GIS 53 Course Outline as of Fall 2009

CATALOG INFORMATION

Dept and Nbr: GIS 53 Title: CARTOGRAPHY IN GIS
Full Title: Cartography in Geographic Information Systems (GIS)
Last Reviewed: 2/22/2016

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	2.00	17.5	Lecture Scheduled	35.00
Minimum	3.00	Lab Scheduled	3.00	17.5	Lab Scheduled	52.50
		Contact DHR	0		Contact DHR	0
		Contact Total	5.00		Contact Total	87.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 70.00 Total Student Learning Hours: 157.50

Title 5 Category:	AA Degree Applicable
Grading:	Grade Only
Repeatability:	33 - 3 Enrollments Total
Also Listed As:	
Formerly:	

Catalog Description:
This course provides training in the knowledge of cartographic principles and the skills to implement these principles when creating a map within a Geographic Information Systems (GIS). It assists students in preparation for a career within the field of GIS. It is designed for those students who wish to produce maps which clearly communicate the results of GIS data and analysis.

Prerequisites/Corequisites:
Course Completion of GIS 51 OR Course Completion of APTECH 54B (or CEST399.54)

Recommended Preparation:

Limits on Enrollment:

Schedule of Classes Information:
Description: This course provides training in the knowledge of cartographic principles and the skills to implement these principles when creating a map within a Geographic Information System (GIS). It assists students in preparation for a career within the field of GIS. It is designed for those students who wish to produce maps which clearly communicate the results of GIS data

and analysis. (Grade Only)
Prerequisites/Corequisites: Course Completion of GIS 51 OR Course Completion of APTECH 54B (or CEST399.54)
Recommended:
Limits on Enrollment:
Transfer Credit: CSU;
Repeatability: 3 Enrollments Total

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	**Area**			Effective:	Inactive:
CSU GE:	**Transfer Area**			Effective:	Inactive:
IGETC:	**Transfer Area**			Effective:	Inactive:
CSU Transfer:	Transferable	Effective:	Spring 2009	Inactive:	Fall 2021
UC Transfer:		Effective:		Inactive:	

CID:

Certificate/Major Applicable:
Both Certificate and Major Applicable

COURSE CONTENT

Outcomes and Objectives:
Upon completion of this course, the student will be able to:
1. Create a map with clear purpose and objectives.
2. Design a map using effective fonts.
3. Use proper label placement of text to improve the interpretation of a map.
4. Implement proper color mixing using tools provided within a GIS.
5. Use color to create a more easily understood map.
6. Create custom map symbols for use within GIS.
7. Apply notation to facilitate proper interpretation of a map.
8. Create graphical representation to allow data to be displayed multiple ways.
9. Evaluate and critique maps created by others.
10. Repeating students will gain enhanced skills and proficiencies through learning and applying methodologies and tools from updated and upgraded versions of the software.

Topics and Scope:

1. Map design
   a. Introduction to map design
   b. Map design for intended audience and viewing media
   c. Evaluate and critique maps designed by others
   d. Create a layout
   e. Export maps, including raster and vector exports to web

2. Type Basics
   a. The elements of type

b. Fonts within Windows OS
c. Font families
d. Type effects, including callouts, shadows and halos

3. Type in map design
a. Text types in a map
b. Label placement

4. Color basics
a. Color perception
b. Color systems
c. Mix colors

5. Color usage within maps
a. Color conventions in mapping
b. Color schemes
c. Color constraints

6. Symbolization on the map
a. Apply existing symbols to the map
b. Create custom point, line, polygon/area and other symbols on the map

7. Map elements
a. What are map elements
b. Apply map elements to overall design
c. Create custom elements

8. Cartographic representation
a. Define cartographic representations
b. The benefits of using representations
c. Create cartographic representations

9. With repeat: Updated versions of software - methodologies and tools.

Assignment:

1. Read approximately one chapter of the textbook per week
2. Bi-weekly lab assignments using GIS technology
3. Create GIS map
4. Midterms: 2
5. Final exam
6. Repeating students will gain enhanced skills and proficiencies through learning and applying methodologies and tools from updated and upgraded versions of the software.

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

None, This is a degree applicable course but assessment tools based on writing are not included because problem solving assessments are more appropriate for this course.	Writing 0 - 0%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Weekly lab assignments	Problem solving 20 - 40%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Create GIS map	Skill Demonstrations 40 - 60%

Exams: All forms of formal testing, other than skill performance exams.

Multiple choice, completion, true-false, short answer	Exams 20 - 40%

Other: Includes any assessment tools that do not logically fit into the above categories.

None	Other Category 0 - 0%

Representative Textbooks and Materials:
Brewer, Cynthia A., Designing Better Maps: A Guide for GIS Users, 1st ed., ESRI Press, Redlands, California: 2005