GEO 3411
Maps and Mapmaking
Spring 2022

COURSE INSTRUCTOR

[redacted]
E-mail: [redacted]
Office Hours: Monday, 1:30-3:30 p.m. online; in person only by appointment

LAB INSTRUCTOR

Heather Swienton, ELA 393
E-mail: has41@txstate.edu
Office Hours: Tuesday, 11:00 a.m.-1:00 p.m. online; in person only by appointment

LECTURES: Monday and Wednesday, 11:00 a.m. – 12:20 p.m., ELA 316
LABS: Tuesday 9:00 – 10:50 a.m., ELA 122, **OR** Wednesday 9:00 – 10:50 a.m., ELA 122

COURSE MATERIALS

Recommended textbooks:

- Lab: Adobe Illustrator Creative Cloud Revealed (1st ed.) by Chris Botello, ISBN: 978-1305262614 (available at the bookstore or online).

Additional reading materials may be provided in class or through CANVAS. PowerPoints of the lectures will be uploaded to CANVAS.

CATALOG DESCRIPTION AND COURSE STRUCTURE: An introduction to reference and thematic map use and design. The course introduces basic cartographic mapping techniques for quantitative and qualitative data, teaches about geospatial analysis and interpretation, and enables students to design basic maps.

LEARNING OUTCOMES

- Understand and distinguish between basic concepts in cartography and map design.
- Explore topics including the history of cartography, geographic data presentation, thematic map use and design, basic cartographic mapping techniques for quantitativeand qualitative data, etc.
- Apply the basic concepts of map reading during lab sections, and use Adobe Illustratoras a design tool to create maps.
- Combine the theories and techniques to apply to problem solving through a final project
- Improve confidence to effectively communicate and present ideas through acartographic map.
- Learn the ethics code as a map producer.
- Become a flexible software user and adapt to different map design tools.

PREREQUISITES: There are no prerequisites for this course.

COURSE POLICIES: **Students are expected to regularly attend all classes**: missing lecture and/or lab sessions will almost certainly result in a poor grade. As recommended by the university to facilitate contact tracing in the event of COVID cases, **attendance will be checked** during both lectures and labs; for the same reason, students will be **assigned seating** to maintain throughout the semester. Student participation is strongly encouraged as is a courteous, respectful, and engaged class behavior. **Students missing the midterm** will be given a make-up exam **on the day of the final only**, and only in exceptional and documented circumstances. Late work—**including the final project**—will be graded only if it is **submitted within 5 working days of the due date**. Please note that each late day, including Saturdays, will be subject to a 10% reduction in the grade for that assignment. For example, an assignment due on Tuesday but submitted on Sunday is five days late. Consequently,

the final mark of the assignment will be reduced by 50%. Exception to this rule will be granted only in exceptional and documented circumstances.

GRADING

- Midterm Exam: 250 points
- Final Exam 250 points
- Final Project: 200 points
- Lab assignments: 300 points
- TOTAL 1000 points

The final grade letter will be determined as follows:

- A = 900 – 1000 points
- B = 800 – 899 points
- C = 700 – 799 points
- D = 600 – 699 points
- F = less than 600 points

LAB ASSIGNMENTS

In the lab, students will complete a series of assignments and an individual final project using Adobe Illustrator. Please note that **penalties** will be applied to late assignments (see **COURSE POLICIES** above for details).

FINAL PROJECT

For their final project, students will make a map on a topic assigned by the instructor. For Spring 2022, the final project consists of making a density of population map for Chile, starting from scratch and ending up with a finished product in Adobe Illustrator. We will discuss the final project on **March 21**. NOTE: **all students will be assigned the same project**.

LAB POLICIES

All lab assignments will use Adobe Illustrator to reinforce concepts discussed during the lectures. Although lab time is provided for the completion of the assignments and the final project, students should expect to spend **considerable additional time** working on these tasks outside of the scheduled lab sessions. Open lab hours are posted on lab doors throughout ELA. The course instructors will be available to assist students during lab times, office hours, and additional appointments as needed. Please also note:

- A USB/Flash drive with **at least 8 GB of storage space** is required for the lab.
- Food and drinks are absolutely prohibited in the lab.
- Report any problem with equipment to the department computer laboratory coordinator (Charles Robinson, crobinson@txstate.edu).
- Software may be installed onto lab computers only with the permission of the department computer laboratory coordinator (Charles Robinson, crobinson@txstate.edu). Making personal copies of copyrighted software or data is illegal, as is the downloading of pirated software.
- Do not change or modify computer or network configurations. Such changes may interfere with the next student using the computer.
- **Log on using your account only** (your NetID and password). If someone has forgotten to log out, please log them off.
- Printer usage is monitored and metered. Each student has been assigned a credit limit for printouts. **Use your printer resources wisely**.

TEXAS STATE COVID-RELATED GUIDELINES (as of January 15, 2022)

In addition to following recent Centers for disease Control and Prevention guidelines (https://www.cdc.gov/coronavirus/2019-ncov/index.html), Texas State is requesting all members of the university community to take these five additional steps:

- Follow the university's **Health and Safety Guidelines** (https://www.txstate.edu/coronavirus/road-map/health-and-safety-measures.html). To protect the health and safety of our living, learning, and working environments, the university's Health and Safety Guidelines form the foundation of our COVID-19 mitigation strategy, including wearing masks, getting vaccinated, practicing social distancing, knowing COVID symptoms, and getting tested.
- **Get tested**. Test for COVID-19 within 72 hours (3 days) prior to returning to our campuses, during the semester after high-risk activities, when selected for the university's random testing program, and whenever symptoms develop. For testing information, visit TXST Testing (https://www.healthcenter.txstate.edu/covid-19/testing.html), Curative Testing (https://curative.com), or TX Testing Sites (https://tdem.maps.arcgis.com/apps/webappviewer/index.html?id=1e91fb79fa44417898738e5bff31a3d8).
- **Stay home and get tested if you develop cold-like or other COVID-19 symptoms** (https://www.txstate.edu/coronavirus/road-map/self-assessment.html), regardless of vaccination status. While infection with the recent Omicron variant can lead to severe illness and hospitalization, those who are vaccinated tend to have mild illness. The most common symptoms of Omicron infection include cough, runny/stuffy nose, sore throat, fatigue, and headache. Persons with these symptoms should test for COVID-19.
- **Promptly Report to Bobcat Trace** if you test positive for COVID-19 or have had close contact with someone who received a positive test result. Reporting information can be found on the Texas State's COVID-19 Testing, Reporting, and Response Steps webpage (https://www.txstate.edu/coronavirus/road-map/reporting-processes.html).
- **Follow the advice of Bobcat Trace staff and emails** and send the Bobcat Trace email to instructors and supervisors to discuss arrangements during isolation or quarantine as well as the date of return to campus.
- **Quarantine if you have been identified as a close contact** and stay home for the prescribed time period. The CDC's new guidelines shorten isolation/quarantine periods to 5 days (period of highest infectiousness) and rely heavily on masking for another 5 days to prevent the spread of infection by persons who may still have low levels of contagiousness. The university will follow the CDC COVID-19 Quarantine and Isolation Guidelines (https://www.cdc.gov/coronavirus/2019-ncov/your-health/quarantine-isolation.html).

UNIVERSITY POLICIES

- **ADA Statement:** Students with special needs (as documented by the Office of Disability Services) that will require compensatory arrangements must contact the instructor no later than the 4th class period to discuss specific arrangements and logistics. Students who have not already done so will be required to contact the Office of Student Disability Services located at LBJ 5-5.1 (512.245.3451). Texas State is dedicated to providing these students with necessary academic adjustments and auxiliary aids to facilitate their participation and performance in the classroom.
- **Academic Testing for Students with Disabilities**: The Academic Testing for Students with Disabilities office administers in-class academic exams and quizzes with approved testing accommodations for students who are registered with the Office of Disability Services (ODS) at Texas State University. The university has revised its policies for academic testing for students with disabilities. Please see https://www.txstate.edu/temc/services/atsd.html for up-to-date information.
- **Academic Honesty and Academic Integrity**: Honesty and integrity are essential university values. Please see the Code of Student Conduct at http://www.dos.txstate.edu/handbook/rules/cosc.html and the Honor Code at http://www.txstate.edu/honorcodecouncil/Academic-Integrity.html for definitions, policies, procedures, and sanctions.

- **The Bobcat Pledge**: Being part of our Bobcat community means we respect each other and commit to helping create a healthy and safe learning and working campus environment. Every student, faculty and staff member must take responsibility for practicing healthy behaviors and following the health and safety guidelines established by Texas State to prevent the spread of COVID-19 on campus and in the surrounding community. See also https://www.txstate.edu/coronavirus/road-map/bobcat-pledge.html.
- **Civility in the classroom**: Civility in the classroom is very important for the educational process and it is everyone's responsibility. If you have questions about appropriate behavior in a particular class, please address them with your instructor first. Disciplinary procedures may be implemented for refusing to follow an instructor's directive, refusing to leave the classroom, not following the university's requirement to wear a cloth face covering, not complying with social distancing or sneeze and cough etiquette, and refusing to implement other health and safety measures as required by the university. Additionally, the instructor, in consultation with the department chair/school director, may refer the student to the Office of the Dean of Students for further disciplinary review. Such reviews may result in consequences ranging from warnings to sanctions from the university. For more information regarding conduct in the classroom, please see AA/PPS 02.03.02, Section 03: Courteous and Civil Learning Environment at https://policies.txstate.edu/division-policies/academic-affairs/02-03-02.html and Code of Student Conduct, number II, Responsibilities of Students, Section 02.02: Conduct Prohibited at https://studenthandbook.txstate.edu/rules-and-policies/code-of-student-conduct.html.
- **Emergency Management**: In the event of an emergency, students, faculty, and staff should monitor the Safety and Emergency Communications web page at https://safety.txstate.edu/. This page will be updated with the latest information available to the university, in addition to providing links to information concerning safety resources and emergency procedures. Faculty, staff, and students are encouraged to sign up for the TXState Alert system.
- **The University Mission**: Texas State University is a doctoral-granting, student-centered institution dedicated to excellence and innovation in teaching, research, including creative expression, and service. See https://universityplan2023.avpie.txstate.edu/overview/Texas-State-Mission--Goals--and-Initiatives-.html for additional information.
- **Sexual Misconduct Reporting (SB 212)**: Effective January 2, 2020, state law (SB 212) requires all university employees, acting in the course and scope of employment, who witness or receive information concerning an incident of sexual misconduct involving an enrolled student or employee to report all relevant information known about the incident to the university's Title IX Coordinator or Deputy Title IX coordinator. According to SB 212, employees who knowingly fail to report or knowingly file a false report shall be terminated in accordance with university policy and The Texas State University System Rules and Regulations. See also TSUS Sexual Misconduct Policy at https://www.txstate.edu/oei/title-IX/TSUS-Sexual-Misconduct-Policy.html.

TENTATIVE COURSE OUTLINE – GENERAL DESCRIPTION OF SUBJECT MATTER

NOTE: This outline is subject to modification. Students will be notified of any changes.

Week	**Date**	**Lecture Topic**	**Lab**
1	January 19	Introduction to the course	**No labs this week**
2	January 24 January 26	History of cartography Principles of geodesy	Lab 1: Getting Started with Illustrator **[meeting online]**
3	January 31 February 2	Cartographic projections Cartographic generalization	Lab 2: Layers in Illustrator
4	February 7 February 9	Charts 1 and 2	Lab 3: Projections, Brushes and Symbols
5	February 14 February 16	Statistics and map interpretation Data classification	Lab 4a: Generalization and Transformations Part I
6	February 21 February 23	Cartographic symbolization 1 and 2	Lab 4b: Generalization and Transformations Part II
7	February 28 March 2	Cartographic practicum 1 Thematic maps 1	Lab 5: Data Joins, Classifications and Charts
8	March 7 March 9	Thematic maps 2 In-class activity 1	Lab 6: Point Symbol Design
9	**March 14 and 16**	**Spring Break. No classes**	**No labs this week**
10	March 21 March 23	Pre-midterm review and **final project discussion** **Midterm exam**	Lab 7: Map Export and Data Symbolization
11	March 28 March 30	Cartographic lettering 1 and 2	Lab 8: Lettering in Illustrator
12	April 4 April 6	Map elements and composition Color in cartography 1	Lab 9: Map Layout and Inset
13	April 11 April 13	Color in cartography 2	Lab 10 Activity
14	April 18 April 20	Terrain visualization GPS and remote sensing in cartography 1	Final Project Work
15	April 25 April 27	GPS and remote sensing in cartography 2 R Cartography Research Day	Final Project Work
16	May 2	**Last day of class**. Pre-final review. **Final project due 11:59 pm on this day**	

FINAL EXAM:

Monday, May 9, 8:00 a.m. to 10:30 a.m.