

Syllabus

Health Economics
94-705/73-228
Heinz College
Carnegie Mellon University
Fall, 2023
Professor Gaynor

1 Basic Information

| | |
|-------------------------|---|
| Class Meetings | T,Th 2:00-3:20pm, HbH 1005 |
| TA Sessions | F 9:30-10:50am, HbH 1005 |
| Instructor | Martin Gaynor HbH 2217 mgaynor@cmu.edu |
| Instructor Office Hours | W 12:30pm-1:30pm, HbH 2217 |
| TA | Zeid El-Kilani zelkilan@andrew.cmu.edu |
| TA Office Hours | T 11:45am-12:45pm, HbH 3004 Th 6pm-7pm, on Zoom |
| Grader | Yue Han |
| Textbooks | Health Economics, 2nd Edition by Frank A. Sloan and Chee-Ruey Hsieh (referred to as SH in the course schedule below) You can buy or rent this from the publisher (there are a # of options (https://mitpress.mit.edu/books/health-economics-second-edition)). You can also rent or purchase it via Amazon, or other sellers. |
| Website | Go to http://canvas.cmu.edu and navigate to course site from there. |

2 Course Description

The purpose of this course is to introduce the student to the methods of health economics and demonstrate how these methods can be applied to analyze issues in health policy and management. This course will teach the student to use economic analysis to understand critical issues in health care and health policy.

We will address issues such as the following:

- What factors best explain the level and rate of growth of U.S. health expenditures?
- Does the historical high rate of growth of U.S. health care expenditures make U.S. firms less competitive in international markets?
- What are patterns of health, and disparities of health, in the US?
- What are likely causes of health disparities, and how might they be addressed?
- What are some of the likely consequences (intended and unintended) of Federal health care reform?
- What are the impacts of health care consolidation?
- What are the impacts of the Covid-19 pandemic? What are policies to deal with various aspects of epidemics/pandemics?
- What is required for the ACA's health insurance exchanges to work well?

Upon successful completion of this course a student will be able to:

- Identify the flow of resources in the U.S. health care system, how purchasers pay for their services, and how providers obtain their revenues.
- Understand the value of health and health care.
- Evaluate how health care resources should be allocated.
- Describe the structure of the health insurance industry, explain the incentives facing insurers, understand the strategies they use to compete and their impacts on social welfare.
- Understand the demand for medical care, and what role providers play in shaping this demand.
- Explain how competition works in health care.

3 Prerequisites

Reasonable proficiency with statistics, graphs, and basic algebra. In statistics you should know probability, hypothesis testing, and regression. A prior course in economics is not a prerequisite for this course. We will cover the basics of demand and supply, elasticity, and imperfect competition at the beginning of the course. See me if you are unsure if you have adequate preparation.

4 Evaluation

The course grade will be based on the following: three equally weighted in-class examinations (25% each) and homework (25%).

Homework assignments are due at the time of the *beginning of the TA session (8:35am)* on the date they are due. This means that they must be uploaded to Gradescope by no later than 8:35am on that day (and have a time stamp of no later than 8:35am). The assignments will be posted on Canvas 1 week before the due date. Late assignments will receive no credit. They may be corrected at the discretion of the grader. The lowest homework score will not count towards the course grade (including late or missed assignments).

All homeworks and exams will be posted on Canvas and will be turned in via Gradescope. Here is a link to instructions on how to use Gradescope, https://help.gradescope.com/article/ccbpppziu9-student-submit-work#submitting_a_pdf.

The Heinz College Dean's guideline for grades in this class is a class average of 3.33–3.42 (B++).

5 Lectures and TA Sessions

All class lectures and TA sessions will be in-person. If circumstances change and classes go to remote mode then we will meet via Zoom.

6 Classroom Expectations Related to Covid-19

In order to attend class meetings in person, all students are expected to abide by all university guidelines <https://www.cmu.edu/coronavirus/students/index.html>, including any timely updates based on the current conditions. In terms of specific classroom expectations, at present masks are recommended, but optional. If there is a requirement to wear a facial covering in effect on campus, students are expected to wear a facial covering throughout class (this means you will not be able to eat or drink while in class).

7 Missing Class

Attendance in class is expected. Students sometime miss class during the semester due to illness, religious holidays, family events, or other reasons. I am not concerned if you miss one or two classes during the course of the semester. If you miss more than one or two classes, please let me know. I suggest you arrange with a fellow student to obtain notes for any lectures you miss. Feel free to contact me or the TAs if you'd like help catching up.

8 Academic Honesty

Academic honesty will be defined and dealt with according to Heinz and CMU protocol. The homework assignments are to be done individually, without consulting or working with anyone else.

9 Use of AI

I expect that all work students submit for this course will be their own. I have carefully designed all assignments and class activities to support your learning. Doing your own work, without human or artificial intelligence assistance, is best for your achievement of the learning objectives in this course. I specifically forbid the use of ChatGPT or any other generative artificial intelligence (AI) tools at any stage of the work process. Deviations from these guidelines will be considered violations of Heinz's and CMU's academic integrity policy and dealt with accordingly. Please ask me if you have questions regarding what is permissible and not for any assignment or exam.

(Adapted from Harvard University, <https://oue.fas.harvard.edu/ai-guidance>)

10 Classroom Decorum

Please do not show up late to class, walk in and out of the classroom during class, or leave early. If you know in advance you will have to leave early, sit near a door to minimize the disruption. Research studies have shown that the use of electronic devices (laptops, tablets, cell phones, etc.) interferes with learning. Therefore I strongly encourage you to stay off your devices while in class (except calculators), with exceptions for those who require them (please let me know).

11 Children in Class

Some of you have child care responsibilities. Please feel free to bring your child with you if doing so facilitates attending class. Children are welcome - we will accommodate them if you bring them.

12 Accommodations for Students with Disabilities

If you have a disability and are registered with the Office of Disability Resources, I encourage you to use their online system to notify me of your accommodations and discuss your needs with me as early in the semester as possible. I will work with you to ensure that accommodations are provided as appropriate. If you suspect that you may have a disability and would benefit from accommodations but are not yet registered with the Office of Disability Resources, I encourage you to contact them at access@andrew.cmu.edu.

13 Statement of Support for Students' Health & Wellbeing

This semester is unlike any other. We are all under a lot of stress and uncertainty at this time. Attending Zoom classes all day can take its toll on our mental health. Make sure to move regularly, eat well, and reach out to your support system or me mgaynor@cmu.edu if you need to. We can all benefit from support in times of stress, and this semester is no exception.

Take care of yourself. Do your best to maintain a healthy lifestyle this semester by eating well, exercising, avoiding drugs and alcohol, getting enough sleep and taking some time to relax. This will help you achieve your goals and cope with stress.

If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, we strongly encourage you to seek support. Counseling and Psychological Services (CaPS) is here to help: call 412-268-2922 and visit <http://www.cmu.edu/counseling/>. Consider reaching out to a friend, faculty or family member you trust for help getting connected to the support that can help.

If you or someone you know is feeling suicidal or in danger of self-harm, call someone immediately, day or night:

CaPS: 412-268-2922 Re:solve Crisis Network: 888-796-8226 If the situation is life threatening, call the police On campus: CMU Police: 412-268-2323 Off campus: 911

14 Statement on Diversity and Inclusivity

My goal is that this class be a productive and positive learning experience for all students, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. It is my intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally or for other students or student groups. In addition, if any of our class meetings conflict with your religious events, please let me know so that we can make arrangements for you.

15 How to Succeed in this Class

There are a number of things that you can do that will help you succeed in this class.

- Attend the lectures at the assigned class time.
- Review the lecture slides and your notes within 24 hours of a lecture.
- Attend the TA sessions.
- Review the week's material from lecture before the TA session, and identify questions you have, so you can ask them during the TA session.
- Work problems. Economics is best learned by working problems. The homework is designed to help you learn the material. In addition, it gives you practice with the kind of problems that will appear on the exams.
- Do not limit yourself to the homework problems. The textbook has questions at the back of every chapter. Feel free to ask me or the TA for suggestions of problems to work. In addition, the text has worked problems in each chapter, and many examples throughout.
- Rather than simply reading the textbook, sit down with a pad of paper and a pen or pencil and write things out as you read/review them in the textbook. You will learn things better and more effectively than if you simply read the material.
- Write down things you don't understand and questions that you have. This will help you focus and make the best use of the TA sessions and office hours.
- Review the answers to homeworks and exams, even if you received a high score. Sit down with paper and pencil and work through them.
- Don't hesitate to ask for help. Go to the TA sessions with questions or things you can't figure out. Come to my office hours or the TA's office hours. Make an appointment to see me or the TA if you need more time or if the office hours don't work for you.

16 Draft Schedule

The class schedule below is tentative and will not be followed exactly.

| Date | Topic | Reading | Assignment |
|---------------|--|--|------------|
| Week 1 | | | |
| 8/29, 8/31 | Introduction | SH, Ch.1 | |
| | Health Care Costs: U.S., International | Martin et al. <i>Health Affairs</i> , v.42, no. 1, 2023 (On Canvas) | |
| | | Organization for Economic Cooperation and Development, Health Statistics, http://www.oecd.org/els/health-systems/health-data.htm | |
| | | Newhouse <i>Journal of Economic Perspectives</i> , v.6, no. 3, 1992 (On Canvas) | |
| 9/1 | TA Session | | |
| Week 2 | | | |
| 9/5,7 | Health | “Health, United States” (National Center for Health Statistics, https://www.cdc.gov/nchs/hus/index.htm) | |

| Date | Topic | Reading | Assignment |
|---------------|--|--|------------|
| | | Organization for Economic Cooperation and Development, Health Statistics, http://www.oecd.org/els/health-systems/health-data.htm | |
| 9/8 | TA Session | Gapminder World, http://bit.ly/2L4s1S0 | |
| Week 3 | | | |
| M 9/11 | Add/Drop Deadline | | |
| 9/12, 14 | Basic Economics Overview | | |
| 9/15 | TA Session | | |
| Week 4 | | | |
| 9/19, 21 | Cost-Benefit/Cost-Effectiveness Analysis | SH, Chs. 14,15 Cutler and McClellan, "Is Technological Change In Medicine Worth It?" (On Canvas) | |
| 9/22 | TA Session | | |
| Week 5 | | | |
| T 9/26 | 1st Exam | | |

| Date | Topic | Reading | Assignment |
|---------------|---|---|------------|
| Th 9/28 | Health Production | SH, Ch. 2 Fuchs, "Tale of Two States," (On Canvas) | |
| 9/29 | TA Session | | |
| Week 6 | | | |
| 10/3, 5 | Demand for Health Care | SH, Ch. 3 | |
| 10/6 | TA Session | | |
| Week 7 | | | |
| 10/10, 12 | Demand for Health Care, cont'd. | | |
| 10/13 | TA Session | | |
| 10/17, 19, 20 | Fall Break – No Class | | |
| Week 8 | | | |
| 10/24, 26 | Demand for Health Insurance, Supply of Health Insurance | SH, Ch. 4 ; SH, Ch. 10 | |
| 10/27 | TA Session | | |
| Week 9 | | | |
| 10/31, 11/2 | Medicare & Medicaid | SH, Ch. 12.3,12.4 | |
| 11/3 | | TA Session | |

| Date | Topic | Reading | Assignment |
|--------------------|--|--|------------|
| Week 10 | | | |
| 11/7 | 2nd Exam | | |
| 11/9 | Market for Physician Services | SH, Ch. 5 | |
| 11/10 | TA Session | | |
| Week 11 | | | |
| 11/14, 16 | Market for Physician Services, cont'd. | SH, Ch. 5 | |
| 11/17 | TA Session | | |
| Week 12 | | | |
| 11/21 | Hospitals | SH, Ch. 6 Gaynor Senate Testimony (on Canvas) | |
| 11/23, 24 | No Class - Thanksgiving Break | | |
| Week 13 | | | |
| 11/28, 30 | Hospitals, cont'd. | SH, Ch. 6 | |
| 12/1 | TA Session | | |
| Week 14 | | | |
| 12/5, 7 | Pharmaceuticals | SH, Ch. 9 | |
| 12/8 | TA Session | | |
| Finals Week | | | |
| 12/11-15 | Exam 3, Date TBA | | |