

# ECON 372: ECONOMICS OF HEALTH CARE MARKETS

## SPRING 2020

PROFESSOR: Ian McCarthy  
CLASS: MW 8:30 – 9:45am  
ROOM: White Hall 103  
OFFICE: Rich 319  
OFFICE HOURS: Th 2:00 – 5:00pm  
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### Course Description

This course examines the industrial organization of health care markets in the U.S., including underlying theory, empirical findings, and related health care policy. We will study insurance markets, informational asymmetries between physicians and patients, and hospital pricing.

*Prerequisites:* Economics 101 (Principles of Microeconomics), Math 111 (Calculus I) also strongly recommended

### Course Objectives

The broad goal of the class is to understand the structure of health care markets in the U.S. The course is designed around three areas, reflecting the different interactions an individual would have when navigating the health care system - first choosing an insurance plan, then visiting a physician, and ultimately receiving hospital care. Our discussion of hospital care is further divided into issues of hospital objective functions, measuring hospital quality, and hospital competition. For each segment, we will develop the underlying theoretical model(s), cover recent empirical studies in the area, and discuss relevant health care policy. My specific goals are that, by the end of this course, you will be able to:

1. Explain the structure of the U.S. health care system, its main components, and its history
2. Model adverse selection in health insurance and examine its effects on health insurance markets
3. Explain the physician agency problem, and use a model of physician agency to examine financial incentives in health care
4. Describe hospital pricing, negotiation with insurers, and explain differences between charges and prices
5. Analyze hospital data in a real-life setting and predict effects of real-life policies

### Text and Other Materials

There are two recommended textbooks for this class. One is an intermediate microeconomics textbook that will cover much of the basic economic theory, and another is a health economics textbook. We will supplement these textbooks with other readings, which will be announced in advance and made available on Canvas.

1. Pindyck, R. and D. Rubinfeld. *Microeconomics*, 9th edition. New York, NY: Pearson, 2018.
2. Sloan, F. and C. Hsieh. *Health Economics*. Cambridge, MA: MIT Press, 2012.

I will use Canvas to distribute any papers or specific readings that aren't available publicly. We also have a class website available at <https://imccart.github.io/Econ-372/>. I use the website as an easier way for you to access course materials, including notes/slides and assignments.

## Course Outline

Below is a preliminary outline of specific topics and assignments throughout the semester. Based on our collective interests, discussions, and timing, these topics may change somewhat.

Introduction		
Week 1	1/13 - 1/17	Spending and quality in U.S. health care Reading: Arrow (1963) Watch <i>Healthcare Triage</i> , “The Healthcare System of the United States” and “Why Are American Health Care Costs So High?”
Module 1: Health Insurance		
Week 2	1/20 - 1/24	Understanding Risk Reading: Pindyk and Rubinfeld, Sections 5.1-5.2
Week 3	1/27 - 1/31	Demand for Health Insurance Reading: Sloan and Hsieh, Sections 4.1-4.7
Week 4	2/3 - 2/7	Adverse Selection Reading: Pindyk and Rubinfel, Section 17.1; Sloan and Hsieh, Sections 4.8-4.10; Einav & Finkelstein (2011)
Week 5	2/10 - 2/14	Health Insurance & Policy Homework 1 Due Wednesday, 2/12
Module 2: Physicians and Treatment Decisions		
Week 6	2/17 - 2/21	Physician agency and fee-for-service Reading: Pindyk and Rubinfeld, Section 17.4; McGuire (2000)
Week 7	2/24 - 2/28	Physician agency and capitated payments Reading: Sloan and Hsieh, Section 5.3; Gruber & Owings (1996); Clemens & Gottlieb (2014) Homework 2 Due Wednesday, 2/26
Week 8	3/2 - 3/6	Agency problems and health care policy Reading: Sloan and Hsieh, Section 17.2 Mid-term Exam on Wednesday, 3/4
Module 3: Hospital Pricing		
Week 9	3/16 - 3/20	Hospital pricing and insurer bargaining Reading: Reinhardt (2006)
Week 10	3/23 - 3/27	Hospital mergers and prices Reading: Gaynor <i>et al.</i> (2015); Gaynor <i>et al.</i> (2017)
Week 11	3/30 - 4/3	Medicare and Medicaid payments Reading: Medicaid 101; Medicare Primer
Week 12	4/6 - 4/10	Pricing in two-price market Reading: Sloan and Hsieh, Section 5.4
Week 13	4/13 - 4/17	Hospital Pay-for-performance Reading: Value Based Purchasing; Hospital Readmission Reduction Program Homework 3 Due Wednesday, 4/15
Week 14	4/22 - 4/24	Capitated payment models Reading: Bundled Payments; Accountable Care Organizations
Week 15	4/27	Case study discussion

# Assignments

## Homework

There will be 3 homework assignments throughout the semester - one for each module. These assignments will consist of short answer questions ranging from calculus-based questions, comprehension questions based on class readings, and some data collection/policy questions. Homework assignments must be turned in at the beginning of the class for which the assignment is due, and late homework will not be accepted. If circumstances prohibit you from returning the assignment in person, you can send me your answers through email as a last resort. Preliminary due dates for these assignments are below, and details of the assignments will be provided in advance on the <https://imccart.github.io/Econ-372/>.

- Wednesday, February 12
- Wednesday, February 26
- Wednesday, April 15

## Case Study

Each of you will analyze data and prepare a report on a practical health economics problem. This semester, the case study concerns hospital pricing and bundled payments. Details of the case study are available on the <https://imccart.github.io/Econ-372/>, and your final report is due on the date our final exam (Wednesday, May 6th). In general, the case study requires that you analyze simulated data, research a real-life policy related to those data, and discuss the implications of these policies on hospital behaviors. We will have some designated class time to work on the data and case study, the times for which will be announced in advance throughout the semester.

The case study is an important part of the class and reflects one of the core objectives — to analyze data in a real-life hospital setting and apply those findings to a real-life policy situation. The case study is intended to be a semester-long project and should be the predominant focus throughout the second half of the course. This is why we don't have a final exam.

## Policy Discussion

Every couple of weeks, we will have a discussion thread on Canvas related to some health care policy or topic covered in class. Your participation in a discussion is worth one point. You must earn 5 points in order to receive full “policy discussion” credit for the semester.

Here are the discussion rules. First, I will post a question over the weekend, and the forum will close by 5:00pm the following Friday. Over that week, you must respond with *an original thought* related to the question. By original, I simply mean that you have to read everyone else's comments so that you don't duplicate a prior point. Each comment should be related to the broad question originally posed as well as the most recent comment in the thread. And of course, comments must be respectful, classroom appropriate, etc. But outside of those basic ground rules, I encourage the comments to be relatively free-flowing. The important part is to have a class-wide discussion.

## Exams

There is one mid-term exam in this class and no final. The mid-term is scheduled for Wednesday, March 4 and will cover all material from Modules 1 and 2. Please notify me immediately if you will need other accommodations or if you already know of an unavoidable scheduling conflict. In general, I expect everyone to take the exam at the scheduled time. Make-up exams are a privilege, not a right, and last minute accommodations will only be made when absolutely necessary.

## Communication

I will predominately use our <https://imccart.github.io/Econ-372/> to distribute materials, so please check the website regularly for new information. For any specific questions you have regarding the class or

health economics more generally, I am happy to meet with you and discuss in person. Unless otherwise announced, I will always be available during my office hours. But if these times do not work for you, just send me an email and we can schedule another time to meet. I will do my best to respond to all emails within 24 hours, but please allow more time over the weekend.

## Evaluation

Final grades will be determined as follows:

Opportunity	Percent
Policy Discussion	5
Homework	45 (15% each)
Case Study	30
Mid-term	20

Letter grades will be assigned at the end of the course based on total score achieved: (A = 100-93%, A- = 92.99-90%, B+ = 89.99-87%, B = 86.99-83%, B- = 82.99-80%, C+ = 79.99-77%, C = 76.99-73%, C- = 72.99-70%, D+ = 69.99-67%, D = 66.99-60%, F = <60%)

## Course Policies

We have a strict no cell phone, no computer policy in class. Please put your phones in airplane mode when you get to class, and I will do the same. The purpose of this policy is twofold: 1) these types of devices are extremely useful but also extremely distracting, and in my experience, I've found that our discussions are much more engaging and informative when we avoid these distractions; and 2) this is really just an issue of mutual respect, both for our time in class as well as your classmates. The more we can be engaged and respectful of one another, the more we'll enjoy the class.

## Academic Integrity and Honor Code

The Emory University Honor Code is taken seriously and governs all work in this course. Details about the Honor Code are available at <http://catalog.college.emory.edu/academic/policies-regulations/honor-code.html>. By taking this course, you affirm that it is a violation of the code to cheat on exams, to plagiarize, to deviate from the instructions about collaboration on work that is submitted for grades, to give false information to a faculty member, and to undertake any other form of academic misconduct. You agree that the teacher is entitled to move you to another seat during examinations, without explanation. You also affirm that if you witness others violating the code you have a duty to report them to the honor council.

## Reading List

- Arrow, Kenneth J. 1963. Uncertainty and the Welfare Economics of Medical Care. *The American Economics Review*, **53**(5).
- Clemens, Jeffrey, & Gottlieb, Joshua D. 2014. Do Physicians' Financial Incentives Affect Medical Treatment and Patient Health? *American Economic Review*, **104**(4), 1320–1349.
- Einav, Liran, & Finkelstein, Amy. 2011. Selection in Insurance Markets: Theory and Empirics in Pictures. *The Journal of Economic Perspectives*, **25**(1), 115–138.
- Gaynor, M, Ho, K, & Town, R. 2015. The Industrial Organization of Health Care Markets. *Journal of Economic Literature*, **47**(2), 235–284.
- Gaynor, M, Mostashari, F, & Ginsburg, P. 2017. *Making health care markets work: Competition policy for health care*. Policy Report. Brookings Institute.
- Gruber, Jonathan, & Owings, Maria. 1996. Physician financial incentives and cesarean section delivery. *The RAND Journal of Economics*, **27**(1), 99–123.
- McGuire, Thomas G. 2000. Physician agency. *Handbook of health economics*, **1**, 461–536.
- Reinhardt, Uwe E. 2006. The pricing of US hospital services: chaos behind a veil of secrecy. *Health Affairs*, **25**(1), 57–69.