



UNIVERSITY OF
CENTRAL
ARKANSAS™

Geography

Geography (GEOG) 2475: Cartography

Fall 2020

Time: TR 2:40- 3:55 pm

Location: Burdick Hall 313

Instructor: Yaqian He, PhD

Office: Burdick Hall 318H

E-mail: yhe@uca.edu

Office Hours: MW 12:30- 2:20 pm

Course Contributions

Several people helped me to develop this course by providing advice, data, or materials. Specifically, I would like to acknowledge the contributions of Dr. Stephen O'Connell, Dr. Fang Fang from UIUC, Dr. Aaron Maxwell from WVU, and staffs from National Geospatial Technology Center of Excellence.

Course Description

Cartography is the knowledge associated with the art, science, and technology of maps. Map is an effective way to represent the world, analyze spatial phenomena, and communicate with audience. This course is designed to provide the introduction to principles, conventions, and concepts of Cartography, and software that is necessary to produce good maps, especially in the context of geographic information systems (GIS).

Course Outcomes

After completing this course, a student will be able to:

1. understand cartographic principles and conventions, recognize the elements of cartography representation, and how maps work
2. apply cartographic principles to symbolize and classify geographic data
3. produce audience-appropriate maps using GIS data and software (Esri ArcGIS)
4. use graphics editing software (Adobe Illustrator) for improving the quality of maps

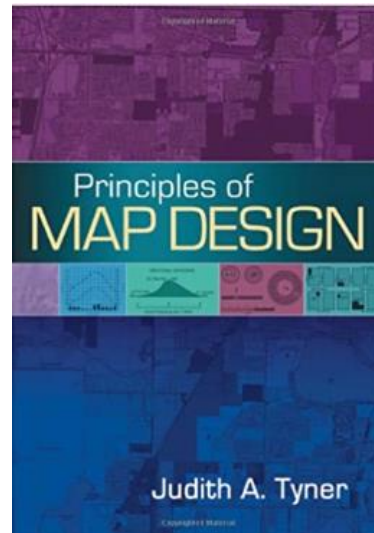
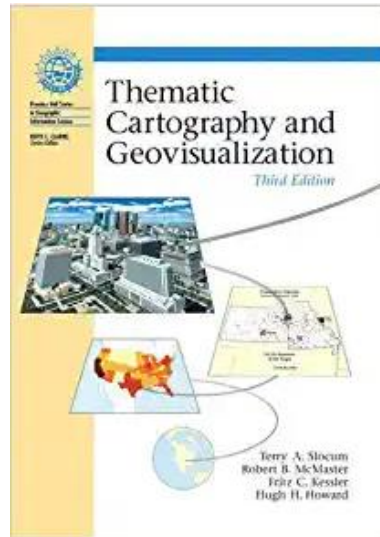
Course Framework

This course will use a combination of lectures, demonstrations, and lab exercises. The instructor firmly believe that students learn via engagement and doing. As a result, large portions of the class time will be set for demonstrations and lab exercises. It is important that you engage yourself during this class. The instructor will do her best to help you learn, however, it is imperative that you take ownership of your own education.

Recommended Text

1. *Thematic Cartography and Geovisualization* by Terry A. Slocum, Robert B. McMaster, Fritz C. Kessler, and Hugh H. Howard (ISBN-10: 1589484401; ISBN-13: 978-1589484405)

2. *Principles of Map Design* by Judith A. Tyner. (ISBN 978-1-60623-544-7, 978-1-4625-1712-1)



Required software

- 1: Esri ArcGIS 10.8, provided by Geography department
- 2: Adobe Illustrator (7 days free, then \$19.99/ month)
(<https://www.adobe.com/products/illustrator.html#mini-plans-web-cta-illustrator-card>)

Grading

Grading for this course will consist of 10 labs and two exams. The detailed showed in the Table 1 and Table 2.

It is important that all lab exercises be completed in a timely manner. Some bonus exercises maybe provided. **Labs that are not turned in by the due date can be turned in up to 2 days late with a 20% penalty.** Labs will not be accepted after this 2-day period.

Exams will focus on the key concepts and methods discussed in the lecture. The goal of exams will be for you to demonstrate an understanding of the key concepts discussed in class. Being able to execute an analysis is of little benefit if you do not understand the underlying concepts. The exams are not cumulative. **Make-up exams for absences due to any reasons will be at the discretion of the instructor. You must notify the instructor beforehand if you need to miss an exam, the instructor will not let you make up an exam without prior notification. However, final exam cannot be rescheduled. You are expected to take the final at the time specified.**

Table 1 Grade distribution

Item	Points	Description
Lab exercises	60 points each, 600 points total	10 lab exercises. Each will be provided with guidelines.
Midterm Exam	100 points	Exam will consist of multiple choice, true/false, and short answers.
Final Exam	100 points	Exam will consist of multiple choice, true/false, and short answers.
Total	800 Points	

Table 2 Grade Scale

90%- 100%	A	> 720 points
80%- 90%	B	> 640 Points
70%- 80%	C	> 560 Points
60%- 70%	D	> 480 Points
0%- 60%	F	< 480 Points

Attendance Policy

1. Attendance is mandatory
2. Class will begin promptly, so please show up on time. **If you are more than 10 minutes late for an exam or final, it will not be completed and you will receive a grade of zero on the examination.**
3. **Consistent with University of Central Arkansas guidelines, excessive absences (up to 3 times) may jeopardize students' grades and the instructor reserves the right to remove you from the class permanently.**

Feedback Response Time

The instructor generally replies to email within 48 hours, except during holidays. Often the instructor replies much more quickly, but you should not count on a same-day reply. Please plan accordingly so that you don't miss deadlines!

Classroom Etiquette

1. Switch cell phones off and place them out of view. Do not use phones during class. Resist the impulse!
2. Computers are permitted for note-taking only.
3. Do not sleep in class or leave once a lecture has started
4. Do not pack up and prepare to leave until the instructor has indicated that class is over
5. No eCigarettes permitted in the classroom.
6. You are encouraged to think critically and ask stimulating questions, but always respect your fellow students and your instructor.

COVID-19 adaptation

According to the guidance of the University of Central Arkansas responding to COVID-19, all in-person instruction must be before November 24, 2020. The class schedule has followed this

guidance. However, the schedule may be changed and we will transfer to virtual format if face-to-face delivery is interrupted. All students are expected to comply with the University policy regarding face coverings (see <https://uca.edu/coronavirus/students/>).

Please stay safe. If you feel any symptoms of COVID-19 (e.g., fever of 100.4 degree last two days, a cough, difficulty breathing, a sore throat), please contact your healthcare provider or the Student Health Clinic (<https://uca.edu/coronavirus/students/>).

There are no penalties for any COVID-19 related absence of class. Please also contact the instructor for labs and exam rearrangement.

Academic Integrity Statement

The University of Central Arkansas affirms its commitment to academic integrity and expects all members of the university community to accept shared responsibility for maintaining academic integrity. Students in this course are subject to the provisions of the university's Academic Integrity Policy, approved by the Board of Trustees as Board Policy No. 709 on February 10, 2010, and published in the *Student Handbook*. Penalties for academic misconduct in this course may include a failing grade on an assignment, a failing grade in the course, or any other course-related sanction the instructor determines to be appropriate. Continued enrollment in this course affirms a student's acceptance of this university policy.

Accommodations

The University of Central Arkansas adheres to the requirements of the Americans with Disabilities Act. If you need an accommodation under this Act due to a disability, please contact the UCA Disability Resource Center, 450-3613.

Building Emergency Plan statement

An Emergency Procedures Summary (EPS) for the building in which this class is held will be discussed during the first week of this course. EPS documents for most buildings on campus are available at <http://uca.edu/mysafety/bep/>. Every student should be familiar with emergency procedures for any campus building in which he/she spends time for classes or other purposes.

Diversity Statement

The University of Central Arkansas is dedicated to attracting and supporting a diverse student, faculty, and staff population and enhanced multicultural learning opportunities. We value the opportunity to work, learn, and develop in a community that embraces the diversity of individuals and ideas, including race, ethnicity, religion, spiritual beliefs, national origin, age, gender, marital status, socioeconomic background, sexual orientation, physical ability, political affiliation, and intellectual perspective (<https://uca.edu/diversity/institutional-diversity/>).

Title IX disclosure

If a student discloses an act of sexual harassment, discrimination, assault, or other sexual misconduct to a faculty member (as it relates to "student-on-student" or "employee-on-student"), the faculty member cannot maintain complete confidentiality and is required to report the act and may be required to reveal the names of the parties involved. Any allegations made by a student may or may not trigger an investigation. Each situation differs, and the obligation to conduct an

investigation will depend on the specific set of circumstances. The determination to conduct an investigation will be made by the Title IX Coordinator. For further information, please visit: <https://uca.edu/titleix>. **Disclosure of sexual misconduct by a third party who is not a student and/or employee is also required if the misconduct occurs when the third party is a participant in a university-sponsored program, event, or activity*

Evaluations

Student evaluations of a course and its professor are a crucial element in helping faculty achieve excellence in the classroom and the institution in demonstrating that students are gaining knowledge. Students may evaluate courses they are taking starting on Monday, November 16, 2020, through Sunday, December 13, 2020 by logging in to myUCA and clicking on the Course Evaluations task.

Week	Date	Tuesday	Thursday	Project Due Dates	Source Material
W1	Aug. 20-21		Introductions, Syllabus		Ch 1
W2	Aug. 24-28	Data Standardization and Classification	Introduction to ArcMap Lab #1 Load Data into ArcMap		Ch 7 & 8
W3	Aug. 31- Sep. 4	Map Projection	Demo Lab #2 Interval and Standardized Maps	Lab #1 Due by Beginning of Class Time on Thursday	Ch 6
W4	Sep. 7-11	Map Projection	Demo Lab #3 Define and Convert Map Projection	Lab #2 Due by Beginning of Class Time on Thursday	Ch 6
W5	Sep. 14-18	Symbolization	Symbolization	Lab #3 Due by Beginning of Class Time on Thursday	Ch 7 & 8
W6	Sep. 21-25	Demo Lab #4 Dot Density map	Map Elements		Ch 2
W7	Sep. 28-Oct. 2	Map Elements	Demo Lab #5 Insert Map	Lab #4 Due by Beginning of Class Time on Thursday	Ch 2
W8	Oct. 5- Oct. 9	Color	Color	Lab #5 Due by Beginning of Class Time on Thursday	Ch 4
W9	Oct. 12- Oct. 16	Midterm Exam	Introduction to Illustrator Lab #6 Introduction to Illustrator		
W10	Oct. 19- Oct. 23	Typography and Labeling	Demo Lab #7 Label ArcGIS Output Using Illustrator	Lab #6 Due by Beginning of Class Time on Thursday	Ch 3
W11	Oct. 26- Oct. 30	Thematic Mapping	Demo Lab #8 Rearrange ArcMap Output Using Illustrator	Lab #7 Due by Beginning of Class Time on Thursday	Ch 1 & 9
W12	Nov. 2- Nov. 6	Cartographic Design	Demo Lab #9 Bivariate Map Using ArcMap	Lab #8 Due by Beginning of Class Time on Thursday	Ch 1,2,3 & 4
W13	Nov. 9- Nov. 13	Cartographic Design	Critique of Maps Lab #9 Bivariate Map Using ArcMap	Lab #9 Due by End of Class Time on Thursday	Ch 1,2,3 & 4
W14	Nov. 16- Nov. 20	Pick up your own data Lab #10 Generate you own maps	Lab #10		Ch 12
W15	Nov. 23- Nov. 27	Thanksgiving Break	Thanksgiving Break		
W16	Nov. 30- Dec. 4	Catch up session		Lab #10 Due by Beginning of Class Time on Thursday	
W17	Dec. 7- Dec. 11	Final exam			