

University of Florida
College of Public Health & Health Professions Syllabus
HSA 7708: Health Services Research Methods II
 SPRING 2024 (3 Credits)
 Delivery Format: On Campus
 UF e-Learning: <http://elearning.ufl.edu/>

Instructor Name: Ara Jo, PhD
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 Email Address: ara13j@phhp.ufl.edu
 Office Hours: By Appointment

Course schedule: Every Wednesday 1:55pm-4:55pm
Classroom: HPNP G-108

Preferred Communication: Direct UFL email.

Email Policy: Response within 24 hours to emails received on weekdays (M-F) and 48 hours to emails received over the weekend.

Prerequisites

PHC6052 and HSA6930.

PURPOSE AND OUTCOME

Course Overview

This course is designed to review and understand health services research methods and focus on quantitative research methodologies for health services researchers.

Course Objectives and/or Goals

Upon completion of the course, students are expected to be able to,

1. Understand diverse health services research methodologies.
2. Apply optimal methods to the health services research topic and context.

Instructional Methods

Class notes and readings are primary resources. Required readings will be sent via email. SAS or STATA statistical software (any version) are required to conduct quantitative method.

Competencies

1. Apply in-depth disciplinary knowledge and skills relevant to health services research.
2. Select appropriate interventional (experimental and quasi-experimental or observational (qualitative, quantitative or mixed methods) study designs and corresponding methods to address specific health service research questions.
3. Use appropriate analytical methods to clarify associations between variables and to delineate causal inferences.

4. Effectively communicate the findings and implications of health services research through multiple modalities to technical and lay audiences.

DESCRIPTION OF COURSE CONTENT

Course Schedule

Week	Date	Topic(s)
1	1/10	Introduction and overview of health services research
2	1/17	Health Services Research Methods: Regression analysis
3	1/24	Properties of OLS Estimators Due: Research Question, 1/24 (Wed), 11:59pm
4	1/31	Violation of OLS Assumptions I: Non-normal Errors/Functional Form Due: Outcome analysis I, 2/2 (Fri), 11:59pm
5	2/7	Violation of OLS Assumptions II: Heteroskedasticity and Autocorrelation Due: Outcome analysis II, 2/9 (Fri), 11:59pm
6	2/14	Violation of OLS Assumptions III: Missing data, Measurement error and Stochastic regression Due: Model Diagram, 2/16 (Fri), 11:59pm
7	2/21	Discrete Dependent Variables I: Binary (Logit, Probit, Grouped Logit)/ Polychotomous (Ordered Logit, Ordered Probit, Multinomial logit, conditional logit, nested logit, multinomial probit) Dependent Variables
8	2/28	No Class due to Case Competition
9	3/6	No Class (SPRING BREAK)
10	3/13	Discrete Dependent Variables II: Count Data Models (Poisson regression, Negative Binomial Regression) Due: Outcome analysis III, 3/15 (Fri), 11:59pm

Week	Date	Topic(s)
11	3/20	Models with Censored Data I: Tobit and Two-Part Models
12	3/27	Models with Censored Data II: Propensity Scores; Difference-in-Difference Models; Interrupted Time-Series Due: Outcome analysis IV, 3/29 (Fri), 11:59pm
13	4/3	Other Modeling Tools I: Simultaneous Equations
14	4/10	Other Modeling Tools II: Hierarchical Linear Models Due: Replication study, 4/12 (Fri), 11:59pm
15	4/17	Clinical Trials Due: Research Paper, 4/18 (Thu), 11:59pm
16	4/24	Presentations

Course Materials

- **[Required]** For **SAS** users. Applied Econometrics using the SAS System. Vivek Ajmani. Wiley. 2011.
- **[Required]** For **STATA** users. Health Econometrics Using STATA. Partha Deb, Edward C. Norton & Willard G. Manning. Stata Press. 2017. ISBN: 978-1-59718-228-7
- **[Recommended]** Maddala, G. Limited Dependent & Qualitative Variables in Econometrics. Cambridge University Press. 1983
- Additional readings and lecture notes will be posted on Canvas.

Announcements: Class announcements will be posted on Canvas.

For **technical support for the course eLearning site, activities, and assessments**, please contact: the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- <https://elearning.ufl.edu/help.shtml>

ACADEMIC REQUIREMENTS AND GRADING

Assignments: Late submission will discount 1 point per every 24 hours. Extra page will discount 1 point per page.

1. **Outcome analysis** using SAS or STATA (5 points *4=20pts)
 - a. This assignment is designed to measure and evaluate a variety of health services outcomes for appropriate modeling. You are expected to respond to questions and give rationale of

your response using SAS or STATA based on quantitative modeling. Medical Expenditure and Panel Survey (MEPS) data is required to use. All questions are posted on Assignment tab on Canvas. Deadlines are listed on the course schedule.

- b. Rubric
 - a. Elaborate your analysis and give rationale (3 pts): Methods or answers are clearly described and appropriate for the research/topic. Rationale is clearly addressed.
 - b. Analyze the data in an appropriate way (2 pts)
 - c. Submit the document to Canvas Assignment tab.

2. **A Replication Study (30 pts): Due 4/12 (Thu), 5pm**

This assignment is designed to replicate existing study using health services methodologies. It allows students to understand the rationale of the methodology and conduct the research independently. Select a study using one of health services research methods that is discussed in this class with national database. For instance, a basic logistic regression model is not allowed. The study should be approved by an instructor before starting the replication (**Due: 3/13 (Wed) before class time**). Following by method section, generate reliable findings. The final paper includes original findings and replicated findings. In addition, write strengths and weakness of the methodology. Lastly, suggest alternative methods to improve the study. The paper should be maximum 3 pages excluding tables, figures and references. The format should follow the AMA style.

Rubric

- i. Replicated results (10 pts): Replicate methods successfully and interpret results appropriately. . Have to present all tables and figures that are presented in the original study. Screenshots of outputs from the program are not acceptable.
- ii. Strengths and weakness (10 pts): Strengths and weaknesses are addressed clearly. It has to be critiques with respect to methodology. Sampling frame, dataset feature or anything regarding the sampling and variable choices are not acceptable.
- iii. Suggest alternative methods (10 pts): Alternative method is clearly described and appropriate for the research/topic.
- iv. **Submit the document to Canvas Assignment "A Replication Study" tab.**

3. **Research Manuscript (35 pts):**

- a. **Research question: 1/24 (Wed), 11:59pm**
- b. **Model diagram: 2/16 (Fri), 11:59pm**
- c. **Research paper: 4/18 (Thu), 11:59pm**
- d. **Presentation: 4/24 (Wed), in class time.**

Students will write a research manuscript based upon their own research interest. It should consist of three sections, 1) introduction, 2) methods and 3) results. The paper should be written in AMA style. The paper should be maximum 7 pages excluding tables, figures and references. The presentation will take place on 4/24 in class time. Powerpoint is required. It is maximum 20 minutes. Q&A will be given after presentation for 15 minutes.

Rubric

- e. Introduction (5pts): background should be concise and clearly. Research question and hypothesis should be clearly described.
- f. Methods (10 pts): describe methods including study design, sampling design, sampling flow and statistical methods clearly. Also need justification of methodology.
- g. Results (10 pts): present descriptive and advanced analysis findings and interpret findings clearly.
- h. Presentation and defense (10 pts): present the research proposal clearly with logical flow of information and respond to peers' questions professionally.
- i. It is a cumulative. However, the paper and the presentation will be assessed only. Research question submission and model diagram will be used for feedback.

- j. **Submit the proposal only to Canvas Assignment "Research Proposal" tab.**

4. Participation and methods critique (15 pts)

Students are required to present the assigned article critique at least two times throughout the semester and participate to class actively. Methods critiques should include the following points.

- Study objectives and hypotheses
- Study design
- Data descriptions
- Study population
- Variable operationalization
- Statistical analyses
- Results (interpretations only)
- Weaknesses of the methods (this should be your own thoughts.)

Grading

Final grades will reflect your performance in these areas:

Requirement		Points
Assignments	Outcome Analysis *4	20
	A Replication Study: 4/12 (Fri), 11:59pm <ul style="list-style-type: none"> • Study approval due: 3/13 (Wed) before the class. 	30
	Research Manuscript <ul style="list-style-type: none"> • Research question: 1/24 (Wed), 11:59pm • Model diagram: 2/16 (Fri), 11:59pm • Paper: 4/18 (Thu), 11:59pm • Presentation: 4/24 (Wed), in class time. 	35
Participation and Methods Critique		15
Total points		100

Point system used (i.e., how do course points translate into letter grades):

Percentage Earned	Letter Grade
93-100	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
63-66	D
60-62	D-
Below 60	E

- There will be no rounding up for grade increments, for example a 92.99 is an A-. Please be aware that a C- is not an acceptable grade for graduate students. The GPA for graduate students must be 3.0. in all 5000 level courses and above to graduate. A grade of C counts toward a graduate degree

only if a sufficient number of credits in courses numbered 5000 or higher have been earned with a B+ or higher.

Letter Grade	Grade Points
A	4.0
A-	3.67
B+	3.33
B	3.0
B-	2.67
C+	2.33
C	2.0
C-	1.67
D+	1.33
D	1.0
D-	0.67
E	0.0
WF	0.0
I	0.0
NG	0.0
S-U	0.0

More information on UF grading policy may be found at:

<http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#grades>

Exam Policy

Policy Related to Make up Exams or Other Work

Please note: Any requests for make-ups due to technical issues MUST be accompanied by the UF Computing help desk (<http://helpdesk.ufl.edu/>) correspondence. You MUST e-mail a instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Only in extreme circumstances will the instructor accept late assignments. If you anticipate turning an assignment in late, please discuss with the instructor or teaching assistant beforehand. It is your responsibility to check that the correct assignment has been submitted to Canvas on time. Always review your submission after turning it in. The penalty for late submission is a reduction by 1 point per day of the grade of each assignment.

Policy Related to Required Class Attendance

Excused absences must be consistent with university policies in the Graduate Catalog (<http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance>) and require appropriate documentation. Additional information can be found here: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Policy Related to Guests Attending Class:

Only registered students are permitted to attend class. However, we recognize that students who are caretakers may face occasional unexpected challenges creating attendance barriers. Therefore, by exception, a department chair or his or her designee (e.g., instructors) may grant a student permission to bring a guest(s) for a total of two class sessions per semester. This is two sessions total across all courses. No further extensions will be granted. Please note that guests are not permitted to attend either cadaver or wet labs. Students are responsible for course material regardless of attendance. For additional information, please review the Classroom Guests of Students policy in its entirety. Link to full policy: <http://facstaff.phpup.ufl.edu/services/resourceguide/getstarted.htm>

Professionalism Course Requirement language

Since “Professionalism” is a hallmark of patient and population care, and central to the mission of the College of Public Health and Health Professions, it will be assessed in this course. Student demeanor and observable behavior are central components to assessing one’s professionalism and will therefore need to be observed and occasionally recorded within this class. To facilitate a proper evaluation of professionalism in online sessions, Zoom synchronous sessions may be audio-visually recorded and students will be asked to keep their cameras on during class. Failure to turn on the camera could result in the student not receiving a professionalism score.

STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

Expectations Regarding Course Behavior

You are expected to maintain a civil tone and respect the opinions of other persons. While commenting on others’ posts is encouraged, aggressive or patronizing tone and language are unacceptable and may result in the loss of your posting and discussion privileges.

Communication Guideline

Preferred communication is via direct UFL email. Response within 24 hours to emails received on weekdays (M-F) and 48 hours to emails received over the weekend. Response via Canvas Message may be delayed.

Academic Integrity

Students are expected to act in accordance with the University of Florida policy on academic integrity. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge:

“We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.”

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit 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.”

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 additional information regarding Academic Integrity, please see Student Conduct and Honor Code or the Graduate Student Website for additional details:

<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>

<http://gradschool.ufl.edu/students/introduction.html>

Please remember cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

Online Faculty Course Evaluation Process

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. 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 <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

SUPPORT SERVICES

Accommodations for Students with Disabilities

If you require classroom accommodation because of a disability, it is strongly recommended you register with the Dean of Students Office <http://www.dso.ufl.edu> within the first week of class or as soon as you believe you might be eligible for accommodations. The Dean of Students Office will provide documentation of accommodations to you, which you must then give to me as the instructor of the course to receive accommodations. Please do this as soon as possible after you receive the letter. Students with disabilities should follow this procedure as early as possible in the semester. The College is committed to providing reasonable accommodations to assist students in their coursework.

Counseling and Student Health

Students sometimes experience stress from academic expectations and/or personal and interpersonal issues that may interfere with their academic performance. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.

The Counseling and Wellness Center 352-392-1575 offers a variety of support services such as psychological assessment and intervention and assistance for math and test anxiety. Visit their web site for more information: <http://www.counseling.ufl.edu>. On line and in person assistance is available.

You Matter We Care website: <http://www.umatter.ufl.edu/>. If you are feeling overwhelmed or stressed, you can reach out for help through the You Matter We Care website, which is staffed by Dean of Students and Counseling Center personnel.

The Student Health Care Center at Shands is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at Shands offers a variety of clinical services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: <https://shcc.ufl.edu/>

Crisis intervention is always available 24/7 from:

Alachua County Crisis Center:

(352) 264-6789

<http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx>

Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.

Inclusive Learning Environment

Public health and health professions are based on the belief in human dignity and on respect for the individual. As we share our personal beliefs inside or outside of the classroom, it is always with the understanding that we value and respect diversity of background, experience, and opinion, where every individual feels valued. We believe in, and promote, openness and tolerance of differences in ethnicity and culture, and we respect differing personal, spiritual, religious and political values. We further believe that celebrating such diversity enriches the quality of the educational experiences we provide our students and enhances our own personal and professional relationships. We embrace The University of Florida's Non-Discrimination Policy, which reads, "The University shall actively promote equal opportunity policies and practices conforming to laws against discrimination. The University is committed to non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, gender identity and expression, marital status, national origin, political opinions or affiliations, genetic information and veteran status as protected under the Vietnam Era Veterans' Readjustment Assistance Act." If you have questions or concerns about your rights and responsibilities for inclusive learning environment, please see your instructor or refer to

the Office of Multicultural & Diversity Affairs website: www.multicultural.ufl.edu
