

Geography 4360 Cartography and Remote Sensing
MW 2:30 to 3:55 PM
COB 255
Spring 2026

Instructor: Dr. E. Cory Sills, Associate Professor
Office: CAS 142
Office hours: MWF 10:05 to 11:05 am
In Person, By Appointment
E-mail: esills@uttyler.edu ph:903-566-7442

Communications: I encourage you to visit office hours or directly after class via zoom. This is a good opportunity for you to look over your exams, ask questions, or seek clarification. If you cannot attend my office hours, you may set-up an alternative time. I will respond to your emails within 24 hours on weekdays and 48 hours on weekends. **In your email, include your first and last name and the course title Geography 4360, Cartography, or Geog 4360.**

Required texts:

1. Making Maps: A Visual Guide to Map Design for GIS, 3rd edition, by John Krygier and Denis Wood. You may access this book for free through the UT Tyler library <https://libguides.uttyler.edu/c.php?g=1066647&p=8075197>
2. Additional readings will be posted on Canvas.

Catalogue description: Map interpretations and construction and applications of geographic information systems and remote sensing methods.

Course objectives: This course will introduce you to the fundamentals of cartography (map design) and analysis. Maps are powerful tools for conveying information, presenting complex data, evaluating spatial relations, and presenting geographical information in effective ways.

Learning Objectives:

1. Understand and apply fundamental cartographic concepts.
2. Evaluate and critique mapping data and its application.
3. Examine the role of cartography in understanding space and place.
4. Classify data by using the appropriate principles of map design.
5. Design and develop a map project using GIS.

Course format: This is a face to face, in person class, with materials posted to the online learning management platform Canvas. The class lectures are supplemented by the required text, current events, videos, demonstrations, discussions, guest lectures, and maps. Lectures and readings will not necessarily cover the same ground. Indeed, they are intended to supplement each other rather than to completely overlap. I strongly recommend that you attend every lecture and carefully study the assigned readings. I encourage relevant questions and comments during the lecture and through email. A question you have other students might also have, and thoughtful remarks will make the course more interesting for everyone, including myself.

Class Etiquette: I expect everyone in the classroom to be **respectful** of each other and treat everyone with dignity – each of us brings different opinions and experiences some of these might be dissimilar to your own. I expect comments to be positive and objective and not judgmental and rude.

Grading: The course grade will be based on eight StoryMap tutorials, two exams (mid-term and final), attendance and participation, and a completed StoryMaps project that will consist of four parts: proposal, StoryMaps project, and presentation.

Tutorials: There will be eight short tutorials to help you learn StoryMaps and ArcMap Viewer. You should have time to finish most of these in class. The tutorials will be due the week after they are posted. See the schedule and Canvas for due dates.

Exams: The exams will cover material from class including slides, discussions, presentations, guest lectures, readings, and videos. The midterm will cover material from the first part of the course; the final

will cover material from the second part of the course including the presentations. Exams could include multiple choice, true/false, and short answer questions.

StoryMaps Project: Throughout the semester, you will work on and complete a StoryMaps project. Your StoryMap should tell a data driven geographic story using cartographic principles that will combine narrative, visuals, and interactivity. More details and expectations for the project will be posted on Canvas.

Proposal: You will submit a one-to-two-page word document of your StoryMaps topic outlining the topic and title, audience and purpose, along with a general description of the information you will need to complete your project. You should also supply information about your data sources and design considerations.

StoryMaps Project: The StoryMaps project will be place based and include a title, sections (introduction, analysis, and conclusion), content blocks, be consistent with cartographic design best practices, and contain at least one advanced feature. Details about what to include and the format will be posted on Canvas.

Presentation: You will present your completed StoryMap to the class. Each presentation will be 8-10 minutes covering your StoryMap project. You should include the topic and explain the purpose, highlight key design decisions, and discuss any challenges you encountered and how you solved them. Details about what to include and the format of the presentation will be posted on Canvas.

Class Attendance and Participation: Regular attendance and active participation are essential for success in this course. Many class activities involve hands-on learning, collaboration, and discussion that cannot be replicated outside of class. Students are expected to attend all scheduled sessions and contribute meaningfully to in-class activities.

Course weights:

Map Tutorials (8) (4% each): 32%

Mid-term: 15%

Final: 15%

Proposal: 5%

StoryMaps: 25%

Presentation: 5%

Participation and Attendance: 3%

Total: 100%

- Grading scale: A 90-100% B 80-89.99% C 70-79.99%
 D 60-69.99% F 0-59.99%

Make-up Policy: Make-up tests will be given with a legitimate reason and in rare circumstances. Students should contact the instructor **prior** to the exam and not after if they will miss the exam. Make-up exams will not be given except when there are exceptional circumstances (be prepared to provide documentation of your circumstance, such as a doctor's note, police report, University-excused absence, *et cetera*).

AI Statement for This Course: The work submitted by students in this course will be generated by themselves. This includes all drafts and final products. You may use another software program for editing of your document and you may use AI tools (such as ChatGPT or Copilot) to help brainstorm, generate ideas for your map project, and find references. However, the written text of the paper, discussion questions, and any other assignments must be your own and not generated by AI. Any instance of the following constitutes a violation of UT Tyler's Honor Code: a student has another person/entity do any portion of a graded assignment, which includes purchasing work from a company, hiring a person or company to complete an assignment or exam, using a previously submitted assignment and/or using AI tools (such as ChatGPT). You will receive a zero on the assignment for violating this policy.

Cell Phones/Laptops: Turn off your ringer and do not use your cell phone during class – this includes text messaging. If you are expecting an important call, please put your phone on vibrate and sit close to the door. This action will help minimize any disturbance to the class. **I will not be recording this class. Any video, photographic or audio recordings of the class must be approved by me.**

University Policies and Information

Withdrawing from Class

Students may [withdraw](#) (drop) from this course using the [Withdrawal Portal](#). Withdrawing (dropping) this course can impact your Financial Aid, Scholarships, Veteran Benefits, Exemptions, Waivers, International Student Status, housing, and degree progress. Please speak with your instructors, consider your options, speak with your advisor, and visit the One-Stop Service Center (STE 230) or email enroll@uttyler.edu to get a complete review of your student account and the possible impacts to withdrawing. We want you to make an informed decision. UT Tyler faculty and staff are here for you and often can provide additional support options or assistance. Make sure to carefully [read the implications for withdrawing from a course and the instructions](#) on using the [Withdrawal portal](#)..

Texas law prohibits students from dropping more than six courses during their entire undergraduate career*. The six courses dropped includes those from other 2-year or 4-year Texas public colleges and universities. Consider the impact withdrawing from this class has on your academic progress and other areas, such as financial implications. We encourage you to consult your advisor(s) and Enrollment Services for additional guidance. **CAUTION #1:** Withdrawing before census day does not mean you get a full refund. Please see the [Tuition and Fee Refund Schedule](#). **CAUTION #2:** All international students must check with the [Office of International Programs](#) before withdrawing. All international students are required to enroll full-time for fall and spring terms. **CAUTION #3:** All UT Tyler Athletes must check with the Athletic Academic Coordinator before withdrawing from a course. **CAUTION #4:** All veterans or military-affiliated students should consult with the [Military and Veterans Success Center](#).

* Students who began college for the first time before 2007 are exempt from this law.

Artificial Intelligence Statement

UT Tyler is committed to exploring and using artificial intelligence (AI) tools as appropriate for the discipline and task undertaken. We encourage discussing AI tools' ethical, societal, philosophical, and disciplinary implications. All uses of AI should be acknowledged as this aligns with our commitment to honor and integrity, as noted in UT Tyler's Honor Code. Faculty and students must not use protected information, data, or copyrighted materials when using any AI tool. Additionally, users should be aware that AI tools rely on predictive models to generate content that may appear correct but is sometimes shown to be incomplete, inaccurate, taken without attribution from other sources, and/or biased. Consequently, an AI tool should not be considered a substitute for traditional approaches to research. You are ultimately responsible for the quality and content of the information you submit. Misusing AI tools that violate the guidelines specified for this course is considered a breach of academic integrity. The student will be subject to disciplinary actions as outlined in UT Tyler's Academic Integrity Policy. *Refer to the About This Course section of the UT Tyler Syllabus Module for specific information on appropriate use of AI in your course(s).*

Final Exam Policy

Final examinations are administered as scheduled. If unusual circumstances require that special arrangements be made for an individual student or class, the Dean of the appropriate college, after consultation with the faculty member involved, may authorize an exception to the schedule. Faculty members must maintain student final examination papers for a minimum of three months following the examination date.

Incomplete Grade Policy

If a student, because of extenuating circumstances, is unable to complete all of the requirements for a course by the end of the semester, then the instructor may recommend an Incomplete (I) for the course. The "I" may be assigned in place of a grade *only when **all** of the following conditions are met:* (a) the student has been making satisfactory progress in the course; (b) the student is unable to complete all coursework or final exam due to unusual circumstances that are beyond personal control and are acceptable to the instructor, and (c) the student presents these reasons before the time that the final grade roster is due. The semester credit hours for an Incomplete will not be used to calculate the grade point average.

The student and the instructor must submit an Incomplete Form detailing the work required and the time by which the

work must be completed to their respective department chair or college dean for approval. The time limit established must not exceed one year. Should the student fail to meet all of the work for the course within the time limit, then the instructor may assign zeros to the unfinished work, compute the course average for the student, and assign the appropriate grade. If a grade has yet to be assigned within one year, then the Incomplete will be changed to an F, or NC. If the course was initially taken under the CR/NC grading basis, this may adversely affect the student's academic standing.

Grade Appeal Policy

Disputes regarding grades must be initiated within sixty (60) days from the date of receiving the final course grade by filing a Grade Appeal Form with the instructor who assigned the grade. A grade appeal should be used when the student thinks the final course grade awarded does not reflect the grades earned on assessments or follow the grading scale as documented in the syllabus. The student should provide the rationale for the grade appeal and attach supporting document about the grades earned. The form should be sent via email to the faculty member who assigned the grade. The faculty member reviews the rationale and supporting documentation and completes the instruction section of the form. The instructor should return the form to the student, even if a grade change is made at this level. If the student is not satisfied with the decision, the student may appeal in writing to the Chairperson of the department from which the grade was issued. In situations where there is an allegation of capricious grading, discrimination, or unlawful actions, appeals may go beyond the Chairperson to the Dean or the Dean's designee of the college from which the grade was issued, with that decision being final. The Grade Appeal form is found in the [Registrar's Form Library](#).

NOTE: The Grade Appeal Form is different from the Application for Appeal form submitted to the Student Appeals Committee, which does not rule on grade disputes as described in this policy.

Disability/Accessibility Services

In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA), the University of Texas at Tyler offers accommodations to students with learning, physical, and/or psychological disabilities. If you have a disability, including a non-visible diagnosis such as a learning disorder, chronic illness, TBI, PTSD, ADHD, or a history of modifications or accommodations in a previous educational environment, you are encouraged to visit <https://hood.accessiblelearning.com/UTTyler/> and fill out the New Student application. The Student Accessibility and Resources (SAR) office will contact you when your application has been submitted and an appointment with the Assistant Director Student Accessibility and Resources/ADA Coordinator. For more information, including filling out an application for services, please visit the SAR webpage at <https://www.uttyler.edu/disability-services>, the SAR office located in the Robert Muntz Library, LIB 460, email saroffice@uttyler.edu, or call 903.566.7079."

Military Affiliated Students

UT Tyler honors the service and sacrifices of our military-affiliated students. If you are a student who is a veteran, on active duty, in the reserves or National Guard, or a military spouse or dependent, please stay in contact with your faculty member if any aspect of your present or prior service or family situation makes it difficult for you to fulfill the requirements of a course or creates disruption in your academic progress. It is important to make your faculty member aware of any complications as far in advance as possible. Your faculty member is willing to work with you and, if needed, put you in contact with university staff who are trained to assist you. The [Military and Veterans Success Center \(MVSC\)](#) has campus resources for military-affiliated students. The MVSC can be reached at MVSC@uttyler.edu or via phone at 903.565.5972.

Students on an F-1 Visa

To remain in compliance with Federal Regulations requirements you must do the following:

- Traditional face-to-face classes: Attend classes on the regular meeting days/times.
- Hybrid Classes: Attend all face-to-face classes convened by the instructor according to the schedule set for your specific course.
- Online course: Only one online course can count toward your full-time enrollment. Students are expected to be fully engaged and meet all requirements for the online course.

Academic Honesty and Academic Misconduct

The UT Tyler community comes together to pledge that "Honor and integrity will not allow me to lie, cheat, or steal, nor to accept the actions of those who do." Therefore, we enforce the [Student Conduct and Discipline policy](#) in the Student Manual Of Operating Procedures (Section 8).

FERPA

UT Tyler follows the Family Educational Rights and Privacy Act (FERPA) as noted in [University Policy 5.2.3](#). The course instructor will follow all requirements to protect your confidential information.

Absence for Official University Events or Activities

This course follows the practices related to [Excused Absences for University Events or Activities](#) as noted in the Catalog.

Absence for Religious Holidays

This course follows the practices related to [Excused Absences for Religious Holy Days as noted in the Catalog](#).

Absence for Pregnant Students

This course follows the requirements of Texas Laws SB 412, SB 459, SB 597/HB 1361 to meet the needs of pregnant and parenting students. Part of the supports afforded pregnant students includes excused absences. Faculty who are informed by a student of needing this support should make a referral to the Parenting Student Liaison. NOTE: Students must work with the Parenting Student Liaison in order to receive these supports. Students should reach out to the Parenting Student Liaison at parents@uttyler.edu and also complete the [Pregnant and Parenting Self-Reporting Form](#).

Campus Carry

We respect the right and privacy of students who are duly licensed to carry concealed weapons in this class. License holders are expected to behave responsibly and keep a handgun secure and concealed. More information is available at <http://www.uttyler.edu/about/campus-carry/index.php>.

What we cover in the lecture on a day-to-day basis may differ from the attached schedule. I will inform the class via email if topics change.

Course Schedule

Week	Day	Date	Tentative Lectures and Activities	Tentative Readings
1	M	12-Jan	<ul style="list-style-type: none"> Mapping the Course 	Syllabus/Introduction of Textbook pages 13-17
1	W	14-Jan	<ul style="list-style-type: none"> Lecture: History of Cartography and Map Design 	
2	M	19-Jan	<ul style="list-style-type: none"> MLK Day. No class 	
2	W	21-Jan	<ul style="list-style-type: none"> Lecture: Film on Map Making 	
3	M	26-Jan	<ul style="list-style-type: none"> Lecture: Map Design Principles Census Date 	Chapter 1: How to Make a Map
3	W	28-Jan	<ul style="list-style-type: none"> Lecture: Purpose and Presentation 	Chapter 2: What's your Map for?
4	M	2-Feb	<ul style="list-style-type: none"> Tutorial 1: Getting Started with Story Maps. Due Feb. 9 	
4	W	4-Feb	<ul style="list-style-type: none"> Lecture: Data Management Tutorial 2: Thematic Map in Map Viewer. Due Feb. 16 	Chapter 3: Mappable Data
5	M	9-Feb	<ul style="list-style-type: none"> Due: Tutorial 1 Lecture: Thematic Mapping and Topographic Maps Continue Tutorial 2: Thematic Map in Map Viewer 	Chapter 4: Map Making Tools
5	W	11-Feb	<ul style="list-style-type: none"> Lecture: Map Projections and Coordinate Systems Tutorial 3: Projection comparison. Due Feb. 18 	Chapter 5: Geographic Framework
6	M	16-Feb	<ul style="list-style-type: none"> Due: Tutorial 2 Lecture: Symbols, Symbolology, Color & Typography 	Chapter 6: The Big Picture of Map Design Chapter 7: The Inner Workings of Map Design
6	W	18-Feb	<ul style="list-style-type: none"> Due: Tutorial 3 Tutorial 4: Immersive Blocks. Due Mar 2 	

7	M	23-Feb	<ul style="list-style-type: none"> Lecture Wrap-Up Review for Midterm 	
7	W	25-Feb	<ul style="list-style-type: none"> Midterm Exam 	
8	M	2-Mar	<ul style="list-style-type: none"> Due: Tutorial 4 Lecture: Ethics: Lying with Maps; Proposal Workshop 	Lying with Maps by Mark Monmonier (pdf on Canvas)
8	W	4-Mar	<ul style="list-style-type: none"> Due: StoryMap Proposal Lecture: Map Classifications & Generalizations 	Chapter 8: Map Generalization and Classification
Spring Break March 11-15. No class				
9	M	16-Mar	<ul style="list-style-type: none"> Tutorial 5: Map Tour, Swipe, Timeline. Due Mar 23. 	
9	W	18-Mar	<ul style="list-style-type: none"> Lecture: Web Cartography & Interaction Tutorial 6: Express Maps. Due Mar 25 	Chapter 9: Map Symbolism
10	M	23-Mar	<ul style="list-style-type: none"> Due: Tutorial 5 Lecture: Narrative Structure & Story Arc 	
10	W	25-Mar	<ul style="list-style-type: none"> Due: Tutorial 6 Tutorial 7: Accessibility & Analytics. Due Apr 1. 	Chapter 10: Map Symbol Abstraction
11	M	30-Mar	<ul style="list-style-type: none"> Lecture: Advanced StoryMaps Last day to withdraw 	Chapter 11: Words of Maps Chapter 12: Color on Maps
11	W	1-Apr	<ul style="list-style-type: none"> Due: Tutorial 7 Tutorial 8: Infographics & Custom Themes. Due Apr 8. 	
12	M	6-Apr	<ul style="list-style-type: none"> Peer Review and Draft Workshop 	
12	W	8-Apr	<ul style="list-style-type: none"> Due: Tutorial 8 Studio Lab 	
13	M	13-Apr	<ul style="list-style-type: none"> Final, Edits, and Presentation Prep 	
13	W	15-Apr	<ul style="list-style-type: none"> Studio Lab 	
14	M	20-Apr	<ul style="list-style-type: none"> Due: StoryMaps Project Final StoryMap Presentations 	
14	W	22-April	<ul style="list-style-type: none"> Wrap-Up and Review 	
15	M	27-Apr	No Class: Study Day	
15	W	29-Apr	Final Exam: 2:45 p.m.- 4:45 p.m.	