

GIS 668
Communicating Geographic Information
Syllabus

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Course Overview: This seminar will focus on communicating geographic information with maps, one of the main components of the academic discipline known as cartography. We will do so with a modern perspective that includes product design, online interactive maps, their design, and the design of how they are promoted, found, and consumed. We will examine established cartographic design principles, including page layout, scale and projection, symbol design, classification of statistical data, and graphic design principles.

Course structure: This course will be structured as a seminar, with all participants leading discussions about different aspects of cartography each week.

At the beginning of the semester, you will select two topics for each class meeting on which you will make two short presentations, and then lead discussions on that topic. Discussion topics are covered in the text and will be selected/assigned during the first week of class (using the Google spreadsheet

https://docs.google.com/spreadsheets/d/1SKREGFymBaa991FPPOIpiuNm7nTf8ZGa/edit?usp=drive_link&ouid=117447267672866454122&rtpof=true&sd=true

Each of your presentations should include at least five slides with a maximum of six bullet points each (do not use full sentences), plus two maps, including one that you have personally produced, that illustrates the topic you are discussing. You should also include material from the UCGIS GIS&T Body of Knowledge (<https://gistbok.ucgis.org/>) wherever your topic is aligned with one or more of their chapters.

You will meet with me one-on-one 2-5 days before each class meeting to practice and review your presentations. These will be scheduled at a time that works for both of us. I will provide feedback that you should address in your final versions presented to the class.

Each topic presentation and discussion will last approximately 9 minutes. All seminar participants are expected to have read all relevant sections of the text in advance of the presentations of your classmates so that you can participate fully in the discussion, hopefully bringing useful questions to ask the presenter. A short quiz on the day's topics will be administered at the beginning of each class session to check on your preparation.

Required Text

- *Cartography*. Kenneth Field. ESRI Press. 2018
- *GIS&T Body of Knowledge*. <https://gistbok.ucgis.org/> UCGIS. 2024
- Selected volumes from the *Atlas of Design* series, published by NACIS (available for loan from my collection)

Other Highly Recommended Readings

- *Thematic Cartography and Geographic Visualization*. 3rd Edition. Terry Slocum, Robert McMaster, Fritz Kessler, and Hugh Howard. Prentice Hall, 2008.
- *Cartography: Thematic Map Design*, 6th Edition. Borden Dent, Jeff Torguson, and Thomas Hodler. 2009.
- *Designing Better Maps: A Guide for GIS Users*. Second edition. Cynthia A. Brewer. ESRI Press. 2016
- *Elements of Cartography*, 6th Edition (1995), by Robinson, Morrison, Muehrcke, Kimerling, and Guptill.
- *Making Maps: A Visual Guide to Map Design for GIS*. Third Edition. John Krygier and Denis Wood. The Guilford Press. 2016.
- *Principals of Map Design* (2010) by Judith Tyner
- *How to Lie with Maps* 3rd edition (2018), by Mark Monmonier. A popular witty brief on map distortions, inaccuracies, and errors.
- *Map Use* 8th edition (2012) by A. Jon Kimerling, Aileen R. Buckley, Phillip C. Muehrcke, and Juliana O. Muehrcke.
- *The Visual Display of Quantitative Information* (1983), by Edward Tufte. A widely-respected compendium of guidelines for the successful design of charts, graphs, and maps.

Meeting times. The class will meet from 9:00 am to 10:50 am, Pacific time, on Wednesdays, beginning January 8th and ending April 16th. Note that we will not meet on February 26th (Esri Federal GIS Conference), March 5th (CAS Spring Break), or March 12th (Esri DevSummit). Also note that we will meet on Wednesday April 16th, even though It Is a "Make Up Monday" according to the University Registrar.

Preparation and participation. Attendance, preparation, and participation are all expected, and will be used to decide borderline grading cases.

Expectations

- You will meet with me one-on-one 2-5 days before each class meeting to practice and review your presentations.
- You will read all of the topics that are to be presented *before* each class meeting, and come prepared to discuss each topic.
- In accordance with university requirements for graduate work, a minimum of four hours of outside work is expected for every hour of contact time.

Assessment/Grades. The grading scheme in this graduate level class may be different than you expect. On your presentations or quizzes you may receive qualitative grades in the form of one or two words from the list below. You may find most of these defined in the University of Redlands Catalog but they basically mean exactly what you would expect.

Excellent/Outstanding (4.0)
Very Good (3.7)
Good (3.3)
Acceptable (3.0)
Below standard (2.7)
Fair (2.3)
Poor (2.0)

Grading:	Preparation for individual meetings with me	25%
	Topic presentations/leading discussions.....	50%
	Quizzes	10%
	Participation in discussions	15%

SYLLABUS STATEMENTS from the College Dean's Office

Accommodations

If you are a student with a disability that qualifies for academic accommodations under the Americans with Disabilities Act and Section 504 of the Rehabilitation Act, contact Academic Success and Accessibility (ASA). ASA is located on the ground floor of the Armacost Library, down the hall from the Jones Computer Center (past the restrooms). You can reach the office at 909-748-8069 or asa@redlands.edu and online [here](#).

Office of Equity and Title IX

In order to provide a safe and equitable learning environment for all students, faculty, and staff, discrimination, harassment, retaliation, sexual misconduct, and sexual harassment (including sexual assault, dating or domestic violence, and stalking) are not tolerated at the University of Redlands. The University prohibits unlawful discrimination or harassment (as defined in the [Policy Prohibiting Discrimination, Harassment, Sexual Misconduct, and Retaliation](#)) on the basis of age, color, race, ethnicity, national origin, ancestry, sex, marital status, pregnancy, status as a complaining party of domestic violence, sexual orientation, gender, gender identity or expression, physical or mental disability, genetic information, religion/creed, citizenship status (except to comply with legal requirements for employment), military/veteran status, or any other characteristic protected by law. If you or someone you know has experienced or experiences any of these behaviors, know that you are not alone. You can contact the Office of Equity and Title IX for reporting options, supportive measures, and resources to support you.

All faculty and staff at the University of Redlands are considered “Responsible Employees,” which means that if you tell me about a situation involving any of the above, I must report the matter to the Office of Equity and Title IX. Although I make that report, you are in control of how you would like to proceed, including whether or not you wish to pursue a formal complaint. Our goal is to make sure you are aware of the range of reporting options available to you and have access to the support and resources you need.

To report an incident directly, you can:

- Contact the Interim Director of Equity & Title IX, Christopher Jones, at 909-748-8289 or titleix@redlands.edu
- [Report online](#) at: www.redlands.edu/titleixandequity

You can also report to local law enforcement at 909-798-7681, ext. 1. If you are ever in immediate danger, please call 911 or email/text 911@redlandspolice.org if you cannot call.

To reach Public Safety on campus, call 909-748-8888 or use the [Rave Guardian](#) app.

If you wish to speak to someone confidentially (meaning not connecting with the Office of Equity and Title IX Office), you can contact the following resources:

Campus: [Counseling Center](#): 909-748-8108 or 24-Hour Crisis Line: 909-748-8960

[TimelyCare](#), 24/7 emotional support; 12 free telehealth counseling sessions

Community: [Partners Against Violence](#), 24-hour sexual assault crisis line: 909-885-8884

[Option House](#), 24-hour dating/domestic violence crisis line: 909-381-3471

Online: <https://www.rainn.org/> (sexual assault); <https://www.loveisrespect.org/>

For more information, visit www.redlands.edu/titleixandequity

ADDITIONAL RESOURCES

Counseling Center

The Counseling Center provides free and confidential mental health services, including short-term individual therapy, group therapy, single session therapy, consultations, and urgent appointments to all students with in-person or virtual options. Our Counseling Center is committed to inclusivity and to providing a supportive space for everyone. Please call 909-748-8108 to schedule an appointment or email counseling_center@redlands.edu. If a student is in crisis, please call 909-748-8960 for the 24/7 mental health crisis line. For more information on our resources, go [here](#). Another option for individual therapy for all students is [TimelyCare](#), which provides virtual therapy immediately (Talk Now) or up to 12 scheduled virtual therapy sessions per year. Students can choose their therapist from a list of providers for the scheduled therapy option.

Conflict Resolution Center

Experiencing a conflict? Whether it's with a friend, roommate, another member of a student organization, or faculty or staff member, conflicts happen. Learning to navigate conflicts is important to success in virtually any field, and a vital step in being a part of a community and having healthy, meaningful relationships with others. See <https://sites.redlands.edu/conflict-resolution-center/student-resources/> for more information.

CARE Team

The University [CARE Team](#) exists to help provide support and resources to students that are overwhelmed, experiencing significant distress, or possibly present some risk to themselves or others. As a faculty member, I may reach out to students about whom I am concerned to talk individually, and/or refer them to the CARE Team. If you have concerns about a fellow student, consider sharing your concern with the CARE Team via their [online form](#). This is part of who we are as a caring, proactive community where we all look out for one another. Additionally, if you feel that you or someone else needs immediate mental health support, the University has a 24/7 mental health crisis line at [909-748-8960](#), and the [Timely Care](#) app, which offers on-demand emotional care. Both services connect to a live, licensed counselor.

Book Lending Program:

The Book Lending Program is an initiative to ensure the academic success of First-Generation students (students who are the first to go to college in their families and who meet a particular estimated family contribution [EFC] level). Funded through alumni donations, this program provides books and other classroom materials, when needed, for First-Generation students who could not otherwise afford to purchase them. Books are returned at the end of the course, to be used by other First-Generation students the next semester. The program works alongside the Library and faculty members to ensure the availability of books and classroom materials. For more information, see

<https://www.redlands.edu/student-affairs/campus-diversity-and-inclusion/programs/first-generation-student-programs/book-lending-program/>

Contact: blp@redlands.edu

Emergency Student Loans:

Student Financial Services (SFS) administers a short-term, no-interest loan fund to assist students experiencing an emergency or cash-flow problem. Except in unusual circumstances, these loans do not exceed \$200 and are billed to the student's account. Evidence of repayment ability is a prerequisite for all short-term loans made to students. Students are not eligible for more than one emergency student loan per term.

Contact: SFS@redlands.edu or x8047

Student Affairs Discretionary Fund:

These endowed funds in Student Affairs can be used to support student success and remove impediments that otherwise may cause the student to stop or leave school. To utilize this fund, divisional leadership should be made aware of the student in dire need of financial support. This support can be anything from personal expenses, such as utility bills, gas money, emergency trips home due to family tragedy, off-campus counseling, and other medical costs, and occasionally mental health assessment expenses. Students receive grants based on their financial need.

Contact: student_affairs@redlands.edu

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Student Food Support Pantry:

The Student Food Support Pantry is a resource available to all established full and part-time University of Redlands students facing food insecurities. The Pantry is located on the north side of North Hall. This space is an open, no-questions-asked space with dried and canned goods, and non-perishable items, as well as seasonal fresh produce from our sustainable farm and limited refrigerated goods. Food for this distribution is provided in partnership with Feeding America Riverside and San Bernardino. It is also funded through private donations, ASUR, and the Office of Community Service Learning. For more information, please contact SURF@redlands.edu

A **Student Lounges Map** can be found [here](#) on the University website.