

Course Syllabus

GEOGRAPHY 391-591

Fall 2011

COMPUTER CARTOGRAPHY

Instructor: Mamadou Coulibaly

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Office Hours: Tuesday & Thursday: 09:00 – 11:00 AM
Wednesday 1:00 PM – 2:00 PM

Department of Geography: <http://www.uwosh.edu/departments/geography/>

Meeting time: Lectures: 10:20AM – 11:20 AM, M W, Sage 4422
Labs: 11:30AM – 12:30 PM, M W, Sage 4422

Text Books: Robinson, Morrison, Muehrcke, Kimerling, Guptill. *Elements of Cartography*. Wiley, 6th Edition
Slocum. *Thematic Cartography and Visualization*. Prentice Hall.

GIS Software (available in the GIS Lab)

ArcGIS 10 (GIS, Cartography and some Remote Sensing)

ArcView Version 3.3 (GIS and Cartography)

ERDAS IMAGINE 2011 (Remote Sensing, GIS and Cartography)

MapInfo Professional 8.5 (GIS and Cartography)

XMap 5.0 (Cartography)

Adobe Illustrator (Cartography)

Carte Et Donnés (Cartography)

MapViewer 5.0 (Cartography)

COURSE DESCRIPTION

This course introduces the basic concepts and techniques for the manipulation, the graphic representation of spatial information, and limited analysis. The course examines the processing, compilation and symbolization of spatial data and the application of related statistical techniques. Emphasis is placed on the technology of mapping, particularly computer mapping and visualization, in the context of Geographic Information Systems.

This course has two closely related components: the lectures and the labs. Topics discussed in the lectures will be demonstrated during labs. In addition, lab assignments will be handed out that must be completed within a week. Labs will also consist of quizzes and a final project.

A D2L web page is available for the course. It is your responsibility to make often visits to this web site for important announcements and details about the course.

COURSE REQUIREMENTS

GEOG 371, Cartography.

Grades will be assigned using a combination of two (2) exams and laboratory assignments (including quizzes and a final project). Attendance is required (see requirements below).

ATTENDANCE REQUIREMENTS

Attendance is required for both the lab and lecture components of the course. Absence from greater than 2 lab/lecture sessions (or 3 lecture or 3 labs) without prior consent of instructor will result in the deduction of 2 points from the total points for every class missed.

In case are late or absent, you are responsible for making up missed work promptly by getting the course notes and handouts from a classmate. You must also have your assignments prepared for the next class. If you are absenting for any **VALID** and **DOCUMENTED** reason, please call or email me before or soon after the class you are missing and submit the documents promptly.

EXAMS, QUIZZES AND GRADING POLICY

Two equally weighted **exams** are scheduled in this course. The exams are non-comprehensive and will cover material in the preceding units of study.

There will also be **quizzes** during the semester. A quiz could be given at the beginning or at the end of each class (be always ready for quiz). The final grade in the course will be determined on the basis of the student's performance on the **exams, Labs** (exercises and Assignments), **quizzes**, and **final project** (proposal, Presentations, Report). There is a total of 200 points.

Quizzes.....	30 pt.
Lab exercises	20 pt.
Project Proposal.....	10 pt
Project Proposal Presentation.....	10 pt
Lab Assignments.....	30 pt
First Mid-term Exam.....	40 pt.
Second Mid-term Exam.....	40 pt.
Final Presentation and Report.....	20pt.

The following scale will be used in determining the final grade:

Grade	Points	Percentage
A	$190 \geq x$	$95 \geq x$
A-	$183 \geq x < 190$	$91.5 \geq x < 95$
B+	$176 \geq x < 183$	$88 \geq x < 91.5$
B	$169 \geq x < 176$	$84.5 \geq x < 88$
B-	$162 \geq x < 169$	$81 \geq x < 84.5$
C+	$155 \geq x < 162$	$77.5 \geq x < 81$
C	$148 \geq x < 155$	$74 \geq x < 77.5$
C-	$141 \geq x < 148$	$70.5 \geq x < 74$
D+	$134 \geq x < 141$	$67 \geq x < 70.5$
D	$127 \geq x < 134$	$63.5 \geq x < 67$
D-	$120 \geq x < 127$	$60 \geq x < 63.5$

EMAIL

You are encouraged to come to or to call me during my office hours in order to have your issued addressed immediately. However, I will do my best to respond to emails within 24 hours. When you send an email put Geog391 as prefix for the subject. For example, if you have an inquiry about exam grade, your email subject should be something like: *Geog391- Exam grade*.

SPECIAL ANNOUNCEMENT

I would like to hear from anyone who has a disability, which may require some modification of seating, testing, or other class requirements so that appropriate arrangements may be made. Please see me after class or during my office hours.

COURSE OUTLINE

Dates	Topic	
September 7	Introduction to the course Lab: Introduction to the GIS lab and lab policies	
September 12	Cartography and GIS Introduction to ArcCatalog ArcMap	
September 14	Map Projections and Coordinate Systems Lab: Using ArcGIS/Arctoolbox Projection Utility Assignment 1: Map Projection	
September 19	Data Models Lab: Introduction to tables and grid image in ArcGIS	Chapter 10
September 21	Data Display and Cartography Lab: Layout in ArcGIS	
September 26	Thematic Cartography Lab: Thematic maps in Arc GIS	
September 28	Thematic Cartography Lab: Displaying thematic maps in ArcMap	
October 03	Examination 1	
October 05	Data Measurement Lab: Analyzing spatial and tabular data	Chapter 16
October 10	Cartographic Design Lab: exploring mapping tools Assignment 2: Cartographic design	
October 12	Cartographic Design (Continues) Lab: exploring additional mapping tools	
October 17	Cartographic Design Lab: Creating an atlas in ArcMap Assignment 2: Index Map /Atlas	
October 19	Terrain Mapping Lab: Using a DEM, 3D analyst Term project's subject due	
October 24	Data Acquisition Lab: Internet data sources, ArcGIS online, ArcExplorer	
October ...26	Map Digitizing Lab: Digitizing exercise	
October.... 31	Spatial Interpolation Lab: Interpolation with ArcMap	
November 02	Midterm Presentation Project proposal due	
November 07	Geocoding. Lab: addresses matching and plotting lat-long coordinates Assignment 3: Map Request	
November 09	Internet/web Mapping Lab: ArcGIS Explorer / ArcGIS Online / ArcGIS Server Google Map	
November 14	Exam 2	
November 16	Map contest/hot links	
November 21	Georeferencing)	
November 23-27	Thanksgiving Break	
November 28	3D analyst (mapping campus structures)	
November 30	Using a GPS unit	
December 5	Animation	
December 07	Term Project and Discussion	
December 13	Project presentations	
December 15	Project presentations	