

FYC 6901: Applied Data Analysis in FYCS (Prob Family Youth Com)

Section #901B
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Office Hours: By appointment

Online
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Course Description

This course is designed to introduce FYCS students to basic quantitative data analysis techniques that can be applied to critical social science research questions, public management and policy problems, and program evaluation. The course emphasizes proper pairing of analysis techniques to data types; application and interpretation of statistical analysis; use of data analysis in decision-making; and implementation of data analysis using computer software.

Course Objectives

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

1. Propose questions for analysis that are pertinent to contemporary social issues and public policy applications and programs.
2. Formulate a step-by-step approach for analyzing these research questions.
3. Identify the most appropriate methodological techniques for analyzing research questions and available data.
4. Conduct basic data analyses using the methodologies covered in the course.
5. Properly interpret the results of these analyses.

Course Materials

- Berman, Evan M. and XiaoHu Wang (2018). *Essential Statistics for Public Managers and Policy Analysts*, 4th Edition. Los Angeles, CA: SAGE|CQ Press. (Older editions are acceptable.)
- Aldrich, James O. and James B. Cunningham (2016). *Using IBM® SPSS® Statistics: An Interactive Hands-On Approach*, 2nd Edition. Los Angeles, CA: SAGE. (or a similar SPSS guide)
- (recommended) Berman, Evan M. and XiaoHu Wang (2018). *Exercising Essential Statistics*, 4th Edition. Los Angeles, CA: SAGE|CQ Press.
- Handouts and other written materials will be provided by the instructor and will be available in Canvas.

Course Requirements & Grading

- **Weekly Assignments:** You will be expected to complete a series of weekly homework assignments that test your knowledge of the skills learned in class. These projects, taken together, will account for 30% of your final grade.
- **Final Research Paper:** You will be expected to complete a research paper that uses the data analysis skills acquired during the semester. This project should address a social science research question, policy issue, or community issue of your choice, utilizing either primary (if you've already collected it) or secondary data. The final research paper accounts for 70% of your final grade, including a preliminary paper proposal (10%), the paper (50%), and a final presentation (10%). The proposal is due by **July 6**, the presentation is the week of **August 10**, and the paper is due by **August 12 at noon**.

Information on current UF grading policies for assigning grade points can be found on the [UF web page](#).

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Readings & Attendance

You are responsible for completing all assigned readings before class, as this will facilitate your understanding of lectures, participation in discussion, and may be essential to taking part in data lab instruction. Class attendance is extremely important, and it is essential that you keep up with weekly homework assignments and readings. This is not a typical seminar – each week’s material builds on the previous week, and each week’s class time will include lecture, discussion, and work in the computer lab. In addition, you’ll need to spend time honing your skills with computer software for data analysis. If you need to miss class for some reason, please contact the instructor.

All materials will be provided asynchronously on Canvas (and the R drive), but lectures will be held on Zoom, synchronously, to explain the lecture slides and methods presented. Assignments will be provided and submitted via Canvas, as will discussion boards for student interaction.

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.

Student Support

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting disability.ufl.edu/students/get-started. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodations. Students with disabilities should follow this procedure as early as possible in the semester.

Campus Helping Resources. Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university’s counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance. [University Counseling & Wellness Center](#), 3190 Radio Road, 352-392-1575; 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.

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Research Paper

This project provides students with an opportunity to go through the research process from start to finish, applying the analysis techniques learned in class to a substantive social science research question, policy, or community problem. You'll begin with a research question, formulate hypotheses, find or gather data, conduct statistical analyses, present and interpret the results, and provide recommendations based on your findings.

In completing the research paper, students will:

- Identify a significant research question related to a social, policy, or community issue;
- Choose an appropriate dataset which includes needed variables;
- Conduct appropriate analyses based on the data and variables chosen to properly address the research question using techniques from the course;
- Include a literature review, description of methodology and variables, statistical analysis, interpreted results, and conclusions with recommendations based on the findings.

To ensure that you remain on track, a paper proposal including your research question, proposed dependent and independent variables, and dataset choice is due by **July 6**. However, I recommend you begin this process as soon as possible for the best possible outcome.

SPSS Statistics

This course will use SPSS Statistics 26 for data analysis, which is available via UF Apps (info.apps.ufl.edu). To use SPSS on your laptop hard drive, you may purchase the software from the HUB for \$35 (helpdesk.ufl.edu/software-services/spss/) for install on your personal computer.

How to Access UFApps:

1. Go to <https://apps.ufl.edu>
2. Login using your Gatorlink credentials
3. Install the Citrix Receiver (or opt to use the Light Version)
4. Launch your desired application by clicking on the icon/name

Using the R Drive File

1. Once you're logged into UFApps, launch the R Drive File Storage option
2. Navigate to the Courses folder and find this course-section (FYC 6901 – 901B)
 - The Data Folder will have files related to course assignments & in-class work
 - In the Student Folder, you can **create your own folder** for working on course assignments & in-class work

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Course Outline

Week	Topic	Readings	Assignments
1	Course overview, Intro to SPSS, Intro to Research Design, Finding Data	Berman: Chapter 1, 5 Aldrich: Chapter 1-3	
2	Measurement & Research Design	Berman: Chapters 2-3 Aldrich: Chapter 4	Assignment #1
3	Descriptive Statistics – Frequencies, Central Tendency, Dispersion	Berman: Chapter 6-7 Aldrich: Chapters 11, 8, 9	Assignment #2
4	Inferential Statistics	Berman: Chapter 7 (124-128); Intro to Section IV (163-165) See Canvas	Assignment #3
5	Hypothesis Testing, Estimating Population Proportions	Berman: Chapter 10, Box 7.2 (127) Aldrich: Chapter 12	Assignment #4
6	Testing Differences Between Groups – Difference of Means, t-tests	Berman: Chapter 12 Aldrich: Chapters 13,14	Assignment #5
Summer Break – No Class			
July 6	Paper Proposals Due		
7	Contingency Tables	Berman: Chapters 8, 10, 11 Aldrich: Chapter 25	Assignment #6
8	ANOVA	Berman: Chapter 13 Aldrich: Chapter 15	Assignment #7
9	Simple Regression / Correlations	Berman: Chapter 14 Aldrich: chapters 19 - 20	Assignment #8
10	Controlling for a 3 rd Variable	See Canvas	Assignment #9
11	Multiple Regression (OLS)	Berman: Chapter 15 Aldrich: Chapter 21	Assignment #10
12	Final Paper Presentations		
August 12	Final Research Papers Due by noon		

** This schedule is subject to change with proper advance notice to students*