

San José State University
Department of Urban & Regional Planning, Program in Geography
GEOG 135, Research Methods in Geography &
GEOG 290, Seminar in Research Design
Fall 2023

Instructor: Pietro Calogero
Email: pietro.calogero@sjsu.edu
Office Hours: On Zoom, held via appointment.
Class Days & Time: Mondays, 5:00-7:15pm
Classroom: Studio on the Street: 76 S. First Street, San José

Course Description

This is a course in research project design. This includes qualitative, quantitative, and mixed research methods, and how do design these in a way that is geospatially informed. In addition to the methods, this course will also cover the formation of a conceptual framework; a literature review; ethics and Human Subjects approvals; and data visualization and presentation.

Graduate students will need to demonstrate competence in specific use-cases of GIS for their proposals; undergraduates will only need to develop a basic understanding of GIS sufficient to generate graphics for their research.

Course Objective

Undergraduates will develop a research proposal which can inform a graduate program application. Graduate students will develop a research proposal for their masters thesis.

Course Learning Outcomes (CLOs):

Upon successful completion of this course, students will be able to:

- **CLO 1 Define and apply basic geographic tools and techniques.**

Students will demonstrate basic GIS competence through several short tasks to obtain, manipulate, and present geospatial data. Students will incorporate these skills into the process of research design.

- **CLO 2 Demonstrate the ability to define a research problem and design and execute a research program.**

All course assignments plus the final sourcing, reading, and analytical techniques to support each geography student's research problem and program.

- **CLO 3 Demonstrate the ability to communicate research results in professional written, graphic, and verbal form.**

Students will present their specific research through written assignments, presentations, and display charts, graphs, and maps.

- **CLO 4 Demonstrate understanding of how geographic research and geotechnology may be applied to a variety of problems.**

Students will consider how data can be visualized in ArcGIS, ArcPro, ArcGIS Online, open-source platforms, or other software for problem solving.

Course Assignments

Assignment	Points	Due Date	Course Learning Outcomes
Abstract of Resch Proposal	15	August 31	CLO 3, 4
Ten Survey Questions	10	September 14	CLO 2, 4
Choropleth Map	10	October 5	CLO 1
Literature Review	20	November 9	CLO 2, 4
Presentations	20	Nov 27 & Dec. 4	CLO 2, 3, 4
Research Proposal	25	December 11	CLO 2, 3, 4

Grades for the course will be assigned based on your percentage of total points earned on all assignments according to the following distribution:

A+ = 100 to 96	B+ = 89 to 87	C+ = 80 to 78	D+ = 69 to 67	F = 59 points or lower
A = 95 to 93	B = 86 to 84	C = 77 to 73	D = 66 to 63	
A- = 92 to 90	B- = 83 to 81	C- = 72 to 70	D- = 62 to 60	

Topics

Week 1, August 21: Introduction to the Course

Week 2, August 28: Quantitative, Qualitative, and Mixed Methods Research Design

Week 3, [Labor Day. No Class]

Week 4, September 11: Levels of Measurement and their implications for Survey Design

Week 5, September 18: Using data.census.gov for ACS data

Week 6, September 25: Guest Speaker, Bo Yang: UAVs for geospatial analysis

Week 7, October 2: Choropleth Maps and Normalization of Data

Week 8, October 9: Literature Review strategies; Peer-Reviewed Sources; Bibliographic software

Week 9, October 16: Ethics and Institutional Review Board application

Week 10, October 23: Quantitative Research: null-hypotheses and statistical tests

Week 11, October 30: Examples of tests using spreadsheet software

Week 12, November 6: Qualitative Research Methods: ways to bound the scope

Week 13, November 13: Mixed Methods and Cross-Verification of Theory

Week 14, November 27: Presentations of student research

Week 15, December 4: Presentations of student research

University Policies

General Expectations, Rights and Responsibilities of the Student

As members of the academic community, students accept both the rights and responsibilities incumbent upon all members of the institution. Students are encouraged to familiarize themselves with SJSU's policies and practices pertaining to the procedures to follow if and when questions or concerns about a

class arises. See University Policy S90–5 at <http://www.sjsu.edu/senate/docs/S90-5.pdf>. More detailed information on a variety of related topics is available in the SJSU catalog, at <http://info.sjsu.edu/web-dbgen/narr/catalog/rec-12234.12506.html>. In general, it is recommended that students begin by seeking clarification or discussing concerns with their instructor. If such conversation is not possible, or if it does not serve to address the issue, it is recommended that the student contact the Department Chair as a next step.

Dropping and Adding

Students are responsible for understanding the policies and procedures about adding, dropping, and grade forgiveness. Refer to the current semester's Catalog Policies section at <http://info.sjsu.edu/static/catalog/policies.html>.

Add/drop deadlines can be found on the current academic year calendars document on the Academic Calendars webpage at http://www.sjsu.edu/provost/services/academic_calendars/. The Late Drop Policy is available at <http://www.sjsu.edu/aars/policies/latedrops/policy/>. Students should be aware of the current deadlines and penalties for dropping classes.

Information about the latest changes and news is available at the Advising Hub at <http://www.sjsu.edu/advising/>

Academic integrity

Your commitment, as a student, to learning is evidenced by your enrollment at San Jose State University. The University Academic Integrity Policy S07-2 at <http://www.sjsu.edu/senate/docs/S07-2.pdf> requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The Student Conduct and Ethical Development website is available at <http://www.sjsu.edu/studentconduct/>.

Campus Policy in Compliance with the American Disabilities Act

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 at http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf requires that students with disabilities requesting accommodations must register with the Accessible Education Center (AEC) at <http://www.sjsu.edu/aec> to establish a record of their disability.