

Economics of Health Care (Econ 456-01)

**Department of Economics
The College of William & Mary
Spring 2020**

Class meets Mondays & Wednesdays, in Tyler 134, 2:00-3:20

Professor Peter Savelyev (pasavelyev@wm.edu)

Office Hours Wednesdays and Thursdays, 5:00-6:30 or by appointment in Tyler 232

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.

TA Max Sacher (mnsacher@email.wm.edu)

Office Hours Tuesdays, 6:30-8:00pm in Tyler 212, starting February 4 and ending April 28, excluding holidays

Main responsibilities of the TA during office hours Help students better understand home assignments, lecture notes, and other handouts

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 exceeds 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. 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 keep group members who work hard but may initially lack certain skills or knowledge that others have.

Grading Scale

Homework, 25%

Midterm exam, 23%

Term paper, 15%

Presentation of the term paper, 10%

Cumulative final exam, 25%

All group work in class, 2%

Points will be subtracted for not attending presentations of your peers at the end of the semester and for not attending talks by guest speakers, if any (one percentage point per missed day of class). Points will not be subtracted for missing regular lectures, but students skipping classes may lose points indirectly by missing, for instance, important information or graded class work/discussion.

Midterm and Final Exams I will give a midterm and a *cumulative* final exam. 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 (see below). Both the midterm and the final require closed books and notes. See the list of important dates for exam dates.

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

¹ Unless your group chooses to exclude its member for systematic lack of contribution to the group work, all members of the group will share the same scores for home assignments and their original research presentation. It is up to the group how they divide the work. I allow groups to merge or split at any time if they find such changes productive.

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.

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. 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 hard copies. Typing answers is welcomed but not a must. Typing formulas might be especially time-consuming and is not required. If you do not type, please write very clearly so that the text is readable. Unreadable answer will be graded as no answer.

Unless announced otherwise, hard copies of homework assignments are due on Wednesday in class. Groups have one week to complete homework (the homework is usually posted on Wednesday evening or earlier). Each group is allowed to submit one late homework to cover unexpected circumstances (submit on Monday in class 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.

On each homework, please list all group members who deserve credit for preparing that homework.

Students are advised to sign their homeworks with individual id numbers specific for this course to be distributed by the professor, not with actual names. The aim of the policy is to follow college-wide policy of protecting private information. The TA will not know the authors of each home assignment unless the authors choose to reveal this information themselves to the TA. The TA has no access to a list of any grades by name.

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 and its possible

policy implications. Please, submit a hard copy of your term paper in class by the deadline specified below plus send an electronic copy to pasavelyev@wm.edu by the deadline.

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.

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 you 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 meet the professor at office hours or after class, 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,” 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). Argue in the abstract why your paper is important, and which policy implications you would expect to be derived from your analysis. List names of all authors (actual names, not id numbers). The abstract will not be graded but is needed for feedback and for boosting your thinking about term paper. The professor will provide written feedback on each abstract. Students are free to change their paper topic later but it makes sense to put in good effort and find a good topic from start.

Presentation Each team will give a short in-class presentation of their term paper. Presentations will take place at the end of the semester (see “important dates” section below). I strongly advise against including videos in presentations: there will be little time per each talk, and so not enough time to show videos. Presentations are expected to

take no more than 10-25 minutes depending on the number of teams presenting on the same day as you. Talk evaluation criteria are the following:

- (1) This presentation is thoughtful, it surveys a substantial literature, and it is carefully executed
- (2) Authors not only survey results of others (and, possibly, explain their original results if any), but also critically compare these results
- (3) Clear, well-structured, well-presented, and informative talk

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

01/22: the first lecture

01/27: group formation questionnaire due in class

02/05, 02/12, 02/26, 03/25, 04/01, 04/15: expected deadlines for six home assignments (assignments posted one week prior to the deadline)

03/04: midterm in class

03/07-03/15: spring break

03/18: title and abstract of the term paper due in class

04/22, 04/27: in-class group presentations of projects (attendance compulsory)

04/29: the last lecture

05/01: term paper due by 5pm to the in-box right outside my office (or slide it under my door). Students should feel free to submit the paper any time before the deadline.

05/11: 2-hour cumulative final exam, 2-4pm, same room

Main Topics and Expected Dates (subject to change) Numbers of the topics correspond to numbers of handouts (lecture slides) available on Blackboard

1. Overview [*January 22, 27*]

2. US Health Care System and the Health Reform [*Jan. 29; Feb. 3, 5*]

3. Determinants of Health and Longevity and Developmental Origins of Health and Health Behaviors [*Feb. 10, 12, 17*]

4. Demand for Health and Health Care [*Feb. 19, 24, 26*]

[midterm will take place on March 4 and will cover topics 1-4]

5. Value of Health, Life, and Medical Progress [*March 16, 18, 23*]

6. Supply of Health Care [*March 25, 30; April 1*]

7. The Demand for Health Insurance, Moral Hazard, and Adverse Selection [*April 6, 8*]

8. Comparative Health Systems and Universal Insurance [*April, 13, 15*]

Computer policy I allow the use of laptop computers and other electronic devices in class, but only for course-related purposes such as making notes or reading electronic handouts. I do not allow the use of computers and any other devices with Internet access during the exam.

Feedback I highly encourage students to provide me with feedback on how to further improve this course the earlier the better. I also conduct informal and anonymous surveys of students 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 Kegen 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).

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):