

**University of Florida**  
**College of Public Health & Health Professions Syllabus**  
**HSA 7708: Health Services Research Methods II**

SPRING 2022 (3 Credits)

Delivery Format: On Campus

UF e-Learning: <http://elearning.ufl.edu/>

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Office Hours: By Appointment

**Course schedule: Every Wednesday 1:55pm-4:55pm**

**Classroom: HPNP 4105**

**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.

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### **Prerequisites**

None.

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### **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)	Text Chapter
1	1/12	Introduction and overview of health services research	
2	1/19	Health Services Research Methods: Regression analysis	Wooldridge Ch. 1
3	1/26	Properties of OLS Estimators <b>Due: Research Question, 1/27(Thu), 5pm</b>	Wooldridge Ch. 2
4	2/2	Violation of OLS Assumptions I: Non-normal Errors/Functional Form	Wooldridge Ch. 3, 6, 9
5	2/9	Violation of OLS Assumptions II: Heteroskedasticity and Autocorrelation	Wooldridge Ch. 8, 12
6	2/16	Violation of OLS Assumptions III: Missing data, Measurement error and Stochastic regression <b>Due: Model Diagram, 2/17 (Thu), 5pm</b>	Wooldridge Ch. 9
7	2/23	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	3/2	Discrete Dependent Variables II: Count Data Models (Poisson regression, Negative Binomial Regression) <b>Due: Method Consulting, 3/3 (Thu), 5pm</b>	Maddala Ch.2.1, 2.2, 2.5, 2.8-9 Wooldridge Ch. 7, Ch. 17
9	3/9	Models with Censored Data I: Tobit and Two-Part Models	Maddala Ch. 3.1-6
10	3/16	Models with Censored Data II: Propensity Scores	Maddala Ch. 6.1-7

Week	Date	Topic(s)	Text Chapter
11	3/23	<b>Models with Censored Data III: Difference-in-Difference Models</b>	-
12	3/30	<b>Other Modeling Tools I: Simultaneous Equations</b>	Maddala Ch. 7 Wooldridge Ch. 16
13	4/6	<b>Other Modeling Tools II: Hierarchical Linear Models</b> <b>Due: Replication study, 4/7 (Thu), 5pm</b>	-
14	4/13	<b>Clinical Trials</b> <b>Due: Research Proposal, 4/14 (Thu), 5pm</b>	-
15	4/20	<b>Presentation of research proposal</b>	-

### Course Materials

- **[Required]** Wooldridge, J. *Econometric Analysis of Cross Section and Panel Data*, 2nd edition. The MIT Press.
- **[Recommended]** Maddala, G. *Limited Dependent & Qualitative Variables in Econometrics*. Cambridge University Press. 1983
- Additional readings used for lectures will be sent via email
- Lecture Slides used for lectures will be sent via email

**Announcements:** Class announcements will be sent via email.

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 each day. Extra page will discount 1 point per page.**

1. **Method Consulting Project (20pts): Due March 3 (Thu), 5pm**

As a health services researcher, you are asked to consult a research team about methodology. Given some scenarios, you respond to questions and suggest optimal methodology. You should give rationale of your suggestion based on evidence and provide strengths and weaknesses of your suggestion. You can also make your own assumption to find the optimal method. The format should

follow the AMA style. The scenario will be given by Feb 23 (Wed).

Rubric

- a. Suggest methods with rationale (15pts): Methods or answers are clearly described and appropriate for the research/topic. Rationale is clearly addressed.
- b. Address strengths and weakness (5 pts): Strengths and weaknesses are addressed clearly.
- c. **Submit the document to Canvas Assignment "Method Consulting" tab.**

2. **A Replication Study (30 pts): Due 4/7 (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 with national database. The study should be approved by an instructor before starting the replication (**Due: 3/30 (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: 1/27 (Thu), 5pm**
- b. **Model diagram: 2/17 (Thu), 5pm**
- c. **Proposal: 4/14 (Thu), 5pm**
- d. **Presentation: 4/20 (Wed), in the 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 4/20 in the 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 proposal 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.**

**Participation (10 pts)**

Students are required to participate to the study actively. Must respond to at least two questions given by the instructor in every class.

**Attendance (5 pts)**

Students are required to attend all classes. See attendance policy.

**Grading**

Final grades will reflect your performance in these areas:

Requirement		Points
Assignments	Method Consulting: 3/3 (Thu), 5pm	20
	A Replication Study: 4/7 (Thu), 5pm <ul style="list-style-type: none"> <li>Study approval due: 3/30 (Wed) before the class.</li> </ul>	30
	Research Manuscript: 4/14 (Thu), 5pm <ul style="list-style-type: none"> <li>Research question: 1/27 (Thu), 5pm</li> <li>Model diagram: 2/17 (Thu), 5pm</li> <li>Proposal: 4/14 (Thu), 5pm</li> <li>Presentation: 4/20 (Wed), in the class time.</li> </ul>	35
Participation		10
Attendance		5
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.phhp.ufl.edu/services/resourceguide/getstarted.htm>

**Face-to-Face Presentation Guideline:** We will have face-to-face instructional sessions to accomplish the student learning objectives of this course. In response to COVID-19, the following policies and requirements are in place to maintain your learning environment and to enhance the safety of our in-classroom interactions.

- **You are required to wear approved face coverings at all times during class and within buildings.** Following and enforcing these policies and requirements are all of our responsibility. Failure to do so will lead to a report to the Office of Student Conduct and Conflict Resolution.
- This course has been assigned a physical classroom with enough capacity to maintain physical distancing (6 feet between individuals) requirements. Please utilize designated seats and maintain appropriate spacing between students. Please do not move desks or stations.
- Sanitizing supplies are available in the classroom if you wish to wipe down your desks prior to sitting down and at the end of the class.
- Follow your instructor's guidance on how to enter and exit the classroom. Practice physical distancing to the extent possible when entering and exiting the classroom.
- If you are experiencing COVID-19 symptoms (<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>), please use the UF Health screening system (<https://coronavirus.ufhealth.org/screen-test-protect/covid-19-exposure-and-symptoms-who-do-i-call-if/>) and follow the instructions on whether you are able to attend class.
  - Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work (<https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>).

### 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.

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## 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.

### Netiquette Guideline

Please read the 'Netiquette Guideline' on Announcement carefully.

### 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/>.

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## **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](http://www.multicultural.ufl.edu)

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