CONCEPTS AND CAREERS IN GIS, GISC1125-23420

Day/Time:      Lectures: Online course.
Location:      eCampus SP2014 GISC-1125

Professor:    J. Scott Sires
Office:        EMGI H115
Office phone:  972-860-4362
Office hours: Monday  None
               Tuesday 12:20 p.m. – 3:20 p.m.
               Wednesday 4:30 p.m. – 6:30 p.m.
               Thursday None
               Friday   None
Email:         ssires@dcccd.edu

Lab Coordinator:  Jerry Bartz
Office:         EMGI H105
Office phone:   972-860-4796
Open Lab:       M T W R, 9:00 a.m. to 5:00 p.m.
Email:          gbartz@dcccd.edu

Textbooks:     None      Online content and web-available materials will be used.

COURSE INFORMATION

Number:      1125  Section: 23420  Credit Hours: 1
Description: Introduction to basic Geographic Information Systems (GIS) operations, including file management and data transfer. Students will also learn about the ways in which GIS is used in different fields including business, government, and scientific analysis. Presentations will be made by GIS professionals about career possibilities.

Prerequisites:  None

Learning Outcomes:
This course will provide the student with the career-focused concepts of Geographic Information Systems (GIS). By completing this course, students will:

Organize file structure (e.g. create directories, perform data and directory housekeeping). TSSB KA7.2
Research and explain a practical understanding of GIS concepts and applications.
Discuss and apply the technical language of GIS.
Discuss and validate the history and purpose of GIS.
Install and maintain software including service packs. TSSB KA8.2
Explain the history, purpose and elements of a map and apply the minimum required map elements. Create maps. TSSB KA5.1
Distribute digital and/or hard copy products. TSSB KA5.6
Evaluate maps and related purpose. Interpret data results. TSSB KA4.7
Create data supplement materials. Create analysis reports. TSSB KA5.2, Create tables. TSSB KA5.3 and Create charts. TSSB KA5.4
Complete a national certification process.
Create formal and informal communications using email, phone, listservs and written reports. TSSB KA9.1
Research and explain GIS job titles and positions.
Validate GIS career metrics for the DFW Metro, North Texas OR Texas area. Generate descriptive and spatial statistics. **TSSB KA4.5**

Research local area professional associations and report related career benefit. **TSSB KA9.5**

Participate in GIS awareness events such as presentations, conferences and user groups.

Continue professional education through credit and/or noncredit courses, technical training and informal education, such as online courses. **TSSB KA10.2**

Outline: 17-week semester calendar with weekly content delivered via eCampus. The course will be primarily discussions about the geospatial technologies industry.

<table>
<thead>
<tr>
<th>Week number</th>
<th>Date</th>
<th>Topic of Study</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>1/21</td>
<td>Introductory Concepts, Terms &amp; Acronyms, and General Discussion. <em>What is GIS, its history and its purpose?</em></td>
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<tr>
<td>2</td>
<td>1/27</td>
<td>Discuss Spatial-significance. <em>What is happening in our community today?</em> Geospatial current event article review (GIS in our everyday lives).</td>
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<tr>
<td>3</td>
<td>2/03</td>
<td><em>What are other people ‘saying’ with GIS? What is the purpose of a map?</em> Review of 3 maps and student interpretations.</td>
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<tr>
<td>4</td>
<td>2/10</td>
<td>GIS informational websites: review and student preferences (Accessibility to GIS info). <em>What GIS information can a person find on the web?</em></td>
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<tr>
<td>5</td>
<td>2/17</td>
<td>GIS job websites: metrics for the DFW and/or North Texas market. <em>(Macro perspective of market.)</em> <em>What GIS job information can be found?</em></td>
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<tr>
<td>6</td>
<td>2/24</td>
<td>GIS job announcements (3) survey and report. Perspectives of GIS job announcements. <em>What do you, the student, like most and why?</em></td>
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<tr>
<td>7</td>
<td>3/03</td>
<td>GIS career review and prioritize overarching requirements. <em>What skills are needed most, least and the student’s impressions?</em></td>
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<tr>
<td>8</td>
<td>3/10</td>
<td>SPRING BREAK WEEK</td>
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<tr>
<td>9</td>
<td>3/17</td>
<td>Mid Term Exam</td>
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<tr>
<td>10</td>
<td>3/24</td>
<td>Professional associations review. <em>What are they good for?</em> Revise GIS job resume.</td>
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<tr>
<td>11</td>
<td>3/31</td>
<td>Industry Visitor. <em>What do people already in the industry have to say?</em></td>
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<td>12</td>
<td>4/07</td>
<td>Geospatial Career Pathways. <em>How do we develop our own pathway?</em></td>
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<tr>
<td>13</td>
<td>4/14</td>
<td>Geospatial Technology Education in all its forms and styles. Long-term, short-term, for-credit and continuing ed. Professional development.</td>
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<tr>
<td>14</td>
<td>4/21</td>
<td>GISC program review. GISC application. Continues week 13 lesson.</td>
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<tr>
<td>15</td>
<td>4/28</td>
<td>Free GIS (online mapping tools and technology) and cool stuff to do with it.</td>
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<tr>
<td>16</td>
<td>5/05</td>
<td>Making a map online. Telling stories with maps.</td>
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<tr>
<td>17</td>
<td>5/12</td>
<td>Final Exam.</td>
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**Recommendations:**
- Industry periodicals and web-sites as mentioned throughout the course.
- Acquire a storage device.
- Ask for help before due dates and before test dates.

**Assessments:**
- Discussion Board participation 10%
- Exams of lecture material (1 midterm and 1 final) 40%
Weekly Reports & Exercise products 50%

Attendance: You are required to participate in all classes online via eCampus, and to participate in the discussion forum as required also via eCampus at ecampus.dcccd.edu.

ADA Statement: If you are a student with a disability and/or special needs who requires accommodations, please contact the college Disability Services Office.

Religious Holidays: Absences for observance of a religious holy day are excused. A student whose absence is excused to observe a religious holy day is allowed to take a make-up examination or complete an assignment within a reasonable time after the absence.

Academic Dishonesty: Scholastic dishonesty is a violation of the Code of Student Conduct. Scholastic dishonesty includes, but is not limited to, cheating on a test, plagiarism, and collusion. As a college student, you are considered a responsible adult. Your enrollment indicates acceptance of the Dallas County Community Colleges Code of Student Conduct published in the Dallas County Community Colleges Catalog. https://www1.dcccd.edu/cat0506/ss/code.cfm

Pay specific attention to Pages 3 of 5 and 4 of 5 of the STUDENT RIGHTS AND RESPONSIBILITIES, STUDENT CONDUCT, item number 11 defines how we define cheating.

Withdrawal Policy: If you are unable to complete this course, it is your responsibility to withdraw formally. The withdrawal request must be received in the Registrar’s Office by Thursday, April 17, 2014. Failure to do so will result in your receiving a performance grade, usually an “F”. If you drop a class or withdraw from the college before the official drop/withdrawal deadline, you will receive a “W” (Withdraw) in each class dropped.

Six Drop Issue: STOP BEFORE YOU DROP

For students who enrolled in college level courses for the first time in the fall of 2007, Texas Education Code 51.907 limits the number of courses a student may drop. You may drop no more than 6 courses during your entire undergraduate career unless the drop qualifies as an exception. Your campus counseling/advising center will give you more information on the allowable exceptions. Remember that once you have accumulated 6 non-exempt drops, you cannot drop any other courses with a “W”. Therefore, please exercise caution when dropping courses in any Texas public institution of higher learning, including all seven of the Dallas County Community Colleges. For more information, you may access: https://www1.dcccd.edu/coursedrops

Repeating this course: Effective for Fall Semester 2005, the Dallas County Community Colleges will charge additional tuition to students registering the third or subsequent time for a course. All third and subsequent attempts of the majority of credit and Continuing Education/Workforce Training courses will result in additional tuition to be charged. Developmental Studies and some other courses will not be charged a higher tuition rate. Third attempts include courses taken at any Dallas County Community Colleges since the Fall 2002 Semester.

Geo Lab Policies: Food IS allowed in the Geo lab but you take responsibility for any property damage that results from your food or drink; regardless of how the damage
occurred. Drinks ARE allowed in the classroom, WITH TIGHT FITTING LIDS ONLY, but you take responsibility for any property damage that results from your food or drink; regardless of how the damage occurred. With respect to any food you consume in lab, the cleanliness of our lab is also your responsibility. Your PC and desk are your responsibility; please keep them clean so we all benefit from the best environment.

Cell Phones are to be silent at all times within the lab. Cell phones are not to be used during class lecture nor can they used during labs. **Cell phones and pagers are no longer allowed in the Testing Center.**

Behavior unacceptable to the instructor will result in removal of the student from class.

Copy of ArcGIS – provided by BHC. Send a postage paid envelope to Scott or Jerry, make sure it is already addressed. We will return the DVD. Or, even better, drop by the GIS Lab (H-105) to pick up your copy.

**If you are receiving Financial Aid grants or loans, you must begin attendance in all classes. Do not drop or stop attending any class without consulting the Financial Aid Office. Changes in your enrollment level and failing grades may require that you repay financial aid funds.**

**COURSE EDUCATIONAL OBJECTIVES**

1. Understand and apply methods and appropriate technology to the study of the geospatial technologies.
2. Recognize geographic and quantitative methods and the differences between these approaches and other methods of inquiry and to communicate findings, analyses, and interpretation both orally and in writing.
3. Identify and recognize the differences among competing geographic theories.
4. Demonstrate knowledge of the major issues and problems facing geospatial technologies, including issues that touch upon ethics, values, and public policies.
5. Demonstrate knowledge of the interdependence of geospatial technology and their influence on, and contribution to modern culture.

**COURSE INTELLECTUAL COMPETENCIES**

1. Reading – The ability to analyze and interpret a variety of printed materials – books, documents, and articles.
2. Writing – The ability to produce clear, correct and coherent prose adapted to purpose, occasion and audience.
3. Speaking – The ability to communicate orally in clear, coherent and persuasive language appropriate to purpose, occasion, and audience.
4. Listening – Analyze and interpret various forms of spoken communication, possess sufficient literacy skills of writing, and reading.
5. Critical Thinking – Think and analyze at a critical level.

Right to Change syllabus: The instructor reserves the right to amend this syllabus as necessary.