

FYC6804: Applied Data Analysis in Family, Youth and Community Sciences

Section #804, 3 credit hours
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Monday 4th – 6th
MCCB 2102
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Office Hours: Monday before class & by
appointment

Course Description

This course introduces Family, Youth and Community Sciences graduate 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 analyses; 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 policies and programs.
2. Formulate a step-by-step approach for analyzing these research questions.
3. Select 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

- Required: 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.)
- Required: Aldrich, James O. (2018). *Using IBM® SPSS® Statistics: An Interactive Hands-On Approach*, 3rd Edition. Los Angeles, CA: SAGE. (or a similar SPSS guide, see Canvas)
- 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 are expected to complete a series of weekly homework assignments that test your knowledge of the skills learned in class. These 10 projects are 30 points each, and taken together, account for 30% of your final grade.
- **Final Research Paper:** You are 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 data (if you've already collected it) or secondary data. The final research project accounts for 70% of your final grade, including a preliminary research proposal (100 points, 10%), the research paper (500 points, 50%), and a final presentation (100 points, 10%). The proposal is due by **June 30**, the presentation is on **August 4**, and the paper is due by **August 6 at midnight**.

FYC6804: Applied Data Analysis in Family, Youth and Community Sciences

Evaluation of Grades

Assignment	Total Points	Percentage of Final Grade
Weekly Projects (10, 30 points each)	300	30%
Research Project Proposal	100	10%
Research Paper	500	50%
Research Project Presentation	100	10%
Total	1000	100%

Grading

A	90.0 to 100.0%	C	72.0 to 74.9%
A-	87.0 to 89.9%	C-	69.0 to 71.9%
B+	84.0 to 86.9%	D+	66.0 to 68.9%
B	81.0 to 83.9%	D	63.0 to 65.9%
B-	78.0 to 80.9%	D-	60.0 to 62.9%
C+	75.0 to 79.9%	E	Less than 60.0%

Readings & Attendance

You are responsible for completing all assigned readings before class, as this will facilitate your understanding of lectures, participation in discussion, and SPSS 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 graduate seminar – each week’s material builds on the previous week, and each week’s class time will include lecture, discussion, and work in SPSS. 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 ahead of time.

All materials will be provided asynchronously on Canvas (and the R drive), but lectures and hands-on computer lab work will be held at the scheduled class time, to explain the statistical background and methods presented in the lecture slides. Assignments will be provided and submitted via Canvas, and discussion boards for student interaction will be available there as well.

Grades and Grade Points

For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>.

Attendance and Make-Up Work

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>.

Accommodations for Students with Disabilities:

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center. See the “[Get Started With the DRC](#)” webpage on the Disability Resource Center site. 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.

FYC6804: Applied Data Analysis in Family, Youth and Community Sciences

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 education 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 deliver by an 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 presentation such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private 3 Revised: September 2024 conversations between students in the class or between a student and the faculty or guest 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.

Online Course Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online.

Students can complete evaluations in three ways:

1. The email they receive from GatorEvals,
2. Their Canvas course menu under GatorEvals, or
3. The central portal at <https://my-ufl.bluera.com>

Guidance on how to provide constructive feedback is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Academic Honesty

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

FYC6804: Applied Data Analysis in Family, Youth and Community Sciences

unauthorized aid in doing this assignment.” The Conduct Code specifies a number of behaviors that are in violation of this code and the possible sanctions. See the [UF Conduct Code website for more information](#). If you have any questions or concerns, please consult with the instructor or TAs in this class. It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: (New Link: <https://policy.ufl.edu/regulation/4-040/>)

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.

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general wellbeing 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.

Whole Gator App and website connects UF students with resources dedicated to supporting overall health and well-being. In addition to many of the resources below it also has strategies to practice self-care. <https://one.ufl.edu/whole-gator/topics>

Health and Wellness

- U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit [U Matter, We Care website](#) to refer or report a concern and a team member will reach out to the student in distress.
- Counseling and Wellness Center: [Visit the Counseling and Wellness Center website](#) or call 352-392-1575 for information on crisis services as well as non-crisis services.
- Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or [visit the Student Health Care Center website](#).
- University Police Department: [Visit UF Police Department website](#) or call 352-392-1111 (or 9-1-1 for emergencies).
- UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; [Visit the UF Health Emergency Room and Trauma Center website](#).
- GatorWell Health Promotion Services: For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit the [GatorWell website](#) or call 352-273-4450.

FYC6804: Applied Data Analysis in Family, Youth and Community Sciences

- [Hitchcock Field and Fork Pantry](#). Food and toiletries for those experiencing food insecurity.
- Student Success Initiative, <http://studentsuccess.ufl.edu>.

Academic Resources

- E-learning technical support: Contact the [UF Computing Help Desk](#) at 352-392-4357 or via e-mail at helpdesk@ufl.edu.
- [Career Connections Center](#): Reitz Union Suite 1300, 352-392- 1601. Career assistance and counseling services.
- [Library Support](#): Various ways to receive assistance with respect to using the libraries or finding resources. Call 866-281-6309 or email ask@ufl.libanswers.com for more information.
- [Teaching Center](#): 1317 Turlington Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.
- [Writing Studio](#): Daytime (9:30am-3:30pm): 2215 Turlington Hall, 352-846-1138 | Evening (5:00pm-7:00pm): 1545 W University Avenue (Library West, Rm. 339). Help brainstorming, formatting, and writing papers.
- Academic Complaints: Office of the Ombuds; [Visit the Complaint Portal webpage for more information](#).
- Enrollment Management Complaints (Registrar, Financial Aid, Admissions): [View the Student Complaint Procedure webpage for more information](#).
- [Dean of Students Office](#). 202 Peabody Hall, 392-1261. Among other services, the DSO assists students who are experiencing situations that compromise their ability to attend classes. This includes family emergencies and medical issues.

Student Complaints:

- Residential Course: <https://www.ombuds.ufl.edu/complaint-portal/>
- Online Course: <https://pfs.tnt.aa.ufl.edu/state-authorization-status/#student-complaint>

SPSS Statistics

This course will use SPSS Statistics 29 & 30 for data analysis, which are 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 6804 – 804)
 - 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

Research Paper

This project allows students to complete 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:

- Construct a significant research question related to a social, policy, or community issue;
- Choose an appropriate dataset which includes relevant 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 **June 30**. However, I recommend you begin this process as soon as possible for the best possible outcome.

Course Outline

The schedule below is subject to change with proper advance notice to students. Links to lecture slides and SPSS instructional slides, key ideas, handouts, and supplemental readings and materials are available on Canvas. Links to datasets used in instructional slides and lecture examples are available in the R drive.

All assignments are due, along with any supporting materials (like SPSS output), by the beginning of class, as stipulated in the Course Outline and in the Canvas Assignments section.

FYC6804: Applied Data Analysis in Family, Youth and Community Sciences

Course Outline: Summer C

Week	Topic	Readings	Assignments Due (W)
1 May 12	Course overview, Intro to SPSS, Intro to Research Design, Finding Data	- Berman: Chapter 1, 5 - Aldrich: Chapter 1-3	
2 May 19	Measurement & Research Design	- Berman: Chapters 2-3 - Aldrich: Chapter 4 "Food Insecurity and Hunger in the United States" (National Research Council, 2006), Chapter 3 "Concepts and Definitions"	Assignment #1
3 May 26* (shift because of holiday)	Descriptive Statistics – Frequencies, Central Tendency, Dispersion	- Berman: Chapter 6-7 - Aldrich: Chapters 11, 8, 9 - Jones, Jennifer. 2017. "Scaffolding self-regulated learning through student-generated quizzes." <i>Active Learning in Higher Education</i>, 1-12. DOI: 10.1177/1469787417735610.	Assignment #2
4 June 2	Inferential Statistics	- Berman & Wang: "Sampling," pages 88-94; Pages 124-127 (the normal curve); Introduction to Section IV, pages 165-167 - Meier, Brundy, & Bohte: Chapter 11 - Chilton, Adam S. and Mila Versteeg. 2016. "International law, constitutional law, and public support for torture." <i>Research & Politics</i>, 3(1):1-9. DOI: 10.1177/2053168016636413	Assignment #3
5 June 9	Hypothesis Testing, Estimating Population Proportions	- Berman: Chapter 10, "One Sample T-Test" (pages 214-214) - Aldrich: Chapter 12 - Gail M. Sullivan & Richard Feinn. 2012. "Using Effect Size -- or Why the P Value Is Not Enough." <i>Journal of Graduate Medical Education</i>.	Assignment #4
6 June 16	Testing Differences Between Groups – Difference of Means, t-tests	- Berman: Chapter 12 - Aldrich: Chapters 13,14 - Burnett, Craig M. 2016. "Exploring the difference in participants' factual knowledge between online and in-person survey modes." <i>Research & Politics</i>, 3(2):1-7. DOI: 10.1177/2053168016654326.	Assignment #5
June 23	Summer Break – No Class		

FYC6804: Applied Data Analysis in Family, Youth and Community Sciences

7 June 30	Contingency Tables	• Berman: Chapters 8, 11 • Aldrich: Chapter 25 • Kiesner, Jeff and Erica Fassetta. 2009. "Old friends and new friends: Their presence at substance-use initiation." <i>International Journal of Behavioral Development</i>, 33(4): 299-302.	Assignment #6
Research Project Proposal Due June 30			
8 July 7	ANOVA	• Berman: Chapter 13 • Aldrich: Chapter 15 • Phares, Vicky, Sherece Fields, M. Monica Watkins-Clay, Dimitra Kamboukos & Sena Han. (2005) "Race/Ethnicity and Self-Esteem in Families of Adolescents," <i>Child & Family Behavior Therapy</i>, 27:3, 13-26, DOI: 10.1300/J019v27n03_02.	Assignment #7
9 July 14	Simple Regression / Correlations	• Berman: Chapter 14 • Aldrich: chapters 19 – 20 • Payne Purvis, Caroline; Barnett, Rosemary V.; and Forthun, Larry. (2014) "Parental Involvement during Adolescence and Contraceptive Use in College," <i>Journal of Adolescent and Family Health: Vol. 6: Iss. 2, Article 3.</i> • Barnett, R. V., Payne-Purvis, C., & Culen, G. R. (2015). "Perceptions of Community and Risk Behavior Exposure for Youth in At-Risk Environments." <i>National Youth-At-Risk Journal</i>, 1(1). doi.org: 10.20429/nyarj.2015.010105.	Assignment #8
10 July 21	Controlling for a 3 rd Variable	• Meier, Brundy, & Bohte: Chapter 17 • Mitchell, Kristina M. W. and Jonathan Martin. 2018. "Gender Bias in Student Evaluations." <i>PS: Political Science & Politics</i>. doi:10.1017/S1049096518000001X.	Assignment #9
11 July 28	Multiple Regression (OLS)	• Berman: Chapter 15 • Aldrich: Chapter 21 • Mutz, D. (2016). "Harry Potter and the Deathly Donald." <i>PS: Political Science & Politics</i>, 49(4), 722-729. doi:10.1017/S1049096516001633	Assignment #10
12 August 4	Final Presentations on 8/4 Final Paper due by Midnight on 8/6		