<td>GIS project</td>
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<tr>
<td>16 May 4</td>
<td>Hand in GIS Project</td>
<td>Hand in GIS project</td>
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