Syllabus – Geography 312, Cartography

Lecture: 9:30-10:15 Tuesday and Thursday in room MS 321
Labs: Thursday 11-1:45pm (lab A) **OR** 2:00-4:45pm (lab B) MS 222.
Spring: 2011
Instructor: Cassandra (Cassie) Hansen

Contact information:
Email: cassie.hansen@gmail.com (please put Geog 312 in the email title)
Office hours and days: Thursday between lab 1 and lab 2 or by appointment.

TA: Kerry Rohrmeier: krohrmeier@gmail.com (Lab A)
Office hours: W 3-4pm in computer lab (MS 222) or by appointment

Course Description:
GEOG 312. Cartography [3]. Apply color map design principles to GIS and desktop mapping programs. Select appropriate map projections, classification intervals/limits, colors, patterns. Intricacies of generating predictable, press-ready process color composites. Weekly: 3 hrs lecture, 3 hrs lab.
This is an applied techniques course that includes a number of practical exercises in which students apply cartographic visualization and map design principles through GIS and illustration software programs, the selection of appropriate map projections, data classification, color, visual variables, charts, graphs and diagrams. Mapping/graphic software will include ESRI's ArcGIS 10 and Adobe Illustrator CS4. This course fulfills a technique elective within the mapping sciences and utilizes lecture, lab, and discussions.

Required text:
Borden Dent, J. Torguson and T. Hodler. *Cartography – Thematic Map Design,* Sixth Edition. WCB/McGraw-Hill, 2009. ISBN: 978-0-07-294382-5.

Other necessary equipment:
USB Flash drive **and/or** external hard drive.

Topical Syllabus:

Cartographic visualization	Base map compilation
Thematic mapping	Symbolization
Sources of spatial data	Charts, graphs, and diagrams
Map composition and design	Principles of color
Typography and lettering	Qualitative data
Quantitative data	Visual variables—Point, Line, Area, Volume
Visual hierarchy	Measurement levels
Map projections	Geographic data ordering and processing
Map scale	Generalization

Learning Objectives:

In this course we examine the theory and practice of cartography, survey the field of thematic mapping, and apply mapmaking principles and techniques through laboratory exercises. Particular emphasis is placed on data preparation for mapping and the suitability of specific cartographic displays for data analysis and communication. This course explicitly contributes to students' acquisition of skills and knowledge relevant to **UNR.**

Course Requirements and Expectations:

Attend class on time and participate in discussions.
Complete assigned readings before class.
Students can expect to spend two hours a week on readings, exercises and projects outside of scheduled lecture and laboratory times.
Adhere to UNR's online Student Handbook.
Contact the instructor immediately if you are having problems with the class.

Grading information:

Attendance is recorded for all class meetings. Students with four absences or less will be rewarded with 5% "A" towards the overall course grade. Students with five or more absences will not have their course grade further penalized. Not regularly attending classes has its own negative effects.

Exercises:

Maps constructed in this course are graded on the appropriateness of their design to a stated purpose and audience. Exercises are to be handed in for grading on the due date. Late exercises will receive a reduced grade based on lateness. If you feel that a particular grade does not reflect your efforts, you should discuss your concerns with Cassie.

Final Project:

All students will complete, with instructor approval, a final cartographic poster display. Each student will choose a quantitative theme, acquire data, and create a cartographic poster display incorporating appropriate map(s), charts/graphs, imagery and text. This display is designed for your intended audience and purpose. If you can use the data and display for a project in another course… all the better! The final project grade will be determined by the appropriateness of your display for the stated purpose and audience while demonstrating your mastery of principles and techniques covered throughout the course.

Examinations:

Three short-answer essay examinations will be given during the term. Time for review and asking questions is scheduled before each exam. Make-up exams are given only in emergency situations or when arranged in advance of the exam date. **Final Examination: 7-9pm, Tuesday, May 11, 2011.**

Special Needs:

If you require special classroom or exam accommodations because of a documented disability please inform your instructor at the beginning of the semester.

Course Grades:

Grades will be determined as follows:
3 short-answer essay exams = 40%
Exercises = 40%
Final Project = 20%
Participation/Attendance = 5%
TOTAL = 105%
An "Incomplete" grade will be issued only in emergency situations.

Academic Honesty:

Students are responsible for knowing policy regarding academic honesty. For more information, visit: Academic Honesty Policy or UNR Catalog

Add/Drop Policy:

Students are responsible for knowing the University policy, procedures, and schedule for dropping or adding classes. Schedule Adjustments (Adding or Dropping)

Attendance and Disruptive Behavior:

Students are responsible for knowing policy regarding attendance and disruptive behavior: Class Attendance and Disruptive Behavior

691 Components:

If you are taking this class as a special topics (Geog: 691) please see instructor for further instructions.

Course Calendar: subject to change with fair notice. *Forthcoming (Assignment due dates, Readings, Exam dates, etc.).*

		Lecture Tuesday (9:30-10:15)	***Lab Thursday (A OR B)***	***Readings***
Jan.	18	Introduction to the Course		Syllabus
	20	Cartography/Geovisualization	Introduction to Illustrator, Map Purpose Exercise #1	
	25	Base Data		Dent et al., Chp#1,
	27	Base Data (continue)	Exercise #1 (due beginning of lab) Start Golf Exercise	
Feb	1	Design Constraints		Dent et al., Ch. #12
	3	Visual Hierachary	Golf Exercise due (beginning of class) Part II Purpose needs to be turned in. Start Hawaii Project	Dent et al., Ch. #2 Lying with Maps ~Mark Monmonier
	8	Rough Layout/ Map Purpose		Dent et al., Ch.#3
	10	Map Critique/ Generalization	Hawaii Project2	
	15	Map Projections		
	17	Review for Exam	Hawaii due (beginning of class) Critique Web Map/ Map Projections Tutorial	
	22	Exam #1	Projection Critique due	Review Ch.# 1,2,3 & 12
	24	Typography & Lettering Placement	Type Tutorial~ Personal Template	Dent et al., #13 Positioning Names on Maps ~Eduard Imhof
Mar.	1	Type Terms/ Type Placement		Dent et al., Ch.#4
	3	Helvetica	Nor. Cal Type Exercise Step#1 of Final Project	
	8	Symbolization		Dent et al., Ch.#5
	10	Visual Variables	Work on Nor.Cal Type lab	
	15	Spring Break	Spring Break	Spring Break
	17	Spring Break	Spring Break	Spring Break
	22	Choropleth		
	24	Quantitive Methods	Type Exercise Due (beginning of class) Start Choropleth Tutorial	Dent et al. Ch. #6
	30	Maps Measurement levels		
	30	Flow Maps	Choropleth Map/Step #2 of Final Project	Dent et al. 11 (flow map)
Apr	5	Exam #2		Review Ch. 13,4,5 &6
	7	Dot Map	Choropleth Map Due, (beginning of class) Dot Map Activity	Dent et al. Ch. #7
	12	Graduated Point Symbol		Dent et al. Ch #8
	14	Isarithmic Map	Step #3 of Final Project/ Graduated Point Activity	Dent et al. Ch. #9

			Dot map Due (beginning of class)	
	19	Color		Dent et al. Ch # 14
	21	Color	PRINT OUT ROUGH DRAFT	
	26	Charts and Graphs	Final Project	Dent et al. Ch#17
	28	Final Project	CRITIQUE FINAL PROJECTS	Review Ch. 7,8,9,11,14 & 17
May	3	Review Ch. 7,8,9,11,14 & 17	Final Project Due	
	6	Final Exam 7:30-9:30 am		

Lab Syllabus – Geography 312, Cartography

Labs: Thursday 11-1:45pm (lab A) **OR** 2-4:45pm (lab B) MS 222.

Labs will start on time with 15-20 minutes of instructions in MS 221. At this time there should be no work on the computers, in fact I would suggest turning off the computer screens. After the introduction to the class I would encourage everyone to work in MS 222, it's more of a lab environment and is better for communication.

Lab Rules: Show up on time, pay attention, ask questions, and **no eating in lab during our designated lab time.**

Sitting at a computer station for 3 hours straight is bad for your health. So I suggest that you get up and walk around. Look over the shoulders of your colleagues and see what they are doing different from you.

Lab work exercises are worth 40% of your semester grade. I have allocated the appropriate amount of time so that you can finish the project and prepare for the following assignments.