CARTOGRAPHY
SURV 2210

Class Hours: 2.0          Credit Hours: 3.0
Laboratory Hours: 3.0     Revised: Spring 2011

Catalog Course Description:

Combines cartographic principles with GIS technology and practice to provide students with experience in creating their own finished maps. Students learn to prepare their own maps by using GIS mapmaking tools using a variety of vector and raster data. Emphasis is given to the understanding of map source data and the quality of finished GIS cartographic products. Large format finished cartographic products are required as class projects.

Entry Level Standards:

Students should have mathematics, writing, and verbal skills at the college level.

Prerequisites:

SURV 2200

Textbook(s) and Other Course Materials:


I. Week/Unit/Topic Basis:

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<tr>
<th>Week</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td>Introduction</td>
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<td></td>
<td>LAB: getting used to mapping software</td>
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<td>2</td>
<td>Basic geodesy</td>
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<td>LAB: Comparison of datum</td>
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<td>3</td>
<td>Map projections</td>
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<td>LAB: Comparison of map projections</td>
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<td>4</td>
<td>Scale, reference and coordinate systems</td>
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<td></td>
<td>LAB: Scale, UTM and State Plane</td>
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<td>5</td>
<td>Cartographic design</td>
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<td>LAB: Present a map - 1</td>
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<td>6</td>
<td>Color and lettering</td>
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<td>LAB: Present a map - 2</td>
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Midterm review
LAB: Midterm exam

Critique midterm
LAB: Critique midterm

Thematic maps, statistical processing and classification
LAB: Examine the nature of data

Thematic map: Proportional symbol map
LAB: Present a city population map

Thematic map: dot density map
LAB: Make a dot density map

Thematic map: choropleth map
LAB: Create a county minority population map

Simple map analysis
LAB: Spatial distribution of Olympic medals

Spatial display of politics and economics

Final Exam

II. Course Goals*:

The course will:

A. Expand the student’s understanding of the basic elements of a map. I, II, IV
B. Build the skills to comprehend cartographic design. I, II, IV
C. Build the skills to know when and how to make symbol maps, dot density maps and choropleth maps. I, II, IV

*Roman numerals after course objectives reference goals of the Engineering Technology program.

III. Expected Student Learning Outcomes*:

The student will be able to:

1. Demonstrate ability to use ArcGIS to create cartographic products. A, B
2. Design a cartographic product. A, B & C
3. Create large format output. A, B
4. Use design principles in creating cartographic products. A, B & C
5. Demonstrate understanding of design principles in planning cartographic products. A, B & C

* Capital letters after Expected Student Learning Outcomes reference the course goals listed above.

IV. Evaluation:
A. Testing Procedures: 50 - 60% of grade

Exams:
Two exams will be given. Exams are true-false, multiple choice, matching, short answer/essay.
When a student misses an exam due to illness, he must contact the instructor immediately upon return and make-up the exam within one week.

Quizzes:
Quizzes may be given by the instructor. Most quizzes will be un-scheduled and randomly given. They cover the previous session's materials or the reading assignment for that day. There is no make-up or extra credit given for quizzes missed.

B. Laboratory Expectations: 30% of grade

Students will be assigned group and/or individual projects. The ability to work with others, the ability to make efficient use of equipment, and the level at which students perform will contribute to the grade.

C. Field Work:
N/A

D. Other Evaluation Methods: 10 - 20% of grade

Homework:
Students may also be required to hand in answers to select questions at the end of each chapter or other appropriate homework at the instructor's discretion. All written assignments must be handed in on 8 ½” x 11” paper with smooth edges, or forms provided by your instructor. All written assignments will be assessed a 10% penalty for each school day it is late. All student work submitted for evaluation may be retained by the instructor.

E. Grading Scale:

CLASSROOM (50-60%)
Final grades will be computed from the grades obtained on homework, quizzes and examinations as follows:
Quizzes & Homework = 20% - 25%
Examinations = 20% - 25% Each
LAB (40-45%)
Final grades will be determined by grades obtained on lab assignments and skills tests. Each assignment is graded on completeness, accuracy and graphic representation of data.

Grades are based on the following:
90 - 100  A
85 - 89  B+
80 - 84  B
75 - 79  C+
70 - 74  C
60 - 69  D
Below 60  F

V. Policies:

A. Attendance Policy:
Pellissippi State expects students to attend all scheduled instructional activities. As a minimum, students in all courses (excluding distance learning courses) must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course. Individual departments/programs/disciplines, with the approval of the vice president of the Learning Division, may have requirements that are more stringent. In very specific circumstances, an appeal of the policy may be addressed to the head of the department in which the course was taken. If further action is warranted, the appeal may be addressed to the vice president of the Learning Division.

B. Academic Dishonesty:

Academic misconduct committed either directly or indirectly by an individual or group is subject to disciplinary action. Prohibited activities include but are not limited to the following practices:
• Cheating, including but not limited to unauthorized assistance from material, people, or devices when taking a test, quiz, or examination; writing papers or reports; solving problems; or completing academic assignments.
• Plagiarism, including but not limited to paraphrasing, summarizing, or directly quoting published or unpublished work of another person, including online or computerized services, without proper documentation of the original source.
• Purchasing or otherwise obtaining prewritten essays, research papers, or materials prepared by another person or agency that sells term papers or other academic materials to be presented as one’s own work.
• Taking an exam for another student.
• Providing others with information and/or answers regarding exams, quizzes, homework or other classroom assignments unless explicitly authorized by the instructor.
• Any of the above occurring within the Web or distance learning environment.

C. Accommodations for disabilities:

Students who need accommodations because of a disability, have emergency medical information to share, or need special arrangements in case the building must be evacuated should inform the instructor immediately, privately after class or in her or his office. Students must present a current accommodation plan from a staff member in Services for Students with Disabilities (SSWD) in order to receive accommodations in this course. Services for Students with Disabilities may be contacted by going to Goins 127, 132, 134, 135, 131 or by phone: 539-7153 or TTY 694-6429. More information is available at www.pstcc.edu/departments/swd/.

D. Other Policies:

Use of Equipment:
Any act of misuse, vandalism, malicious or unwarranted damage or destruction, defacing, disfiguring, or unauthorized use of property/equipment belonging to Pellissippi State is subject to disciplinary sanction.