



Advanced Research Methods for Family, Youth and Community Sciences

FYC 6802, Fall 2025

Class meets: Thursday 9:35 AM – 12:35 PM @ Weimer Hall 1098

Instructor:

Xiaoya Zhang, PhD

xiaoyazhang@ufl.edu

3028 McCarty Hall D

Office Hours: by appointment

Course Description: Research tools and techniques appropriate for an ecological model, emphasizing a multi-method approach.

Course Objectives -- After completing this course, you will be able to:

- Transform scientific inquiries into testable hypotheses.
- Understand the fundamental principles and applications of various research methods, including quantitative, qualitative, and mixed methods.
- Choose and apply appropriate methods for specific research questions.
- Understand the basics of statistical software.
- Identify appropriate statistical tests for different research questions.
- Evaluate the empirical evidence and conclusions reached in research about social problems based on research methods.
- Improve research communication and dissemination skills through writing research proposals, reports and papers suitable for academic publication.

Textbook & Materials

Babbie, Earl. (2021) The practice of social research (15th Ed.). Cengage Learning Custom Publishing. ISBN: 978-0-357-36076-7

Optional: Bernard, H. R. (2013). *Social research methods: qualitative and quantitative approaches* (2nd ed.). SAGE Publications, Inc

Additional readings will be assigned and available on Elearning.

Software

This course will provide an overview for multiple statistical software, emphasizing the understanding of working logic and different features rather than the proficiency of using these software. That said, students will gain hands-on experience with basic descriptive and

inferential statistical analysis using multiple statistical software. The software can be freely accessed at:

UF Apps: <https://info.apps.ufl.edu/>

R Studio: <https://posit.co/downloads/>; <https://cran.r-project.org/> (need to download both)

Policies for AI Generative Tools

Generative AI tools may be required in this course. Generative AI use is promoted in some tasks and will be clarified in assignment instructions. Any work that is done using generative AI must be cited in your submission.

Policies for Assignment Submissions

- Assignments and all other required are due before 11:59 PM on the date indicated on E-learning.
- Submit all materials through E-learning.
- If you have a valid reason to believe you will be late with a submission, contact the instructor by e-mail to discuss your options.
- Late submissions (assignments, postings, etc.) will result in a reduction of 10 points per day to the assignment score and after 48 hours, a score of 0 will be submitted for the assignment.

Course Requirements & Assessments

Component of Grade	Possible Points
One-page research topic	50
CITI training	50
Leading class discussion	200
Class discussion participation	100
First draft of research proposal	100
Peer review	100
Final project	200
Presentation	200
TOTAL	1000

Find below the description for each of the course requirements & assessments. More details are available on E-learning.

- One-page research topic (Total 50 points max)

This course highlights your learning and practice of research design and methods. The first step is to choose a research topic you are interested in. For this assignment, you will identify a problem to address and form research questions you would like to focus on throughout the

course. The research questions should be testable, and the variables should be clearly defined. Later, you will design a study to test the research questions. This is the first step for the research proposal that you will develop throughout the semester, and you could refine and add more details as you learn more about scientific methods.

- Proof of Completion of IRB and CITI training (Total 50 points max)

If you are involved in research with human subjects, you must complete a mandatory training offered via MyTraining at UF. Follow the instructions for course number IRB803:
<https://irb.ufl.edu/index/requiredtraining.html>.

- First draft of research proposal (Total 100 points max)

After learning about a variety of research design and methods, you should be able to choose a design to test your research questions. For this assignment, highlight the reasoning of why you choose the design, the strengths and potential limitations of the design, and how to increase the validity and reliability of the study.

- Peer review (Total 100 points max)

Peer review is an important process in academia and being able to provide constructive review for other's work is a critical skill as a researcher. This assignment is designed to provide an opportunity to practice peer review. You need to submit a 2-page report to identify the strengths and limitations of the study to help improve the quality of research proposal you read.

- Leading class discussion (Total 200 points max)

There are 9 weeks that are open for students to lead class discussion. Given the number of students in this class, 2 students will work together in leading each topic. Each pair of students is expected to lead 1-1.5 hours of discussion throughout the semester. The other students are expected to bring at least one question/comment to the class to share and discuss. The purpose of the discussion is to help you to critically evaluate and apply your understanding of the material in a real-world research context.

- Class discussion participation (Total 100 points max)

Everyone in the classroom is expected to be an active and regular participant in class discussions. Students are expected to come to class prepared to discuss the assigned readings and their own research interests and to ask questions related to course topics. Students are also expected to facilitate the engagement of classmates and engage in active listening.

- Project Presentation (Total 200 points max)

Students will prepare a draft presentation in PowerPoint and will do a proposal presentation to their fellow classmates for feedback in a constructive environment. The slides are worth 100 points and the presentation is worth 100 points. More instructions are available through E-Learning. Suggested length: 10-12 slides; 12-minute presentation, 3-5 minutes Q&A.

- Final project (Total 200 points max)

Building on the knowledge gained throughout the semester, you will write a final project with an introduction to the research study (e.g., problem, purpose, background literature, rationale, and research questions) and research methods.

Grading Scale

A	93.5-100%
A-	89.5-93.4%
B+	86.5-89.4%
B	82.5-86.4%
B-	79.5-82.4%
C+	76.5-79.4%
C	72.5-76.4%
C-	69.5-72.4%
D	59.5-69.4%
E	≤59.4%

Tentative Schedule

Week	Topic	Readings	Lab/Activities	Student-lead discussion
1 (8/21)	Introduction, Course expectations & Syllabus review, Introducing programming languages	-	Introducing statistical software	-
2 (8/28)	The basics of social research; Research questions; Variables & Measurement	Chapter 2 & 5 (p. 125-147)	Share research questions; Generating descriptive statistics using software	-
3 (9/4)	Reading productively; research proposal	Chapter 4; Additional readings	Research tool	-
4 (9/11)	Research ethics	Chapter 3; Additional readings	-	OPEN
5 (9/18)	Qualitative methods	Chapter 10; additional readings	-	OPEN
6 (9/25)	Experiment: single factor; multiple factors	Chapter 8	-	OPEN

7 (10/2)	Control; statistical interactions	Additional readings	Understanding statistical interactions	-
8 (10/9)	Sampling	Chapter 7	-	-
9 (10/16)	Survey	Chapter 9	-	OPEN
10 (10/23)	Validity & Reliability	Chapter 5 (p. 148 – 155)	Testing reliability	-
10 (10/30)	Quantitative analysis of qualitative data	Additional readings	-	OPEN
12 (11/6)	Big data and social research	Additional readings	Basics of Natural Language Processing	OPEN
13 (11/13)	Research evaluation	Chapter 12	Peer review	OPEN
14 (11/20)	Presentation			-

University Policies

More information on UF grading policy may be found at:

[UF Graduate Catalog](#)
[Grades and Grading Policies](#)

Students Requiring Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the [Disability Resource Center](#). It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. [Click here for guidance on how to give feedback in a professional and respectful manner](#). Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via ufl.bluera.com/ufl/. [Summaries of course evaluation results are available to students here](#).

University Honesty Policy

UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor

and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” [The Honor Code](#) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see the [Notification to Students of FERPA Rights](#).

Campus Resources:

Health and Wellness

U Matter, We Care:

If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: counseling.ufl.edu/cwc, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or police.ufl.edu.

Academic Resources

[E-learning technical support](#), 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.

[Career Resource Center](#), Reitz Union, 392-1601. Career assistance and counseling.

[Library Support](#), Various ways to receive assistance with respect to using the libraries or finding resources.

[Teaching Center](#), Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.

[Writing Studio](#), 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.

[Student Complaints Campus](#)

[On-Line Students Complaints](#)

University Policy on In-Class Recording

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Other Course Policies

Rules for Class Discussion

Respect others. This course covers a variety of sensitive issues, and students in the class come from a variety of backgrounds. We expect a class atmosphere of tolerance and respect for every individual and their opinion. If anyone feels they have been harmed or misrepresented—by the instructor or any individual in the class—I urge you to speak with me so that the problem can be dealt with immediately. Please do not let feelings build up and interfere with your experience in this course.

Expectations Of Confidentiality

Respect for confidentiality of personal information shared by your classmates is an absolute must. Do not talk to others about personal information your classmates share in discussions. Likewise, if you choose to share personal information or use a friend or family member as a case example, please refrain from using their names and/or identifying information.

Religious Observance

Please check your calendars against the course schedule. Any student having a conflict in the class schedule due to religious observances should contact the instructor as soon as possible so that they can make necessary arrangements.

Note that the instructor reserves the right to adjust the syllabus as needed.