

University of Maryland - Department of Economics

Masters in Applied Economics

Economics 671: Healthcare Economics

Summer 2018

Tuesdays: 6:45 PM - 9:30 PM¹

Professor: Patrick Richard, PhD; M.A.

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Office Hours: Tuesdays: 5:30 pm to 6:30 PM or by appointment.

Grader/TA: Heehyun (Rosa) Lim

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Office hours: Wednesdays 5:00-6:30

Course Description

This course applies economic principles and concepts to health policy issues including the demand and production of health services, health care costs, and healthcare markets. Specific topics include the structure, conduct and performance of private and public health insurance markets, physicians, hospitals, pharmaceutical and long-term care industries. The course also covers briefly economic evaluation methods such as cost-benefit analysis, cost-effectiveness analysis, and cost-utility analysis. Issues associated with the Affordable Care Act (ACA) and other healthcare policy regulations are emphasized throughout the course. At the end of the course, students will be able to:

- Understand the factors that influence the demand and supply of health care services in the United States
- Able to use economic tools to assess health intervention programs in the United States
- Understand the role of economic incentives, competition, regulation, and government on the functioning of the health care markets

¹ There will be a 15-minute break at some point between 7:45 and 8:15

Prerequisites: Microeconomic Analysis (ECON 641) & Empirical Analysis II: Introduction to Economic Models (ECON 644)

Co-requisites: - Empirical Analysis III: Econometric Modeling and Forecasting (ECON 645)

Course Learning Objectives:

- Ability to understand, evaluate and analyze economic data
- Ability to understand and interpret statistical evidence from economic data
- Ability to apply empirical evidence to assessing economic arguments
- Ability to apply microeconomic theories to policy discussions
- Ability to communicate economic ideas to a broader audience
- Ability to evaluate the effectiveness of policy programs using sound economic techniques

Required Book: Health Economics: Theories, Insights and Industry Studies (2013), 6th Edition, 2013. Rexford Santerre and Stephen Neun (S&N)

Recommended Book: Health Economics and Financing, 5th Edition. Getzen, Thomas E.

Methods of Evaluation

% of Final Grade

Online discussions	5
Participation in in-class discussions and assignments (problem sets, presentations, and short essays)	10
2 Assignments	25
Mid-term Exam	20
Presentation of an original empirical work	20
Final	20

Grading Standards

Online discussions – There will be 5 questions posted each week to motivate the discussions for each online discussion and the instructor will actively participate in all discussions. Discussions will take place in-between sessions and need to be completed before class on Tuesdays. Each question is worth a full grade if response is specific and supported by empirical evidence; between $\frac{1}{2}$ and $\frac{3}{4}$ of a point if evidence is provided but does not reflect the state of knowledge in the topic area; and zero if no response is provided.

Participation in in-class discussions and assignments (problem sets, presentations, and short essays) – This is broken into two parts: 1) in-class discussions and problem sets resolutions; 2) short presentations on “methods”.

For the first part, a score from 4 to 5 is assigned if a student consistently (at least once per session) and actively participates in in-class discussions and resolutions of problem sets; a score from 2 to 3 is assigned if a student usually participates in in-class discussions and resolutions of problem sets.

Additionally, for the short presentation on “methods”, scores from 1 to 5 will be assigned to each student depending on their presentation and ability to answer specific questions from instructor or other students.

2 Assignments- Specific numerical grades will be assigned depending on different sections of the assignments (guidelines that cover each section of the assignments will be provided in class). Full numerical grade is assigned for a specific section if a student shows complete and specific responses based on the guidelines provided in class.

Mid-term and final exams - Specific numerical grades will be assigned for each question. Full numerical grade is assigned for a specific question if a student shows the ability to synthesize materials from the course to answer the question specifically.

Presentation of an original empirical work - Full numerical grade is assigned if a student follows the different sections of the guidelines provided in class during presentation and is able to provide specific responses to questions from instructor or other students.

Grading Scale

At the end of the term, every student will have a numerical course grade between 0 and 100 and numerical course grades will be translated into letter grades as follows:

93-100	A
90-92	A-
80-89	B+
70-79	B
60-69	B-
50-59	C+
40-49	C
30-39	C-
20-29	D+
10-19	D
0-9	F

Session Outline	Date
<p>Session 1 – Introduction to Supply & Demand in Healthcare Markets</p> <p>1. Lecture- Required Readings</p> <p>a. S&N Ch.8---Start on page 223; skip the section on “A Note on Long-Run Entry and Exit in a Perfectly Competitive Market (p231). Start again at “Using Supply and Demand to Explain Rising Healthcare Costs (p232) — skip from “Barriers to Entry” p235-241; start again on p 241 (Oligopoly) to p246. Read the section on “Measuring Market Concentration (p248); skip the section on Identifying Market Power (250) ---read the “Summary”.</p>	05/29/2018

Session Outline	Date
<p>b. Arrow, Kenneth J. 1963. "Uncertainty and the Welfare Economics of Medical Care," <i>American Economic Review</i> 53(5): 941-973.</p> <p>2. Health Economics in Action Required Activity (Online Discussions):</p> <p>a. Watch the following video (the first 5 minutes and the presentation by Darius Ladawalla—from 36 minutes to 46 minutes) @ https://www.youtube.com/watch?v=rP2snlvYCd0</p> <p>Specific questions will be posted on-line for discussions.</p> <p>3. Recommended reading:</p> <p>a. Fuchs, Victor R. "What is Health Economics?" in <i>The Future of Health Policy</i>. Boston: Harvard University Press, pp. 27-40.</p> <p>N.B. Be sure to bring your laptop as we will discuss and conduct activities on the data needed for the empirical/applied component of the course.</p> <p>Data from the 2015 Household and Medical Organization Components of the Medical Expenditures Panel Survey (MEPS) will be used for the empirical component of the course. Other data sets may be provided by the Instructor upon request.</p> <p>See MEPS website for more details @ https://meps.ahrq.gov/mepsweb/</p>	
<p>Session 2- Economic Evaluation Methods</p> <p>1. Lecture- Required Reading:</p> <p>a. S&N Ch.3</p> <p>2. Health Economics in Action Required Readings:</p> <p>a. Briggs, A. (2016). A View from the Bridge: Health Economic Evaluation—A Value-Based Framework?. <i>Health economics</i>, 25(12), 1499-1502.</p> <p>b. Neumann, P. J., & Sanders, G. D. (2017). Cost-effectiveness analysis 2.0. <i>N Engl J Med</i>, 376(3), 203-205.</p> <p>3. Empirical Examples from the MEPS</p>	<p>06//05/2018</p>
<p>Session 3- Healthcare Costs Modeling</p> <p>1. Lecture-Required Reading:</p> <p>a. Hartman, M., Martin, A. B., Espinosa, N., Catlin, A., & National Health Expenditure Accounts Team. (2017). National Health Care Spending In 2016: Spending And Enrollment Growth Slow After Initial Coverage Expansions. <i>Health Affairs</i>, 37(1), 150-160.</p> <p>2. Required readings for in-class presentations:</p>	<p>06/16/2018</p> <p>10:30-1:15</p> <p>Make up Session for June 12th</p>

Session Outline	Date
<p>a. Cawley, J., & Meyerhoefer, C. (2012). The medical care costs of obesity: an instrumental variables approach. <i>Journal of health economics</i>, 31(1), 219-230.</p> <p>b. John Mullahy. Econometric Modeling of Health Care Costs and Expenditures: A Survey of Analytical Issues and Related Policy Considerations. <i>Med Care</i> 2009; 47: S104-108.</p> <p>3. Empirical Examples from the MEPS</p> <p>Group 1: Brief Presentation of the methods used in the paper by Cawley & Meyerhoefer (2012) - (5% of the grade; 6-7 slides).</p> <p>Group 2: Brief Presentation of the econometric issues faced by analysts in modeling healthcare costs as discussed by Mullahy (2009) - (5% of the grade; 6-7 slides).</p> <p>N.B. Members of each group will be selected at random during session 2.</p>	
<p>Session 4- The Private Health Insurance Industry</p> <p>1. Lecture- Required reading:</p> <p>a. S&N Ch. 11: skip the sections on “ The Dominant Insurer Pricing Model” (p327); “Guaranteed Renewability in the Individual Health Insurance Market” (p341); HIPPA Act of 1996 (P353-354); start again on p354: “Profitability in the Private Health Insurance”.</p> <p>2. Health Economics in Action Required Reading:</p> <p>a. Sommers, B. D., Gawande, A. A., & Baicker, K. (2017). Health insurance coverage and health—what the recent evidence tells us.</p> <p>3. Empirical Examples from the MEPS</p> <p>N.B. Due Date for Assignment 1: A 2-page document reviewing the literature on the selected topic for class assignment.</p> <p>Guidelines for class assignments are posted on ELMS</p>	06/19/2018
<p>Session 5- Government as Health Insurer –Public Health Insurance</p> <p>1. Lecture- Required reading:</p> <p>a. S&N Ch. 10</p> <p>2. Health Economics in Action Required Reading:</p> <p>a. “Payment Reform In Transition—Scaling ACOs For Success, " Health Affairs Blog, May 11, 2018.DOI: 10.1377/hblog20180507.812014.</p> <p>3. Empirical Examples from the MEPS</p>	06/26/2018
<p>Session 6 - The Physician Services Industry</p>	07/03//2018

Session Outline	Date
<p>1. Lecture- Required reading:</p> <p>a. S&N Ch.12—skip the McGuire Quantity-Setting Model on P376—383; start again with Medical Negligence and Malpractice Insurance (p383) up to pp391.</p> <p>2. Health Economics in Action Required Reading:</p> <p>a. Health Policy Brief: Geographic Variation in Medicare Spending, " <i>Health Affairs</i>, March 6, 2014.</p> <p>3. Empirical Examples from the MEPS</p> <p>MID-TERM EXAMINATION POSTED ON ELMS- Due Date: 07/08/2018</p>	
<p>Session 7 - Hospital Services Industries</p> <p>1. Lecture- Required reading:</p> <p>a. S&N Ch. 13; skip the Type of Product section on p402 to 406; skip the section on “Managed Care Buyers and Hospital Behavior” on p 416.</p> <p>2. Health Economics in Action Required Reading:</p> <p>a. Dafny, L. (2014). Hospital industry consolidation—still more to come?. <i>New England Journal of Medicine</i>, 370(3), 198-199.</p> <p>b. Gaynor, M., & Town, R. (2015). The impact of hospital consolidation—update. Robert Wood Johnson Foundation.</p> <p>3. Empirical Examples from the MEPS</p>	07/10/2018
<p>Session 8 - The Long-term Care Industries</p> <p>1. Lecture- Required reading:</p> <p>a. S&N Chapter 15</p> <p>2. Health Economics in Action Required Reading:</p> <p>a. Porter, M. E. (2010). What is value in health care?. <i>New England Journal of Medicine</i>, 363(26), 2477-2481.</p> <p>b. The Economics of Paying for Value by Beaulieu et al (2016).</p> <p>3. Empirical Examples from the MEPS</p> <p>Due Date for Assignment 2: 2-3 page Analytic Plan for the selected project.</p>	07/17/2018
<p>Session 9- Pharmaceutical Industry</p> <p>1. Lecture - Required Reading:</p>	07/24/2018

Session Outline	Date
<p>a. S&N Chapter 14</p> <p>2. Health Economics in Action Required Reading:</p> <p>a. R&D Costs For Pharmaceutical Companies Do Not Explain Elevated US Drug Prices by Nancy Yu, Zachary Helms, and Peter Bach (2016).</p> <p>b. What's the Story with Drug Prices? The Plot Thickens by Ari B. Friedman, MD, PhD and Janet Weiner, PhD, MPH (2016).</p> <p>3. Empirical Examples from the MEPS</p>	
<p>Session 10- Using Economic Theory to Understand Health Care Markets in the United States & other Developed Countries.</p> <p>1. Lecture-Required Reading:</p> <p>a. "Rethinking Health Care Delivery: What European And United States Health Care Systems Can Learn From One Another, " Health Affairs Blog, December 15, 2017.DOI: 10.1377/hblog20171214.835155.</p> <p>2. Health Economics in Action Required Reading:</p> <p>a. Reducing Low Value Care by Beaudin-Seiler et al (2016).</p> <p>4. Empirical Examples from the MEPS</p>	07/31/2018
<p>Session 11- Review, Empirical Session and Preparation for final presentations.</p>	08/07/2018
<p>Session 12 – FINAL PRESENTATIONS</p> <p>Final Examination will be posted ON ELMS: Due Date 08/19/2018</p>	08/14/2018

University of Maryland and Department of Economics Policies

Course Website: Copies of the course syllabus, your grades, and other relevant links and documents will be posted on the course's ELMS/Canvas website. You can access the site via www.elms.umd.edu. You will need to use your University of Maryland "directory ID" and password.

Email: Email is the primary means of communication outside the classroom, and I will use it to inform you of important announcements. Students are responsible for updating their current email address via <http://www.testudo.umd.edu/apps/saddr/> AND for paying attention to messages I send to the class via ELMS. Failure to check email, errors in forwarding email, and returned email due to "mailbox full" or "user unknown" will not excuse a student from missing announcements or deadlines. I will do my best to respond to email within 36 hours.

Contact Hours: Three credit courses at the University of Maryland require a minimum amount of contact between instructors and students. Our courses' 12 weekly 3-hour meetings only satisfy 80% of the university's contact requirement. The other 20% is satisfied by weekly mandatory and graded online contact. In principle, the contact hours requirement could be satisfied by scheduling 3 additional 150-minute meetings per term, or 6 additional 75-minute meetings, or 10 additional 45-minute meetings. But in practice the contact hours

requirement is satisfied by the weekly online discussions. The weekly online discussions are a more flexible way to ensure that our program's courses in DC provide the same level of student-instructor contact as the traditional 15-week, face-to-face, version of the same course when it is taught on campus in College Park.

Work Load: Mastering the material covered in this course requires a significant amount of work outside of class. Students should expect to spend more time outside of class than in class – typically at least twice as much time. The courses in our DC program are 12-week courses that cover all the same material as a traditional semester-long 3-credit course (15 weeks). The compressed schedule makes it possible to complete our degree in just 15 months if you take 2 courses each term. But the compressed schedule also implies an accelerated pace with an average of 25% more work per week in a given course ($15/12 = 1.25$). The normal full-time load in a master's program is 3 courses per semester, or 6 courses per year. The weekly work load when taking 2 of our courses per term is equivalent to the load from 2.5 "normal" 15-week courses - so $2.5/3.0=83\%$ of a full-time load. Students who take 2 courses per quarter in our program complete 8 courses per year. So over the course of a year, taking 2 courses per quarter in our program is equivalent to 133% of a full-time load ($8/6 = 1.33$).

Academic Integrity: The University of Maryland has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. This Code sets standards applicable to all undergraduate and graduate students, and you are responsible for upholding these standards as you complete assignments and take exams in this course. Please make yourself aware of the consequences of cheating, fabrication, facilitation, and plagiarism. For more information see www.studenthonorcouncil.umd.edu.

Student Conduct: Students are expected to treat each other with respect. Disruptive behavior of any kind will not be tolerated. Students who are unable to show civility to one another or myself will be referred to the Office of Student Conduct. You are expected to adhere to the Code of Student Conduct.

Excused Absences: The University of Maryland's policy on excused absences is posted here: <http://www.president.umd.edu/administration/policies/section-v-student-affairs/v-100g>

Please note:

If you miss any class meetings for any reason, you are still responsible for all material covered during the meeting you missed. It is your responsibility – not the instructor's – to get yourself caught up in the course. Instructors routinely facilitate things by posting lecture notes, etc.

If you need to miss an exam or other graded course requirement because of illness, injury, or some other emergency: Follow doctor's orders and get documentation. Get in touch with the instructor as soon as you're able – preferably prior to missing the exam or deadline. Communicate with the instructor to make up the course requirement as soon as possible. You are entitled to recover before you make up the course requirement, but you are not entitled to extra days to study beyond the time the doctor's note says you're incapacitated. If you are incapacitated for more than a week or so beyond the end of the term, your grade in the course will be an "Incomplete". In such cases you must negotiate a plan with your instructor for completing the course requirements. Once you make up the course requirement the instructor will change your "I" to the appropriate letter grade.

School Closings and Delays: Information regarding official University closing and delays can be found on the campus website and the snow phone line: (301) 405-SNOW (405-7669). Since our program is an evening program in downtown Washington, DC, rather than a day program in College Park, we do not always cancel classes on the same days as the College Park campus. The program director will always announce cancellation information to the program as an announcement on the program's ELMS/Canvas site. This will generally be done by 1:00 p.m. on days when weather or other factors are an issue.

UMD Counseling Center: Sometimes students experience academic, personal and/or emotional distress. The UMD Counseling Center in Shoemaker Hall provides comprehensive support services that promote personal, social, and academic success. The cost of these services is covered by the fees you already paid when you registered for classes, and there is no additional charge if you use the services. Proactively explore the range of services available, including the Counseling Service, Accessibility and Disability Service, Learning Assistance Service, and the Testing Office, all described at <http://www.counseling.umd.edu/>

Students with Disabilities: The University of Maryland does not discriminate based on differences in age, race, ethnicity, sex, religion, disability, sexual orientation, class, political affiliation, or national origin. Reasonable accommodations will be arranged for students with documented disabilities. Students who have an accommodations letter from the Accessibility and Disability Service (ADS) should meet with me during the first few weeks of the semester to discuss and plan for the implementation of your accommodations. If you require reasonable accommodations but have not yet registered with ADS, please contact the Accessibility and Disability Service at 301-314-7682 or adsfrontdesk@umd.edu.

Academic Progress: The graduate school requires that students maintain a GPA of at least 3.0. Students whose cumulative GPA falls below 3.0 will be placed on academic probation by the graduate school. Students on academic probation must ask the program's director to petition the graduate school if they want to remain in the program. The petition must include a plan for getting the student's GPA up to at least 3.0. Students who do not live up to their plan can have their enrollment in the program terminated without having earned the degree. Note: a grade of "B" corresponds to a GPA of 3.0. A grade of "B-" corresponds to a GPA of 2.7.

Building Access: The door to the building at 1400 16th Street is unlocked on weekdays until 7:00 p.m. Students who arrive after 7:00 p.m. or on weekends will find the door locked. The building's security guard is stationed at a desk just inside the door until 11:00 p.m. and will let you in. You can also call the phone on the security guard's desk by dialing (202) 328-5158. If the security guard is off duty or happens to be away from his or her desk when you arrive, you can go around to the other door at 1616 P Street and pick up the black phone to the right of that door. You will be connected to the company that handles security for our building. If you tell them you are with the University of Maryland, they should ask you for a password. When you tell them the password, they will be able to unlock the door for you. You can get the password from the program coordinator, the TA, or the program director.

Laptop Computer Requirement: Completing some of this course's requirements will require a laptop computer (not a notebook or a tablet!) with at least 1 GB of RAM and at least 5 GB of free space available on the hard-drive. We recommend laptops with a 15-inch screen. Screens smaller than 13 inches are probably not practical.

Purchasing Stata: Students in our program must purchase Stata. Stata offers different "flavors" and different lengths of licensing. Price varies according to these two factors. We do not recommend Small Stata since it is too limited for the coursework in our program. Stata/IC is the least expensive and sufficient version for your coursework. With a single-user license, you can install Stata on up to three computers. Description of all the flavors are given here:

<http://www.stata.com/products/which-stata-is-right-for-me/>

You can obtain Stata at discounted rates through the Campus GradPlan, in which University of Maryland, College Park is a participating institution. To benefit from the discounted prices, click on the link below and pick the Stata version you would like to buy.

(Note: Disregard the warning at the top which states that you must be a faculty or staff member. That is not correct.)

<http://www.stata.com/order/new/edu/gradplans/campus-gradplan/>

Through the Campus GradPlan you can buy either an annual (\$89 for Stata/IC) or a perpetual license (\$198 for Stata/IC). The perpetual license does not expire and is the most cost effective option assuming that you will stay in the program for at least 15 months. There are also upgrade discounts provided to perpetual license holders. During the checkout process you will be asked to verify your “@umd.edu” email address.

If you wish to buy a 6-month license (\$45 for Stata/IC), you need to order it as a regular student using the following link:

<https://www.stata.com/order/new/edu/gradplans/student-pricing/>

During the checkout process you will be asked to upload a copy of your student ID or another document as a proof of your enrollment.

Extra Credit and Course Evaluations: Near the end of the term, you will receive an email inviting you to submit a voluntary and anonymous course evaluation. Your feedback on courses will be very helpful in improving the quality of instruction in our program. As an extra incentive for you to evaluate the course, I will offer an extra credit opportunity to the whole class if the course evaluation response rate exceeds 80%. I will not be able to see which students have evaluated the course, but we will all be able to see the overall response rate. If the response rate exceeds 80%, I will offer an extra credit opportunity worth up to 3 course points (~3% of your overall course grade). Partial credit is possible (e.g. 2.5 out of the 3 possible points). I will post the extra credit question after the final exam. To receive the extra credit, students must submit their answer to me via email within 24 hours. Students are expected to work out their own answers to the extra credit question individually. Students who have clearly copied from each other will receive no extra credit.