Cartography & Graphics
UST 403, UST 503, or PDD 503  Spring 2009

Instructor- Jim Wyles  Work Phone- 216-687-2221
Office- UR18  Office Hours- 5 pm to 6 pm Tue.
Email j.wyles@csuohio.edu  or by appointment

Objectives:
This course will demonstrate how maps are important and very powerful tools for presentation. Focus will be placed on understanding the purpose served by maps, their design and analysis. Students will evaluate maps from the World Wide Web and create maps using computer mapping software. MapInfo, a Geographic Information Software (GIS), will be used to create nominal and choropleth maps. Also, graphing geographic attribute data will be completed using Excel software. This course is recommended for those students who wish to enroll in the Introduction to GIS course, UST 434.

Required Text Readings:
Mapping: Ways of Representing the World by D. Dorling and D. Fairborn ISBN 0582289726
How to Lie with Maps by Mark Monmonier ISBN 0226534219

Assignments and Grading:
1. Lab Assignments ..................................................(25%)
2. Midterm Test ..................................................(25%)
3. Final ........................................................(25%)
4. Project ........................................................(25%)

Grading Scale:  A    92.51 to 100  C+  77.51 to 79.50
A-  89.51 to 92.50  C   69.51 to 77.50
B+  87.51 to 89.50  D   60 to 69.50
B   82.51 to 87.50  F   < 60
B-   79.51 to 82.50

The Midterm and Final Exam will be based on lecture notes and assigned text reading.

Topics to be Covered:  Lecture topic in bold; Assigned reading in ( ). Reading abbreviations-DF= Dorling and Fairborn Mapping Text and M= Monmonier How to Lie with Maps
Note: All Lab work is due at the beginning of the next class.

1. January 19: Introduction to Course
Lab- Create a web-based portfolio to showcase your work. No grade, but student will use to post all assignments.

2. January 26: **Maps Defined- Mental Maps** (DF Introduction; M Forward, Ch. 1- Introduction)
   *Lab*- Create a mental map
   Create a cartographic map using MapQuest (Web mapping)

3. February 2: **Maps Defined- Cartographic Maps** (DF Ch. 2; M Ch. 2, 3, & Appendix)
   *Lab*- Create maps using various map projections using a website mapping software.

4. February 9: **History of Cartography- “The Short Version”** (DF Ch. 1, 4)
   *Lab*- Locate an “old” map on the web & explain its use and cultural influence

5. February 16: **Maps on the CSU Library Website** Presentation by Bill Barrow
   *Lab*- Exercise using CSU Library website maps

6. February 23: **Computer Mapping & GIS** (DF Ch. 7, 9; M Ch. 12)
   *Lab*- Create a general reference map using MapInfo GIS software & MS Paint software

8. March 2: **MIDTERM EXAM**

9. March 9: **Spatial Data & Associated Attribute Data** (DF Ch. 3, 5, 6- pp.102-109, 8)
   *Lab*- From x,y data in a database, create a new point data layer and map in MapInfo
   Download Census Data to Excel spreadsheet

9. March 16: **Spring Recess- No Class**

10. March 23: **Graphing Attribute Data** (M Ch. 10)
    *Lab*- Graphing Census Data using Excel

11. March 30: **Map Design Issues** (M Ch. 4 – 6, 11)
    *Lab*- Create a multi- layered data map using proper design in MapInfo.
    Create a thematic ranged map using web “color brewer” and MapInfo.

12. April 6: **Map Design for Purpose & Media**
    *Lab*- Create a Map for Purpose & Media

13. April 13: **Map Use: Accuracy, Analysis, and Interpretation** (M Ch. 7 –9, 13)
    *Lab*- Analyze and interpret 2 maps; Create an “improved” map in MapInfo

14. April 20: **Project Description**
    *Lab*- Open lab time to begin Project work

15. April 275: **Project Work- Lab**

16. May 04: **Project Presentations**

17. May 11: **FINAL EXAM**
GIS Project:

Each student will be assigned a county within the United States. Tasks for the project will include:
- Download data from the Web
- Create 2 different graph types of the downloaded data.
- Student will explain the graphs, including objective of the graph as well as graph interpretation and analysis.
- Create a reference map and 2 thematic maps that include a legend, title, north arrow, source and prepared by.
- Student will explain the maps, including objective of the map as well as map interpretation and analysis.
- A Power Point presentation of the graphs and maps will be created and presented to the class.
- Graphs, maps, and the Power Point will be placed into student’s website

Cartography Lecture and Lab Assignments:

To view the instructor’s cartography webpage (so that you can print lectures and lab assignments):

Start an Internet browser, Mozilla or Internet Explorer.

In the URL box, type http://urban.csuohio.edu/~wyles/cartography.htm

To view the lecture or lab-
Select the lectures and lab assignments and then select file> print

The reading assignments are located in the syllabus. You are responsible for determining the reading assignment for the next class. Questions based on reading will be “fair-game” on the Mid-Term and Final.

Students with Special Needs:

Educational access is the provision of classroom accommodations, auxiliary aids and services to ensure equal opportunities for all students regardless of their disability. Any student who feels he or she may need an accommodation based on the impact of a disability should contact the Office of Disability Services at (216)687-2015. The Office is located in UC304. Accommodations need to be requested in advance and will not be granted retroactively.