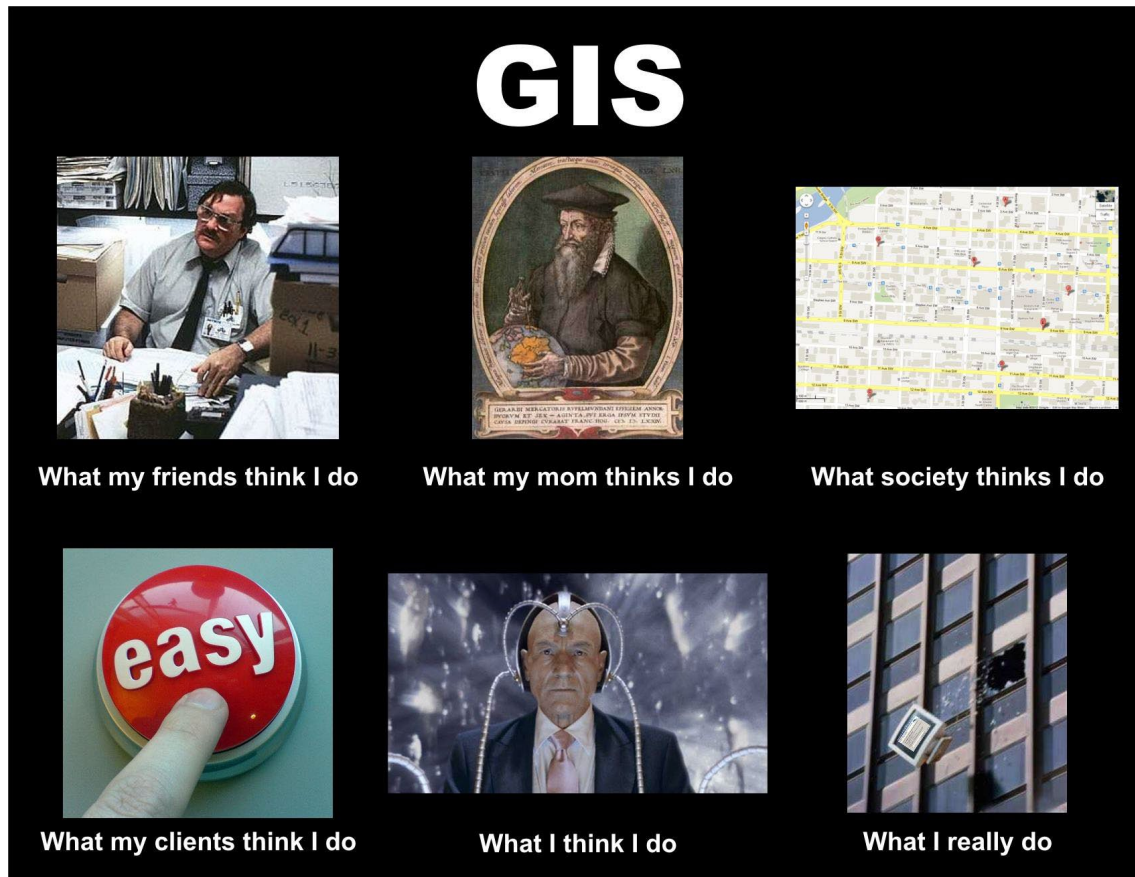


GIS 475: GIS Senior Seminar  
Syllabus



[How to Explain to Vampires What We Do \(In the Shadows\)](#)

Spring 2025  
Prof. John Glover  
Office, Gannet #13

Hours: T 1-2, F 1-2 and by appt.  
Phone, x8608  
Email, [John\\_Glover@redlands.edu](mailto:John_Glover@redlands.edu)

This senior seminar represents the culmination of your undergraduate career as a GIS major. The course essentially looks in two directions, the past and the future. It gives you the chance to reflectively analyze the work you have accomplished over the past two to four years as you construct a portfolio and demonstrate the skills and knowledge you have gained in a senior individual project. Both the portfolio and project will be formatted into separate Story Maps. The senior project can take three forms. For those students that have a second major, this senior project can be GIS version of the senior capstone/thesis/etc. that you are pursuing toward that second major or a project that significantly builds upon and improves geospatial research undertaken in a previous course. If either of these two options work for you, then you will also be collaborating with a sponsoring professor outside of this course, especially in terms of content. If you are in need of an entirely new project, I can also suggest new and original reserach projects utilizing data and topics from my own research or some of my colleagues.

While the portfolio and project look to the past they also point your way to the future as documents that can be used for graduate school or job applications. Intensive work with the University of Redlands Office of Career and Professional Development (OCPD), an introduction to Esri certifications and internships, lightning talk preparation and delivery, and participation in the UR Spatial Symposium and/or the Esri User Conference also serve to prepare you for a future career in the field of GIS. Guidelines for completing these requirements will be handed out in class and posted to the course Canvas page.

### **Readings:**

All course readings are available in electronic form on the course Canvas page organized by week. These readings are designed to expose you to themes and issues in the field and lend some analytical weight to your work in the class.

### **GIS/Spatial Events**

Students are required to attend/participate in (and report to class on) at least 3 spatial events on and off campus, including:

- GIS Symposium
- Mappy hour (or their new incarnation)
- Center for Spatial Business Speaker Series
- Esri Webinars
- Esri Young Professional Network (YPN) meetings/events

### **Graded projects**

- Spatial portfolio (in StoryMap form)
- Lightning talk
- Three spatial event attendance/in-class reports of 1-2 pages typed, double-spaced
- Senior Individual project (in StoryMap form)
- Final presentation of senior project

### **Course Grade Breakdown**

Spatial Portfolio (30%), Lightning Talk (10%), Spatial Event Attendance and Reports (10%), Senior Individual Project (40%), Final Presentations (10%)

### **Grading Scale**

4.0 A	100%-95%
3.7 A-	94%-90%
3.3 B+	89%-87%
3.0 B	86%-84%
2.7 B-	83%-80%
2.3 C+	79%-77%
2.0 C	76%-74%
1.7 C-	73%-70%

1.3 D+	69%-67%
1.0 D	66%-64%
0.7 D-	63%-60%
0.0 F	59% and below

### Academic Honesty

Please familiarize yourself with the standards of academic honesty found in the University catalog (pp. 16-22). You will be held to the standards outlined there, and, if found to be in violation, subject to the appropriate sanctions which can include failure of the course.

## Schedule

### Week 1 A Review of Geospatial Science

1/7 Introduction and Overview

1/9 Discussion

#### *Readings:*

Bednarz, R. S., & Lee, J. (2011). The components of spatial thinking: empirical evidence. *Procedia - Social and Behavioral Sciences*, 21, 103-107.

<https://doi.org/http://dx.doi.org/10.1016/j.sbspro.2011.07.048>

Klippel, A., Hardisty, F., & Li, R. (2011). Interpreting Spatial Patterns: An Inquiry Into Formal and Cognitive Aspects of Tobler's First Law of Geography. *Annals of the Association of American Geographers*, 101(5), 1011-1031.

<https://doi.org/10.1080/00045608.2011.577364>

<https://gistbok.ucgis.org/> (source of additional references)

### Week 2 Interdisciplinarity in GIS

1/14 Discussion

#### *Readings:*

Ricker, B. A., Rickles, P. R., Fagg, G. A., & Haklay, M. E. (2020). Tool, toolmaker, and scientist: case study experiences using GIS in interdisciplinary research. *Cartography and geographic information science*, 47(4), 350-366.

<https://doi.org/10.1080/15230406.2020.1748113>

Senior Individual Project Idea(s) Due in Writing

1/16 Discussion

#### *Readings:*

Raento, P. (2020). Interdisciplinarity. In (Second Edition ed., pp. 357-363). Elsevier Ltd. <https://doi.org/10.1016/B978-0-08-102295-5.10659-6>

Bilgili, M. (2018). The Lack of Interdisciplinarity in Undergraduate Geography Teaching in Turkey. Journal of education and training studies, 6(2), 114. <https://doi.org/10.11114/jets.v6i2.2957>

**Week 3      Exploring Esri Certifications and Courses and OCPD, AlumniFire Networking, Internship/Job Searches**

1/21      <https://www.esri.com/training/certification/>  
<https://www.esri.com/training/certification-find-exam/>  
<https://community.esri.com/t5/esri-technical-certification-program-information/3-steps-to-selecting-your-esri-certification-exam/ba-p/1272049>  
<https://www.esri.com/training/certification-find-exam/search/>

1/23      OCPD Visit  
*(work with OCPD to identify spatial career paths, contact Redlands alumni working in spatial careers, find internships/jobs; [ESRI internship](#) applications accepted from Sept 1- Dec 31 each year)*

Reading: GeoTech Center. (2019). Competency Model Clearinghouse - Geospatial Technology Industry Competency Model. Geotechcenter.org.

**Week 4      Spatial Portfolio Work**

1/28      In-class support for getting started

1/30      Prof. available for individual consultations

**Week 5      Spatial Portfolio Work**

2/4      In-class check-in on progress

2/6      Prof. available for individual consultations

**Week 6      2<sup>nd</sup> Major Capstone/Individual Senior Project Support**

2/11      In-class support for getting started

2/13      Prof. available for individual consultations

**Week 7      2<sup>nd</sup> Major Capstone/Individual Senior Project Support**

2/18	Prof. available for individual consultations
2/20	Prof. available for individual consultations
<b>Week 8</b>	<b>2<sup>nd</sup> Major Capstone/Individual Senior Project Support</b>
2/25	In-class check-in on progress
2/27	Prof. available for individual consultations
<b>Week 9</b>	<b>Spring Break</b>
3/4-3/6	
<b>Week 10</b>	<b>Project Story Map Polishing, Submission of Initial Draft to UR Spatial Symposium</b>
3/11	In-class work on Project Story Map
3/13	In-class work on Project Story Map <i>(students are required to submit a StoryMap, poster, or lightning talk to the UofR Spatial Symposium or the ESRI User Conference)</i>
<b>Week 11</b>	<b>Lightning Talk Practice</b>
3/18	First session of practice talks
3/20	Second session of practice talks (if needed) <i>(all students do in-class presentations of a 5-minute lightning talk version of their Project StoryMap, poster, or talk)</i>
<b>Week 12</b>	
3/25	Cesar Chavez Day-No Class
3/27	Prof. available for individual consultations
<b>Week 13</b>	<b>Support for GIS Day/Spatial Symposium</b>
4/1	TBD
4/3	TBD

(students help to plan/set up/host campus GIS Day (fall semester) or Spatial Symposium (spring) events

**Week 14      Geospatial Ethics (ethical, legal, social implications [ELSI] of using spatial data)**

4/8              Discussion  
Readings:  
<https://sites.psu.edu/gisethics/> (case study examples) Each student chooses one example to discuss in class

Schulze, U. (2021). "GIS works!"—But why, how, and for whom? Findings from a systematic review [https://doi.org/10.1111/tgis.12704]. *Transactions in GIS*, 25(2), 768-804.

4/10              Discussion  
Readings:  
Elwood, S. (2006). Critical issues in participatory GIS: Deconstructions, reconstructions, and new research directions. *Transactions in GIS*, 10(5), 693-708.

Harris, T., & Weiner, D. (1998). Empowerment, marginalization, and "community-integrated" GIS. *Cartography and geographic information systems*, 25(2), 67-76.

**Week 15**

4/15              Last Class **Portfolio Story Map Due** (copy and paste link to Course Canvas page)

**Week 16      Individual Presentations of Spatial Capstone/Individual Project Work and Final Version Due**

4/18-22          Finals tba **Senior Individual Project Story Map Due** (copy and paste link to Course Canvas page)

**IMPORTANT INFORMATION AND RESOURCES**

**Accommodations**

If you are a student with a disability requesting reasonable academic accommodations in this course, please contact Academic Support and Accessibility (ASA). ASA is located in the Student Success Center on the ground floor of the Armacost Library. You can reach the office at 909-748-8069 or [asa@redlands.edu](mailto:asa@redlands.edu). All requests for reasonable accommodations require registration with ASA in advance of need. Faculty, students, and ASA will work together regarding classroom accommodations. You are encouraged to discuss approved accommodations with your faculty. More information is available on the [accessibility webpage](#).

## 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.

Many 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](mailto:titleix@redlands.edu)
- [Report online](#) at: <https://www.redlands.edu/offices-directory/offices/office-of-equity-and-title-ix>

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](mailto: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](http://www.redlands.edu/titleixandequity)

#### Optional Syllabus Statements

In addition to the above, instructors may wish to include resources available to our students. Some suggested language has been provided by the offices responsible.

#### Writing Tutoring

Peer writing tutoring is available in-person and online throughout the semester. You can visit a tutor at multiple stages of your writing process for each project/ assignment/ essay/ etc. You and your tutor can have a brainstorming conversation if you aren't sure where to begin, and you can continue to meet throughout your drafting and revision process. Please note that tutors can assist with writing in ALL disciplines, not just the humanities.

You can schedule a tutoring session at <https://redlands.mywconline.com>.



You can contact the office of Academic Support and Accessibility at [asa@redlands.edu](mailto:asa@redlands.edu) or call 909-748-8069 if you have any questions. They're happy to help any time!

### Subject Tutoring

Peer subject tutoring is available in-person and online throughout the semester for many courses. You can select your specific course when you log in to the Subject Tutoring Fall 2024 schedule at <https://redlands.mywconline.com>. Select the tutor and time of your choice. All tutors are students who have taken the same course, often with the same instructor. You will need to book your tutoring session at least one day in advance and provide details about what you would like to work on to allow your tutor enough notice and preparation time.

You can meet with your tutor as little or as often as you'd like, up to two hours per week per course. Students at the UoR use tutoring to work on all academic goals, from better understanding difficult concepts to achieving a 4.0. Tutoring is individualized to each student.

You can contact the office of Academic Support and Accessibility at [asa@redlands.edu](mailto:asa@redlands.edu) or call 909-748-8069 if you have any questions. They're happy to help any time!

### 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](mailto: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.

### 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](tel:909-748-8960), and the [Timely Care](#) app, which offers on-demand emotional care. Both services connect to a live, licensed counselor.

#### 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 eligible one emergency student loan per term.

**Contact:** [SFS@redlands.edu](mailto:SFS@redlands.edu) or x8047

#### 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 (look for the banner with Bulldog on it). Hours of operation are Monday through Friday from 11:30 a.m. to 6:00 p.m. year-round. 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 and the Office of Community Service Learning. For more information, please contact [SURF@redlands.edu](mailto:SURF@redlands.edu)

#### 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. Please contact [crc@redlands.edu](mailto:crc@redlands.edu) for more information.

#### 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-life/student-resources/diversity-on-campus/programs/book-lending-program>

**Contact:** [blp@redlands.edu](mailto:blp@redlands.edu)

## Technology Lending

The Armacost Library provides loans of laptops and other technology, including Bluetooth headphones, digital audio recorders, and smart pens, which can assist with note-taking and audio recording. For those needing ergonomic or accessibility devices, the library has ergonomic keyboards, high visibility keyboards, an ergonomic joystick, and an ergonomic trackball. These resources are accessible to all University of Redlands students on a first-come, first-served basis. For a full list and to check the availability of these items, please visit the [Armacost Library webpage](#) or call (909) 748-8022.

## Student Discretionary Fund:

The Student Discretionary Fund, managed by Student Affairs, is designed to support student success by addressing financial challenges that could otherwise lead a student to pause or discontinue their education. Divisional leadership will be informed of the student's need for financial assistance to access this fund. The support provided can cover a range of personal expenses, including utility bills, gas money, emergency travel home due to a family tragedy, off-campus counseling, medical costs, and occasionally mental health assessments. Grants from this fund are awarded based on the student's financial need. To apply, students can complete the Student Discretionary Fund Application, which is available at <https://forms.office.com/r/aX7dvAnbG2> or contact [student\\_affairs@redlands.edu](mailto:student_affairs@redlands.edu).

## Student Lounges:

Lounges for all students to sit, work, and eat can be found [here](#) on the University website.

## References

University of Redlands. (2023). *Academic Catalog*. 2023-2024 edition.