

Economics of Health Care (Econ 456-01)

Department of Economics
The College of William & Mary
Fall 2020

Class meets Tuesdays & Thursdays, 3:30-4:50 on zoom. See the announcement board on Blackboard for zoom link and passcode.

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About me My primary research interests are in the fields of health economics, applied econometrics, and economics of human development. Prior to coming to William and Mary I worked at the University of Chicago and at Vanderbilt.

Office Hours Because of online teaching, in-person office hours are replaced by answering questions by e-mail. For questions that benefit from discussions students should feel free to request a zoom meeting.

Prerequisite Intermediate Micro Theory (Econ 303)

About this course This course is an introduction to health economics, a fast-growing field of applied economic research. As US health spending has exceeded 1/6th of GDP, health economics research is becoming increasingly influential. In this course, you will study concepts, research methods, and the institutional background of health economics. In particular, you will learn about the US health care system and health reform, determinants of health and longevity, demand for health and health care, value of life, supply of health care, demand for health insurance, moral hazard, adverse selection, comparative health systems, and universal insurance. Moreover, students will study one specific research area of their choice in detail by writing a term paper.

Required Reading Required reading for this course includes *Health Economics* by Charles Phelps, 5th edition, as well as a number of papers (those marked with an asterisk) that are listed below in the bibliography section and will be posted on Blackboard. Students are free to use the 4th edition or the 6th edition instead as long as they make sure that they do the right homework and read the right part of the textbook. In addition, students should read and review lecture slides as they include material not covered by the textbook and provide a somewhat different interpretation of theory and results than in the textbook. Students should also know formulas and charts that I present on the white board. Except for my white board writing, these additional materials are available on Blackboard.

Suggested Reading The Handbook of Health Economics in two volumes edited by Culyer and Newhouse (2000) and suggested research papers listed in the bibliography section make great supplementary reading for those who would like to pursue the subject in greater depth and to a higher technical level than ~~it~~ is required to successfully pass the course. Many more suggested papers are listed in the separate suggested reading literature list that is available on Blackboard.

Some of you may also find the handbook and the supplementary research papers helpful for working on your term paper. You can get access to The Handbook of Health Economics through the WM library website. See Blackboard for zipped folders containing required and supplementary papers.

Group work Group work is highly beneficial for learning since students learn from each other and get superior motivation. Moreover, group work creates skills that are essential for students' future careers: teamwork is common in professional work environments. I ask students to form groups that, ideally, consist of 3–4 people to work together on problem sets and the project.¹ Please answer the questionnaire on group formation in the end of this syllabus and submit it as specified in the list of important deadlines (see below). Only one group member should submit the questionnaire for the whole group.

Students are free to change the group, split the group, or start working alone at any time (just give others a notice a week ahead of the next deadline). Please view group work as your resource and learning opportunity, not a duty. Shirkers should beware that one day their group members may form another group that does not include them. If this happens, they may end up working alone. Groups are encouraged to support group members who work hard but may initially lack certain skills or knowledge that others have.

Grading:

Homework, 25%

Midterm exam, 23%

Term paper, 25%

Cumulative final exam, 25%

All group work in class, 2%

Points will not be subtracted for missing lectures, but students skipping lectures may lose points indirectly by missing important ideas, exam tips, or graded class work. They also may miss a bonus for active class participation.

Midterm and Final Exams I will give a midterm during a class and a 2-hour *cumulative* final exam after classes end (see the list of important dates).

A cumulative final covers all topics in the course, not only those after the midterm, which allows for an upward correction of the midterm grade. If your score for the final exam is higher than your score for the midterm, then I will automatically replace your midterm exam score with the final score. For instance, if you get 85% for the midterm and 95% for the final, I will automatically replace 85% with 95%. However, if you get 80% for the final, I will make no such adjustments so that you keep your midterm score of 85%. The aim of this policy is to encourage academic progress and give students a chance to improve their midterm scores.

I will administer the both midterm and final exams though Blackboard. The exam will be “open book and open notes” type. Open book exam does not mean, however, that

¹ All members of the group will share the same scores for work that they submitted jointly. I allow groups to merge or split at any time if they find such changes productive. There is no need for any approval as long as the group stays within the limit of 4 members.

students can relax and skip preparing. There will be not enough time during the exam to search for all answers in the book or notes. Some questions may require integrated knowledge from various parts of the course, and so it will be impossible to find a ready answer by searching through the textbook or online during the exam. Group work on the exam is against the honor code. I plan to take all possible measures to prevent a possibility of cheating.

Group work in class This work provides up to 2% of points for the semester-long effort. I may assign group work during any class, with no prior notification. Be prepared to work with a group that is randomly chosen by zoom. The group work may be based on new material from the same class or any previous material. For the best results, students are encouraged to keep tidy class notes, make sheets with formulas and definitions for quick reference, pay attention in class, and ask questions in class or during office hours if things are unclear. This policy encourages class participation and incentivizes students to pay attention in class and to stay on top of the material. Plus, students learn from each other while doing the class assignment.

Reward for active class participation Students who provide both useful and regular contributions to class discussions, ask good questions, and provide answers to questions that I ask the class during lectures will be rewarded by a higher grade in marginal cases (e.g, a B+ that is close enough to an A- will translate to A- for such student).

Homework Expect six home assignments. They will be distributed at least one week prior to the deadline.

Please submit versions in either PDF or MS Word/RTF. Typing answers is highly encouraged. Typing many formulas might be time-consuming, and so a scan of clear handwriting can be used for those. I will regard unreadable answer as no answer.

Unless announced otherwise, homework assignments are due on Thursday by class time to the same folder on blackboard that contains homework questions. Groups have one week to complete homework (the homework is usually posted on Thursday evening or earlier). Each group is allowed to submit one late homework to cover unexpected circumstances (submit on Tuesday by class time or earlier).

I will drop your lowest homework score to boost your average and total homework score.

Copying answers from other groups or any other source constitutes an honor code violation.

Groups should list all its members who contributed enough to submitted homework. This list may change over time, as composition of working groups may change.

Term paper Each team must submit one joint paper by the deadline outlined in the list of important dates. The paper is a critical literature review on the topic of your choice related to economics of health and health care. “Critical” means that you not only survey the literature but express your own opinion about the research of others. Please, submit a copy of your term paper in pdf or MS Word/RTF to the term paper folder on blackboard (to be created).

Please make your paper informative but short: no more than 10 pages, 12pt font, double-spaced (distance between lines). Students are free to add graphs and tables (in case they are needed) on top of this text page limit. Please use Chicago style for references. For a satisfactory review, you need to cite at least seven scholarly papers, at least four of them written by an economist or in co-authorship with an economist. Popular press papers do not count as scholarly papers. Unpublished (or “working”) scholarly papers can be included into your review.

Ambitious students or teams who are more research-oriented have an option of supplementing their literature review with their own original research results. In that case, the literature review should be related to the original results of your paper and the authors should argue how they contribute to the literature.

Teams or students who already have ongoing health-related original research have an option to continue that research. Those interested should write an e-mail to the professor, submit the latest version of their paper, obtain an approval of their plan on how to improve the paper, and show substantial value added by the end of the semester (amount of work comparable to other groups who started from scratch). Page limitations for such paper-in-progress are relaxed.

Please find below a list of titles of quality papers that were submitted for this class in the near past (all topics and titles originated from students). Note that titles are very specific, and so these papers deeply study or review a specific research question. Your group can pick any topic from health economics, including topics related to examples listed below.

- “A Review of Food Desert Research Literature with a Case Study of Food Deserts and Obesity Hospitalization in Virginia,” original research
- “Use of Mental Health Care During Economic Downturns,” a review
- “Economic Review of the Opioid Epidemic,” a review
- “Link between Medical Marijuana and Hard Drug Use,” a review
- “The Economic Cost of Obesity,” a review
- “Does Human Capital Mitigate the Depressive Effect of Spousal Disability? Evidence from the Health and Retirement Survey,” an original research paper
- “The Effect of UberX on Motor Vehicle Accident Outcomes in Virginia,” an original research paper

Abstract You need to submit the title of your term paper and a 100-150 word abstract by the deadline (see the list of important dates below). E-mail it to the professor and CC to your group members. You will get feedback by e-mail as a reply to your e-mail. To make you’re your e-mail is not lost, please use e-mail subject “Econ 456 Abstract”. Argue in the abstract why your paper is important, and which policy implications you would expect to be derived from your review or analysis. Report the names of all the authors. The abstract will not be graded, but it is needed for feedback and for boosting your thinking about term paper. Students are free to change their initial plan of work if needed upon a discussion with the professor.

Guest Speakers There will be three guest speakers throughout the semester presenting research (~50 minutes) related to COVID-19. Students must watch the talks and be prepared to discuss them in class and be ready that questions related to these talks may

appear on exams. All talks will be virtual and recorded if you cannot attend them when they are scheduled. Life participation is highly encouraged. Asking good questions to guest speakers counts for the active class participation credit. These COVID-related talks fulfill the required requisite for three 50-minute-long “instructional hours” that need to be made up because of the shortened academic calendar. Note the time outside usual classes: Wednesdays, 7pm.

Three Compulsory Talks Related to COVID-19:

- 1) Nick Papageorge, Broadus Mitchell Associate Professor of Economics, Johns Hopkins University, <https://nicholaswpapageorge.com/>, Wed, September 9, at 7 pm. Topic: TBD.
- 2) Marvin Figueroa, Legislative Director, Governor Ralph Norman; Former Virginia Deputy Secretary of Health and Human Resources. Wed, September 23 at 7 pm. Topic: TBD.
- 3) Eric Pedersen, Associate Professor of Psychiatry and the Behavioral Sciences, University of Southern California, <https://keck.usc.edu/faculty-search/eric-pedersen/>. Wed, October 28 at 7 pm. Topic: The Impact of COVID-19 on College Students Studying Abroad.

More details on the talks:

- Each talk would be 50 minutes long: 5min introduction, 25 minute presentation, 20 minute moderated Q&A.
- Each talk would have faculty host, who could set stage for multi-disciplinary perspectives and moderate the Q&A
- Students will be reminded about each talk and will be given a zoom link.

The Writing Resources Center (WRC) The Writing Resources Center, located on the first floor of Swem Library, is a free service provided to W&M students. Trained consultants offer individual assistance with writing, presentation, and other communication assignments across disciplines and at any stage. To make an appointment, visit the WRC webpage www.wm.edu/wrc.

Important Dates

- 08/20: the first lecture
- 08/25: group formation questionnaire available in the end of this syllabus due by e-mail by 10pm. Existing groups submit one questionnaire, not one from each member.
- 09/09, 09/23, 10/28: 7:00-7:50pm: COVID-19-related talks by guest speakers. Compulsory for either attending or watching the recording. Note that time is outside usual classes: Wednesdays, 7pm.
- 09/03, 09/10, 09/24; 10/15, 10/22, 11/05: home assignment due on blackboard by the class time (assignments will be posted on the Blackboard a week ahead of the deadline. One representative from each working group uploads the finished homework to the same folder.)
- 10/01: midterm exam on Blackboard during class time only

- 10/08: title and abstract of the term paper due in class
- 11/10: pdf of the paper due by 10pm to a designated folder on dropbox. Students should feel free to submit the paper any time before the deadline.
- 11/12: the last class
- 11/20, Friday: 2-hour cumulative final exam, 2-4pm, use Blackboard to write it

Main Topics and Expected Dates Allocated to These Topics (subject to change)

Numbers of the topics correspond to numbers of handouts (lecture slides) available on Blackboard

1. Overview [*August 20, 25*]
2. US Health Care System and the Health Reform [*September 1, 3*]
3. Determinants of Health and Longevity and Developmental Origins of Health and Health Behaviors [*September 8, 10, 15*]
4. Demand for Health and Health Care [*September 17, 22, 24*]
[midterm exam will cover topics 1-4]
5. Value of Health, Life, and Medical Progress [*October 8, 13, 15*]
6. Supply of Health Care [*October 20, 22, 27*]
7. The Demand for Health Insurance, Moral Hazard, and Adverse Selection [*October 29, November 3*]
8. Comparative Health Systems and Universal Insurance [*November 5, 10*]
[cumulative final exam will cover topics 1-8]

Feedback I highly encourage students to provide me with feedback on how to further improve this course. I conduct informal and anonymous surveys during the semester to seek feedback.

Disability Service William & Mary accommodates students with disabilities in accordance with federal laws and university policy. Any student who feels he/she may need an accommodation based on the impact of a learning, psychiatric, physical, or chronic health diagnosis should contact Student Accessibility Services staff at 757-221-2509 or at sas@wm.edu to determine if accommodations are warranted and to obtain an official letter of accommodation. For more information, please see www.wm.edu/sas .

Bibliography

Notation:

*– required reading

No asterisk – suggested reading (for those who want to learn more than required to pass the course. Some suggested reading may help you better understand lecture slides or better prepare your in-class presentation.

“[source]” means that this reading was as one of major sources for the lecture handouts, and so if anything is unclear in lectures students can refer to the original source. However, lecture notes have many more sources than listed below. More minor sources are referred to directly from lecture slides.

All lecture slides are part of the required reading (to be available on Blackboard)

See a separate file on Blackboard for a much longer list of suggested reading.

1 Overview

*Phelps, “Health Economics,” 5th edition, Chapter 1 [source]

Culyer and Newhouse, 2000, “State and Scope of Health Economics,” *Handbook of Health Economics*, 1A: 1-8.

Emanuel E.J., Fuchs V.R., 2005, “Health Care Vouchers—A Proposal for Universal Change,” *New England Journal of Medicine*, 352:1255-1260.

2 US Health Care System and the Health Care Reform

*Phelps, “Health Economics,” 5th edition, Chapter 16 [source]

*Fuchs V., 1996, “Economics, Values, and Health Care Reform,” *American Economic Review*, 86(1): 1-24. [*required reading is part III only, pp 15-21, parts I and II are only suggested] [source]

*Milton Friedman, 2001. “How to Cure Health Care?” *The Public Interest* www.thepublicinterest.com/archives/2001winter/article1.html [source]

Casey B. Mulligan, 2013. Average Marginal Labor Income Tax Rates under the Affordable Care Act. NBER Working Paper No. 19365. August 2013 <http://www.nber.org/papers/w19365> [source]

3 Determinants of Health and Longevity; Developmental Origins of Health and Longevity

*Phelps, “Health Economics,” 5th edition, Chapter 2 [source]

Becker, Murphy, and Grossman (2006). The Market for Illegal Goods: The case of Drugs. *JPE*. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=880802 [source]

Handbook of Health Economics, 2000. Chapters 29 (Economics of smoking), 30 (Alcohol), and 31 (Prevention).

Becker G., 2007, Health as Human Capital: Synthesis and Extensions, *Oxford Economic Papers*, 59(3):379-410.

Cutler, Deaton and Lleras-Muney, 2006, “The Determinants of Mortality,” *Journal of Economic Perspectives*, 20(3): 97-120.

Peter Savelyev and Kegan Tan. Socioemotional Skills, Education, and Health-Related Outcomes of High-Ability Individuals. *American Journal of Health Economics*. Vol. 5,

No. 1, 2019, pp. 250-280. Most updated working paper (the version accepted by the *AJHE*): https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2450869.

4 Demand for Health and Medical Care

*Phelps, “Health Economics,” 5th edition, Chapters 4 and 5 (and look through chapter 2 again) [source]

Galama, Titus J. and Hans van Kippersluis*, A Theory of Socio-economic Disparities in Health over the Life Cycle. *Econ J* (London). 2019 Jan; 129(617): 338–374.
doi: 10.1111/eoj.12577 [source]

Deaton A., 2002, “Policy Implications of the Gradient of Health and Wealth,” *Health Affairs*, 21(2): 13-30.

Grossman M., 2004, “The Demand for Health, 30 Years Later: A Very Personal Retrospective and Prospective Reflection,” *Journal of Health Economics* 23(4):629-636.

5 Value of Health, Life, and Medical Progress

*Charles Phelps, Value of Life, Appendix to Chapter 14 [source]

*W. Kip Viscusi, 2005. The Value of Life (a working paper for the article in the *New Palgrave Dictionary of Economics*).
http://www.law.harvard.edu/programs/olin_center/papers/pdf/Viscusi_517.pdf [source]

Viscusi W. K., 2013. Estimating the Value of a Statistical Life Using Census of Fatal Occupational Injuries (CFOI) Data. Working paper, Vanderbilt University. Forthcoming in *Monthly Labor Review*. [source]

Murphy K., Topel R., 2006, “The Value of Health and Longevity,” *Journal of Political Economy*, 114(5): 871-904. [source]

Becker G., 2007, *Health as Human Capital: Synthesis and Extensions*, *Oxford Economic Papers*, 59(3):379-410. [source]

6 Supply of Health Care: Hospitals and Physicians

*Phelps, “Health Economics,” 5th edition, Chapters 6 and 9 [source]

*Stable matching: Theory, evidence, and practical design. The Prize in Economic Science 2012. The Royal Swedish Academy of Sciences. [source]

7 Demand for Health Insurance and Medical Care, Moral Hazard and Adverse selection

*Phelps, “Health Economics,” 5th edition, Chapter 10 [source]

8 Comparative Health Systems and Universal Insurance

*Phelps, "Health Economics," 5th edition, Chapter 10, pp. 280-285 (asymmetry of information and health insurance) [source]; Chapter 16 [source]

Handbook of Health Economics, 2000. Chapters 1, 19, 34, and 35

I reserve the right to alter the form and content of the course in order to adjust to the needs and level of students enrolled in the class.

Group Formation Questionnaire

I need one form filled from each group (or from a student who has no group)
Submit the form by e-mail by the deadline (see the list of important dates above)

1. Your name:
2. Have you formed a group of 3–4 students (including you) enrolled in this class?
(Yes/No) [If no, please skip to question 5]
3. Please list names of your group members (excluding you):

(1)

(2)

(3)
4. Is your group open to admitting more members among those who found no group
(to be assigned to your team by the professor)? (Yes /No) [skip to question 6]
5. Would you like to be assigned to a group by the professor? Yes / No
6. Your comments or suggestions (if any):