

HEALTH ECONOMICS
ECON 850
UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
FALL 2022 SYLLABUS¹

LOGISTICS

Instructor: Andrés Hincapié
Pronouns: *he/him/his*
andres.hincapie@unc.edu
Gardner 101

Class Site:
<https://sakai.unc.edu/portal/site/econ850.fa22>

Department: Economics
Credit Hours: 3.0

Office Hours:
By appointment.
In person or via ZOOM at:
<https://unc.zoom.us/j/94040874121?pwd=amEzQ1F0VThSS0hlaEt4OWFZNFRGZz09>
Passcode: he22fall0h

Lectures:
T/Th 2:00 - 3:15 PM
Gardner Hall - Rm 307

COURSE DESCRIPTION

This course focuses on the consumer side of health economics with an emphasis on dynamic behavior. Topics include health as human capital, demand for medical care, health insurance, health and labor supply interactions, risky and addictive behaviors and innovation and learning. The course has two main objectives. First, it aims to help students become familiar with a subset of economic research in the field as well as the methods employed. Second, it aims to foster critical understanding of health economics as students prepare to embark upon their own dissertation research.

ASSIGNMENTS AND GRADING

- Research proposal (54%)
 - Preliminary broad sketch (8%) [**September 1**]
 - Mid-point research proposal (8%) [**October 4**]
 - Research proposal for peer review (10%) [**November 15**]
 - Proposal presentation (8%) [**November 22, 29**]
 - Final research proposal (20%) [**December 6**]

¹This version was compiled on July 21, 2022. I will notify you of any updates to the syllabus.

- Peer review report: (8%) [**November 22, 30**]
- Paper presentation (8%) [**TBD**]
- Participation (30%)
 - In class participation (15%)
 - Paper summaries (15%) [**Every class based on a journal article or working paper**]

Research groups. Students are allowed and encouraged to work in groups of up to three authors. If a student would like to work with someone but does not have a partner they can submit their names to me (via an email) by **August 25** and I will pair you with other students looking to partner up, provided there is any.

*****Specs for ALL documents (summaries, proposals, peer reports, etc)***:**
1.5 spacing, 1 inch margins, 12pt Times New Roman or similar font.

Extended abstract. Preliminary sketch of topic(s), research question(s), and potential data. Try to make your research questions as sharp and delineated as possible. Length of abstract should be less than one page.

Mid-point research proposal. The mid-point proposal should contain:

- A refined research question, stated as clearly and sharply as possible.
- Motivation for your question (why is it important). (2 paragraphs max)
- A summary of how you intend to answer the question (e.g. an RD design, an IV strategy, a static model, a dynamic discrete-choice structural model, an equilibrium structural model). (2 paragraphs max)
- Related literature: this should include a focal paper (or papers) that you plan to use as a benchmark for your paper and how your work relates. (1 page max)
- Data: brief description of your data sources, summary statistics of key variables, and descriptive tables or figures (1 table max, 3 figures max) that provide insight into your question of interest or motivate your model. (3 pages max)
- Economic model:
 - *Reduced-form proposals:* write down a simple economic model that can provide predictions to be tested with your empirical strategy (2 pages max)

- *Structural proposals*: provide an initial sketch of your model. Who makes choices? What are the choice variables? What's in the utility or objective function? What are the constraints? What's the time horizon? What are the state variables? Who are the decision makers? Is it a game? Are there externalities? Are there inefficiencies? (2 pages max)
- Empirical strategy:
 - *Reduced-form proposals*: write down your empirical equation(s). What is your estimation strategy? How do you plan to identify your causal effect of interest? What are potential confounders? (2 pages max)
 - *Structural proposals*: how do you plan to estimate your model (e.g. ML, SMM, CCPs) and argue why this method is preferable over others. Explain how your data will allow you to identify the policy-invariant, structural parameters of interest. *Note*: If possible, include in your data section reduced-form evidence motivating the mechanisms of your model. (2 pages at most)

We will devote one or two classes to discuss mid-point research proposals. Be prepared to present your work. Time allocated to each group TBD.

Note: You are allowed to make changes to your topic from what you had declared in the initial extended abstract. However, if you would like a major change in your topic make sure to discuss the change with me.

Research proposal for peer review. It should be about 12-15 pages long and it should include:

- Abstract: 100 words or less (this can be single spaced).
- Introduction: including concise answers to the following questions in (at most) the first three paragraphs: What is your research question? Why is your question relevant (motivation)? What would be your contribution to the literature?
- Literature review: thorough but concise. You could make this part of the Intro or you could have it separate.
- Data: refined version of the midpoint proposal (2 tables max, 4 figures max)
- Economic model: refined version of the midpoint proposal.
- Empirical strategy: refined version of the midpoint proposal.
- Preliminary Results: For structural proposals you may provide preliminary simulations of a basic version of your model; check with me about what constitutes acceptable preliminary results.
 - *Reduced-form proposals*: preliminary results from your empirical strategy if possible.

→ *Structural proposals*: simulations from a basic version of your model, reduced form motivation.

- Bibliography.

The proposal will be reviewed by one or more of your classmates. Each of you will provide detailed written comments to a proposal.

Proposal presentation. Depending on the number of research groups, we will devote several classes for authors to present their proposals. Time allocated to each group TBD.

Final research proposal. A final version of the research proposal with modifications after feedback from presentation and peer reviews must be submitted. It still should be about 12-17 pages long.

Research proposal peer review. Provide detailed written comments to another research group's proposal. Be prepared to present and discuss your comments.

Paper presentation. Every student will lead at least one class during the semester with a paper chosen from a set of recent research papers (published, working papers, and job market papers). The collection of candidate papers for presentation will be available in a link in the "Overview" tab in the class site on Sakai (link at top of syllabus). Students can also find a related paper they would like to present (something related to their proposal or to other research ideas); in such case let me know what the paper is and I will assess if the paper is suitable for the class.

In-class participation. Participation is critical for the success of the class. Please come prepared to each class, having read the papers and prepared to discuss them. The more ready and willing you are to ask questions and provide your insight, the more we will all learn. Also, if you are worried about saying things that are wrong, don't be, live your best life making learning mistakes. *Disclaimer*: I ask questions to students in class. It is all for the sake of discussion but if this makes you uncomfortable you can ask me in private to not ask you questions and I will not do so.

Paper summaries. In order to provide a basic ground for discussion every student will create a three-slide summary of each paper we discuss in class. In the first two slides the student must provide a brief (one sentence) response to each of **questions 1 to 5 of the guidelines for reading papers** (see below). In the last slide they should provide a critique and a well delineated research question that occurred to you from reading the paper.

COURSE TOPICS OUTLINE

1. Introduction; 2. Demand for Medical Care; 3. Health Insurance; 4. Health and the Labor Market; 5. Consumption of Addictive Goods; 6. Other Topics (e.g. Innovation, Learning, Long-Term Care, Mental Health).

Tentative Schedule - Fall 2022

Week	Day	Date	Topic	Readings	Comments
1	Tu	8/16	Intro	Arrow (1963); Pauly (1988); Garber and Skinner (2008); Papanicolas, Woskie, and Jha (2018)	
1	Th	8/18	Demand for medical care	Jones (2000)	
2	Tu	8/23	Demand for medical care	Jones (2000); Lewbel (2019) (Sections 1-6)	
2	Th	8/25	Demand for medical care	Manning et al. (1987)**	Partner request due
3	Tu	8/30	Demand for medical care	Finkelstein et al. (2012)**	
3	Th	9/1	Demand for medical care	Grossman (1972b), Grossman (1972a)	Broad sketch due
4	Tu	9/6	NO CLASS		Wellness day
4	Th	9/8	Demand for medical care	Grossman (1972b), Grossman (1972a)	
5	Tu	9/13	Health and labor market	Dynamic Discrete Choice Models	
5	Th	9/15	Health and labor market	Papageorge (2016)**	
6	Tu	9/20	Student presentation	TBD**	
6	Th	9/22	Health and labor market	Gilleskie (1998)**	
7	Tu	9/27	Health and labor market	Gilleskie (1998), Cronin (2019)**	
7	Th	9/29	Student presentation	TBD**	
8	Tu	10/4	Health insurance	Cutler and Zeckhauser (2000)	Mid-point proposal due
8	Th	10/6	Mid Point Presentations		
9	Tu	10/11	Health insurance	Rothschild and Stiglitz (1976)	
9	Th	10/13	Student presentation	TBD**	
10	Tu	10/18	Addictive goods	Becker, Grossman, and Murphy (1994), Darden (2017)	
10	Th	10/20	NO CLASS		Fall Break
11	Tu	10/25	Student presentation	TBD**	
11	Th	10/27	Other topics: Innovation	CCP methods, Hamilton et al. (2021)**	
12	Tu	11/1	Other topics: Innovation	Hamilton et al. (2021)	
12	Th	11/3	Other topics: Innovation	Hamilton et al. (2021)	
13	Tu	11/8	Student presentation	TBD**	
13	Th	11/10	Other topics: Learning	Chan and Hamilton (2006)**	Proposal for peer review due
14	Tu	11/15	TBD**		
14	Th	11/17	TBD**		Peer report due
15	Tu	11/22	Final Presentations		
15	Th	11/24	NO CLASS		Thanksgiving Break
16	Tu	11/29	Final Presentations		
	Tuesday	12/6	Final Proposal Due		Final proposal due

Note: The class schedule is subject to changes depending on how the class develops. ** indicates papers that require summary slides.

OTHER INFORMATION

GUIDELINES FOR READING PAPERS

Question to help you understand the main ideas of the paper. A good introduction should hit most (often all) of these.

1. What is the primary question/issue/hypothesis that the author addresses?
2. What does the author say about why is the question interesting or important?
3. What data does the author use?
4. Give an intuitive description of the author's empirical or structural model. (This is key to making sure you are understanding the paper. If the details of the model are confusing, take a step back and try to think about the big picture.)
5. What are the main findings?

Questions to help you to think critically about the paper.

6. Did you find the question interesting and relevant?
7. Are you convinced by the author's results/arguments? Why or why not?
8. Did they identify the effect they claimed to identify? Why or why not?
9. Did the results obtained justify the interpretation and conclusions? (Often this may include concerns about external validity or heterogeneous treatment effects.)
10. Were the findings well supported by economic theory? In the cases where the paper does not have a clear theoretical model, do you think a model would have been helpful or that the lack thereof might lead to erroneous conclusions?

SEMINARS

Students are encouraged to attend the seminars listed below. At this point in your graduate career these are great sources for ideas as you look for field paper and dissertation topics.

- Triangle Health Economics Workshop: <http://theweb.unc.edu>
- UNC Applied Micro: <https://econ.unc.edu/seminars/applied-microeconomics/>
- UNC Applied Micro (student workshop): TBD, email Professor Gong to be included in the listserv.

- Electronic Health Economics Colloquium: <https://www.ehealthecon.org>

You may also be on the lookout for presentations at Duke and NC State.

OTHER RESOURCES

If you ever need assistance from a librarian, Nancy Lovas is the economics librarian. She is available to work with you on your research if you were to need it. You can email or meet with her to talk about developing a research question, identifying databases, how to search for information, literature reviews, finding datasets, and more. You can make an appointment with Nancy at <https://calendar.lib.unc.edu/appointments/business> or contact her via email at nancy64@email.unc.edu. In addition, Professor Gilleskie's old syllabus has a number of data sources you may find useful.

POLICIES AND EXPECTATIONS

Attendance. Following university policy: 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; disability/religious observance/pregnancy, as required by law and approved by Accessibility Resources and Service and/or the Equal Opportunity and Compliance Office (EOC); significant health condition and/or personal/family emergency as approved by the Office of the Dean of Students, Gender Violence Service Coordinators, and/or the EOC. Instructors may work with students to meet attendance needs that do not fall within University approved absences.

Class Conduct. During class and office hours (and hopefully in your life in general!) I expect we all communicate with respect and civility. I am not a huge fan of discriminatory language so such behavior will be allowed in the class.

Attendance. Following university policy: 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; disability/religious observance/pregnancy, as required by law and approved by Accessibility Resources and Service and/or the Equal Opportunity and Compliance Office (EOC); significant health condition and/or personal/family emergency as approved by the Office of the Dean of Students, Gender Violence Service Coordinators, and/or the EOC. Instructors may work with students to meet attendance needs that do not fall within University approved absences.

Honor Code. All students are expected to follow the guidelines of the UNC honor code. In particular, students are expected to refrain from lying, cheating, or stealing in the academic context. If you are unsure about which actions violate that honor code, please consult honor.unc.edu.

Accessibility Resources and Services. UNC facilitates the implementation of reasonable accommodations, including resources and services, for students with disabilities, chronic medical conditions, a temporary disability or pregnancy complications resulting in barriers

to fully accessing University courses, programs and activities. Accommodations are determined through the Office of Accessibility Resources and Service (ARS) for individuals with documented qualifying disabilities in accordance with applicable state and federal laws. See the ARS Website for contact information: <https://ars.unc.edu> or email ars@unc.edu.

Counseling and Psychological Services (CAPS). CAPS is strongly committed to addressing the mental health needs of a diverse student body through timely access to consultation and connection to clinically appropriate services, whether for short or long-term needs. Go to their website: <https://caps.unc.edu/> or visit their facilities on the third floor of the Campus Health Services building for a walk-in evaluation to learn more.

Title IX 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/>. Please contact the University's Title IX Coordinator (Elizabeth Hall, interim – titleixcoordinator@unc.edu), Report and Response Coordinators in the Equal Opportunity and Compliance Office (reportandresponse@unc.edu), Counseling and Psychological Services (confidential), or the Gender Violence Services Coordinators (gvsc@unc.edu; confidential) to discuss your specific needs. Additional resources are available at safe.unc.edu.

Mask Use. (Just in case) If we somehow find ourselves again in the midst of a mask mandate (**I really hope we don't have to go back to this :/**) all enrolled students will be required to wear a mask covering mouth and nose at all times in our classroom. If you choose not to wear a mask, or wear it improperly, I will have to ask you to leave the classroom.

References

- Arrow, K.J. 1963. “Uncertainty and the Welfare Economics of Medical Care.” *The American Economic Review* 53 (5):941–973.
- Becker, Gary S., Michael Grossman, and Kevin M. Murphy. 1994. “An Empirical Analysis of Cigarette Addiction.” *The American Economic Review* 84 (3):396–418.
- Chan, T.Y. and B.H. Hamilton. 2006. “Learning, Private Information, and the Economic Evaluation of Randomized Experiments.” *Journal of Political Economy* 114 (6):997–1040.
- Cronin, Chris. 2019. “Insurance-Induced Moral Hazard: A Dynamic Model of Within-Year Medical Care Decision Making Under Uncertainty.” *International Economic Review* 60 (1):187–218.
- Cutler, David M. and Richard J. Zeckhauser. 2000. “The Anatomy of Health Insurance.” In *Handbook of Health Economics*, vol. 1A, edited by Anthony J. Culyer and Joseph P. Newhouse, chap. 11. Elsevier, North-Holland, 563–643.
- Darden, Michael. 2017. “Smoking, Expectations, and Health: A Dynamic Stochastic Model of Lifetime Smoking Behavior.” *Journal of Political Economy* 125 (5):1465–1522.
- Finkelstein, Amy, Sarah Taubman, Bill Wright, Mira Bernstein, Jonathan Gruber, Joseph P. Newhouse, Heidi Allen, Katherine Baicker, and Oregon Health Study Group. 2012. “The Oregon Health Insurance Experiment: Evidence from the First Year.” *The Quarterly Journal of Economics* 127 (3):1057–1106.
- Garber, Alan M. and Jonathan Skinner. 2008. “Is American Health Care Uniquely Inefficient?” *The Journal of Economic Perspectives* 22 (4):27–50.
- Gilleskie, Donna. 1998. “A Dynamic Stochastic Model of Medical Care Use and Work Absence.” *Econometrica* 66 (1):1–45.
- Grossman, Michael. 1972a. *The Demand for Health: A Theoretical and Empirical Investigation*. New York: Columbia University Press.
- . 1972b. “On the Concept of Health Capital and the Demand for Health.” *The Journal of Political Economy* 80 (2):223–255.
- Hamilton, Barton, Andrés Hincapié, Robert Miller, and Nicholas Papageorge. 2021. “Innovation and Diffusion of Medical Treatment.” *International Economic Review* 62 (3):953–1009.
- Jones, Andrew M. 2000. “Health Econometrics.” In *Handbook of Health Economics*, vol. 1A, edited by Anthony J. Culyer and Joseph P. Newhouse, chap. 6. Elsevier, North-Holland, 265–344.
- Lewbel, Arthur. 2019. “The Identification Zoo: Meanings of Identification in Econometrics.” *Journal of Economic Literature* 57 (4):835–903.

- Manning, Willard G., Joseph P. Newhouse, Naihua Duan, Emmett B. Keeler, and Arleen Leibowitz. 1987. "Health Insurance and the Demand for Medical Care: Evidence from a Randomized Experiment." *The American Economic Review* 77 (3):251–277.
- Papageorge, Nicholas W. 2016. "Why Medical Innovation is Valuable: Health, Human Capital, and the Labor Market." *Quantitative Economics* 7 (3):671–725.
- Papanicolas, Irene, Liana R. Woskie, and Ashish K. Jha. 2018. "Health Care Spending in the United States and Other High-Income Countries." *JAMA* 319 (10):1024–1039.
- Pauly, Mark V. 1988. "Is Medical Care Different? Old Questions, New Answers." *Journal of Health Politics, Policy and Law* 13 (2):227–237.
- Rothschild, Michael and Joseph Stiglitz. 1976. "Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information." *The Quarterly Journal of Economics* 90 (4):629–649.