Course Number: Credit Hours: Prerequisites:	ECON 550-001 3.0 ECON 400, 410, 470; a grade of C or better in ECON 400 and 410 is required		Day/Time: Term: Bldg/Room:	TR 3:30 – 4:45 pm Fall 2023 007 Gardner Hall	
Professor: Office: Email: donna_gill	Donna Gilleskie 06B Gardner Hall eskie@unc.edu		Office Hours:	T: 2:00 – 3:00 pm W: 2:00 – 3:00 pm (or by appt)	
Grading	Paper: Prospectus	5 %	due Sep 19		
Components:	Paper: Summary stats	5 %	due Oct 03		
·	Paper: Prelim estimates	5 %	due Oct 17		
	Paper: Rough draft	5 %	due Nov 02		
	Presentation	20 %	during Nov 09	9-16	
	Reviews (2)	10 %	due Nov 21		
	Course Paper	25 %	due Dec 05		
	Final Exam	20 %	Dec 09, 4:00 pm – 7:00 pm		
	Participation	5 %	Engagement		
Tauthealu			(attendance, cor	nments, inquiries, attention)	
Textbook:	none	dfa ta ha	provided by in	ctructor)	
-	Readings: journal articles (links or pdfs to be provided by instructor)				
Canvas Site: Schedule:	https://uncch.instructure.com/courses/3000				
scheuule.	schedule of topics, assignments, and due dates by class day is provided on Canvas (ECON550-schedule-f23.xls)				
	is provided on Canvas (EC	-010550-5	schedule-123.XI	>)	

Course Description

This course exposes students to empirical investigation of common questions in research, policymaking, and consulting in the field of health economics. We discuss treatment effects, marginal effects, and prediction related to medical care expenditures, medical care utilization, and health production. We examine the commonly-used econometric models in the field of health economics and discuss approaches to choosing the most appropriate model. The importance of the research and policy questions in health and health behaviors require that economists understand the empirical models – and correctly interpret the results of these models – on which conclusions may be based. We use real-world survey data to implement the empirical models and study applications of the models in current academic research publications. Students gain substantial data management skills and improve their programming skills in Stata and/or R. The class format includes traditional lecture, in-class programming/execution, discussion of research papers, and some group work. Students are required to complete an empirical research project on a health-related topic of their choosing that demonstrates knowledge and appropriate use of the empirical models we study in this course.

This course meets the **Research and Discovery** objective of the new <u>IDEAs in action</u> curriculum by answering the following questions:

- 1. How do I establish my point of view, take intellectual risks, and begin producing original scholarship or creative works?
- 2. How do I narrow my topic, critique current scholarship, and gather evidence in systematic and responsible ways?
- 3. How do I evaluate my findings and communicate my conclusions?

Learning Outcomes

The learning objective is as follows: Student immerse themselves in a research project and experience the reflection and revision involved in producing and disseminating original scholarship or creative works.

- 1. Frame a topic, develop an original research question, and establish a hypothesis.
- 2. Obtain a procedural understanding of how conclusions are reached in the economics field and gather appropriate evidence using data.
- 3. Evaluate the quality of the arguments and/or evidence in support of the findings, which should be based on an empirical model grounded in economic theory.
- 4. Communicate findings in a clear and compelling ways, using a positive (rather than normative) argument.
- 5. Critique and identify the limits of the conclusions of the project and generate ideas for future work.

Statistical Software Options:

- STATA: Students currently enrolled at degree-granting institutions may purchase a single-user Stata license at the prices listed <u>here</u>. Click on the 6-month tab to see a price of \$48 for Stata/BE, which is sufficient for this course.
- R & RStudio: available as open source (meaning free) and you can find it <u>here</u>.
- UNC's Virtual Computing Lab (VCL) allows you access to STATA at no cost. However, it will be a little "clunkier" as you will need to learn how to work (submit and retrieve work) on that platform.

While R versions of most STATA code files used in this course are available, the instructor does not know R well at all. Hence, she can provide lots of guidance if you use STATA, some guidance if you use VCL, and minimal guidance if you use R.

Other resources for learning STATA:

https://www.stata.com/learn https://stats.idre.ucla.edu/stata/modules/ Data Management <u>Playlist</u> by Chuck Huber, Senior Statistician at Stata

Note: It is the student's responsibility to secure access to the software.

Practice Problems (0%)

Empirical exercises are available to help students gain experience dealing with data issues and estimation methods. If you answer all practice problems using the data you have selected for the research project in this course, you will be well on your way to having most of the components you'll need for the final course paper.

Prospectus for research project (5%)

The prospectus is an extended plan (2-3 pages) for your research paper. It states your research question, briefly highlights why your research question is relevant/important to study, cites previous studies on a similar topic, indicates data source, presents a simple model with the error structure, lists variables, and discusses potential issues with the validity of your model. In the process of working on your research project, you are encouraged to meet with the instructor in her office to discuss your research question, proposed data source and research methods, and empirical results.

Students are encouraged to pair up with a classmate on the research project. Throughout the course, opinions from each member of the pair will be solicited.

Periodic check-ins (15%)

- Summary statistics (5%): describe your data source, define the sample, provide appropriate summary statistics of relevant variables.
- Preliminary estimation (5%): describe empirical model grounded in economic theory, provide estimation results from one or more models, interpret results.
- Rough draft (5%): turn in progress to date in the format of a journal article in the economics profession, including title page, abstract, introduction, literature review, description of data, theoretical motivation, empirical model, results, discussion.

Presentation and peer review (20% and 10%)

Students are required to present their progress on their research paper for 10 minutes followed by a five-minute Q&A session. The date of each presentation will be assigned randomly in the last month of the semester. Hence, some students will be presenting a preliminary version of their paper (or plan), while others will be presenting a nearly complete version depending on the date. For each presentation, two students will be assigned as discussants (or referees). The presenter must send the latest draft of the paper and presentation slides to the instructor and the discussants at least 2 days prior to presentation. The discussants will prepare 1-3 pages of written comments (a "referee report") aimed at improving the paper and will lead the Q&A session. Separate/ independent grades will be given for the presentation and for the two referee reports.

Research paper (25%)

The final paper is about 15 pages long. The topic must be health related and, given the econometric models we study in this course, should have a dependent variable that is a continuous or count variable. Using data from a recent year of the suggested micro-level longitudinal datasets or a data set of your choosing (approved by the instructor), the paper should detail estimation of empirical models that address the question at hand and demonstrate research methods learned during the course. The paper cannot be used for credit in another class. The paper must be submitted by the due date. Papers handed in after the due date but before the final examination will be marked down by one letter grade. Papers handed in after the final examination will receive no credit.

Final exam (20%)

The final exam asks questions that test your understanding of the application of economic theory to empirical research and of the appropriateness of different empirical models. The basis of these questions will come from class notes/classwork, presentations, the practice problems, your own research, the research presented by your classmates, and the readings.

Participation (5%)

Participation in this class is demonstrated through attendance, attention, making substantive contribution to discussions, and completing in-class assignments. You are expected to be on time, have completed the assigned readings, and actively engage and participate in the classroom activities.

Grading Scale

A:	90 - 100	A (-): Mastery of course content at the highest level of attainment
В:	80 - 89	B (+/-): Strong performance indicating a high level of attainment
C:	70 – 79	C (+/-): An acceptable and adequate level of attainment
D:	60 - 69	D (+): A marginal performance; a minimal passing level of attainment
F:	<60	F: An unacceptable performance; almost no understanding of content

(Course grades within each range are assigned with plusses and minuses defined by naturally-occuring final course percentage breaks based on student performance within range.)

Course topics schedule/timetable

An outline of topics, with dates and outside reading assignments, accompanies this syllabus. Although this outline gives a chronology of topics, some deviations from the proposed order may be necessary as the class progresses. The professor reserves the right to make changes to the syllabus, including due dates. These changes will be announced as early as possible. Students are responsible for attending classes and learning of any changes in the schedule. At the end of each class, students will be reminded of which readings will be beneficial for the following class period.

Policies and Expectations

Please check Canvas regularly. The prospectus, check-ins, presentation slides, review reports, and final paper should be submitted through Canvas. The system will accept submissions until 9:00 pm on the due date. If you prefer, you may submit a hard copy of your work in class on the due date.

Engagement in the course (demonstrated through attendance, attention, comments, questions, active listening, and respect toward the teacher and fellow students...in a word, participation) is expected and a part of the learning experience. While this instructor understands that students may not be able to attend every class, students must likewise understand that an absence from class may result in missed information that would be difficult to "re-communicate" in a different format. The instructor will not (and cannot) replicate our 75-minute class in office hours. It will be your responsibility to obtain the missed information (by reading the provided notes on your own, by seeking help from the instructor if you don't understand something, and/or by discussing the content with your classmates). All due dates are announced in advance. Hence, you have plenty of time to work on assignments well in advance of the due date, limiting the need for an extension due to an unexpected absence. [Independent of an absence, please feel comfortable asking questions in class or visiting office hours.]

University Attendance Policy: As stated in the University's <u>Class Attendance</u> <u>Policy</u>, no right or privilege exists that permits a student to be absent from any class meetings, except for these University Approved Absences:

- Authorized University activities: <u>University Approved Absence Office</u> (UAAO) website provides information and <u>FAQs for students</u> and <u>FAQs for</u> <u>faculty</u> related to University Approved Absences
- Disability/religious observance/pregnancy, as required by law and approved by <u>Accessibility Resources and Service</u> and/or the <u>Equal</u> <u>Opportunity and Compliance Office</u> (EOC)
- 3. Significant health condition and/or personal/family emergency as approved by the <u>Office of the Dean of Students</u>, <u>Gender Violence Service</u> <u>Coordinators</u>, and/or the <u>Equal Opportunity and Compliance Office</u> (EOC).

Students may not use tablets, phones, or similar devices during the lecture. Laptops will be used (when instructed to do so) to conduct classroom empirical work... and empirical work only. The motivation for this rule: First, your contemporaries have demonstrated that they will engage in non-course activities on these devices during class. Second, such activity disrupts your classmates and disruptive behavior violates section II.C.1.k of the Honor Code. Third, it interferes with your learning. Numerous <u>studies</u> show that "disconnected" students perform significantly better than their "connected" peers.

You are expected to contribute your fair share to group projects. Ratings of individual participation from each group member will be solicited.

Honor Code Statement

All students are expected to follow the guidelines of the UNC honor code. Students are expected to refrain from "lying, cheating, or stealing" in the academic context. The Honor Code of the University is in effect at all times, and the submission of work signifies understanding and acceptance of those requirements. Plagiarism will not be tolerated. Please consult with the instructor or <u>studentconduct.unc.edu</u> if you have any questions about the Honor Code.

Acceptable Use Policy

By attending the University of North Carolina at Chapel Hill, you agree to abide by the University of North Carolina at Chapel Hill policies related to the acceptable use of IT systems and services. The Acceptable Use Policy (AUP) sets the expectation that you will use the University's technology resources responsibly, consistent with the University's mission. In the context of a class, it's quite likely you will participate in online activities that could include personal information about you or your peers, and the AUP addresses your obligations to protect the privacy of class participants. In addition, the AUP addresses matters of others' intellectual property, including copyright. These are only a couple of typical examples, so you should consult the full Information Technology Acceptable Use Policy, which covers topics related to using digital resources, such as privacy, confidentiality, and intellectual property.

Additionally, consult the <u>Safe Computing at UNC</u> website for information about data security policies, updates, and tips on keeping your identity, information, and devices safe.

<u>Resources</u>

Accessibility Resources and Service

<u>Accessibility Resources and Service</u> (ARS – <u>ars@unc.edu</u>) receives requests for accommodations, and through the Student and Applicant Accommodations Policy determines eligibility and identifies reasonable accommodations for students with disabilities and/or chronic medical conditions to mitigate or remove the barriers experienced in accessing University courses, programs and activities. ARS also offers its Testing Center resources to students and instructors to facilitate the implementation of testing accommodations. Faculty and instructors with any concerns or questions about accommodations and/or their implementation, are invited to <u>reach</u> <u>out to ARS</u> to discuss.

Counseling and Psychological Services

UNC-Chapel Hill is strongly committed to addressing the mental health needs of a diverse student body. The <u>Heels Care Network</u> website is a place to access the many mental health resources at Carolina. CAPS is the primary mental health provider for students, offering timely access to consultation and connection to clinically appropriate services. Go to their website <u>https://caps.unc.edu/</u> or visit their facilities on the third floor of the Campus Health building for an initial evaluation to learn more. Students can also call CAPS 24/7 at 919-966-3658 for immediate assistance.

Title IX and Related Resources

Any student who is impacted by discrimination, harassment, interpersonal (relationship) violence, sexual violence, sexual exploitation, or stalking is encouraged to seek resources on campus or in the community. Reports can be made online to the EOC at https://eoc.unc.edu/report-an-incident/ or by contacting the University's Title IX Coordinator (Elizabeth Hall, titleixcoordinator@unc.edu) or the Report and Response Coordinators in the Equal Opportunity and Compliance Office (report-andresponse@unc.edu). Confidential resources include Counseling and Psychological Services and the Gender Violence Services Coordinators (gysc@unc.edu). Additional resources are available at safe.unc.edu.

Policy on Non-Discrimination

The University is committed to providing an inclusive and welcoming environment for all members of our community and to ensuring that educational and employment decisions are based on individuals' abilities and qualifications. Consistent with this principle and applicable laws, the University's <u>Policy Statement on Non-Discrimination</u> offers access to its educational programs and activities as well as employment terms and conditions without respect to race, color, gender, national origin, age, religion, genetic information, disability, veteran's status, sexual orientation, gender identity or gender expression. Such a policy ensures that only relevant factors are considered, and that equitable and consistent standards of conduct and performance are applied.

If you are experiencing harassment or discrimination, you can seek assistance and file a report through the Report and Response Coordinators (email <u>reportandresponse@unc.edu</u> or see additional contact info at <u>safe.unc.edu</u>) or the Equal Opportunity and Compliance Office at <u>https://eoc.unc.edu/report-an-incident/</u>.

Undergraduate Testing Center

The College of Arts and Sciences provides a secure, proctored environment in which exams can be taken. The center works with instructors to proctor exams for their undergraduate students who are not registered with ARS and who do not need testing accommodations as provided by ARS. In other words, the Center provides a proctored testing environment for students who are unable to take an exam at the normally scheduled time (with pre-arrangement by your instructor). For more information, visit http://testingcenter.web.unc.edu/.

Learning Center

Want to get the most out of this course or others this semester? Visit UNC's Learning Center at <u>http://learningcenter.unc.edu</u> to make an appointment or register for an event. Their free, popular programs will help you optimize your academic performance. Try academic coaching, peer tutoring, STEM support, ADHD/LD services, workshops and study camps, or review tips and tools available on the website.

Writing Center

For free feedback on any course writing projects, check out UNC's Writing Center. Writing Center coaches can assist with any writing project, including multimedia projects and application essays, at any stage of the writing process. You don't even need a draft to come visit. To schedule a 45-minute appointment, review quick tips, or request written feedback online, visit <u>http://writingcenter.unc.edu</u>.