Economics 236 is an advanced undergraduate course on the economics of health care provision and payment. In this course we will use the tools of microeconomics to analyze the functioning of different pieces of the health care system. We will draw from the sub-disciplines of information economics, industrial organization, labor economics, public economics, and behavioral economics. The primary goal is to use these tools to develop a critical analysis of the functioning of the health care system as well as of the policies aimed at improving it. We will learn about U.S specific institutional details and policies (most notably the Affordable Care Act), and we will compare them to other important international experiences.

**Prerequisites:** ECON 101, MATH 104 and MATH 114 or 115. Wharton students can satisfy the ECON 101 prerequisite with BEPP 250 HONORS. The regular BEPP 250 course does not count as a substitute for ECON 101.

**Grading:**

The grade of the course will be based on:

- Three midterms (3, 25% each; closed book)
  - MT1: **February 13**
  - MT2: **March 24**
  - MT3: **April 28**

- Homework (3, 25%), due: **February 6, March 17 and April 14**. Notes:
  1. You will be required to work on the homework in groups
  2. Homework 3 consists on a small research project and an in-class presentation on April 14 or the following lectures.
Additional credit may be given based on class attendance and participation in class discussions on some marginal cases.

**No extra credit assignments will be given.**

**Office Hours:**

- Prof. Atal: Monday 3:30-5:30pm. PCPE 602
- Michal: Friday 8:30-9:30am and 3:30-4:30pm PCPE 500
- Zhemin: Wednesday 1:30-3pm PCPE 208

**Course Material:** Canvas is the official channel I will use to make announcements, post slides, homework, readings, etc. You must check Canvas regularly. Documents (including problem sets, practice exams, exams and their solutions), regardless of whether they are physically distributed during this course or are posted on Canvas site, are only for students enrolled in this course. Any re-posting online (or on any course material sharing website) is prohibited.

**Required Textbook:** Health Economics, by Jay Battacharya, Timothy Hyde, and Peter Tu (BHT), Palgrave Macmillan, 2013


**Course Policies**

The Department of Economics maintains a common set of policies that apply to all classes. By taking this class you agree to abide by these policies. Please read these policies carefully, which can be found here:

https://economics.sas.upenn.edu/?q=undergraduate-program/course-information/guidelines/policies

Attendance Policy: It is mandatory to attend the midterms. Please make sure that you schedule your travels, including job interviews, to avoid the exam dates. I will follow the Department’s policies regarding exam attendance. The policy is copied below:

“In cases where attendance at a midterm or a final exam is mandatory, there are only a few valid excuses for missing an exam. They are:
• Three exams scheduled within one calendar day (for final exams ONLY!) This policy of 3 exams does not count for midterm exams given during class time.
• An exam is given outside of the regular class schedule and the timing conflicts with another class in which the student is enrolled.
• Observance of a university-recognized religious holiday.
• UPENN Business that takes you away from campus. Absence from campus on UPENN business includes, for example, athletic events in which you are actively participating. In such cases, you need to make arrangements with your professor ahead of the exam date to take the exam at another time (preferably earlier than the schedule date).
• An illness/health emergency.
• A death in your family.
• Documented disabilities that allow you to take the exam under other circumstances.

Examples of reasons that are not valid for missing an exam are:

• job internships;
• beginning fall or spring break early or returning after a scheduled exam;
• end of semester early flights; take home exams.
• any other reason you would prefer not to be at the university when the exam is scheduled.

_Students are responsible for making sure, at the beginning of the term, that they can attend the exams. Registering for a course means that you certify that you will be present for the exam (unless one of the explicitly stated exceptions above arises.)_

If you are unexpectedly ill at the time of the exam and unable to reach the instructor ahead of time, then you can give notification of your illness as soon as you are able. Do not take an exam if you are ill and then expect to have an opportunity to retake the exam because you were ill the first time and did poorly.

_Students who arrive late to an exam will generally be required to hand in their exam at the same time as other students.”_

_Make-up exams_: There will be no make-up written exams. However, if you have one of the valid excuses listed in the Department’s policy for missing a midterm exam - and appropriately reported in the CAR system – the following exams will be re-weighted accordingly to maintain the 100% total, as follows: If you miss the first midterm, midterm
2 and 3 will be worth 37.5% each. If you miss the second midterm, midterm 3 will be worth 50% of your grade.

A make-up exam for students who miss the last exam will be offered following the Department’s rules.

**Email policy:** You may expect me to respond to emails between 9 and 5 Monday through Friday, and within 48 hours of receiving it. I am happy to use email to respond to fairly simple queries. Please see me in office hours for more involved discussions.

**Electronic devices:** You may use laptops or tablets in this class to consult online readings or to take notes. Common courtesy dictates that you should not use laptops and cell phones for anything other than the topics of our class. Please place your phone on mute before you come to class. **The use of electronic devices during the exams is strictly prohibited.**

**Re-grading:** All re-grade requests for exams must be submitted in writing, with a full explanation of why you think the work was incorrectly graded. The deadline to submit the request will be announced when exams are returned. We will not accept for re-grading any work written in pencil or that appears to have been altered. Except in cases where the grader has added numbers incorrectly, we will only re-grade entire exams. As a consequence, once you submit your work for re-grading, the grade can go either up or down.

**Students with disabilities:** In compliance with Penn policy and equal access laws, I am available to discuss appropriate academic accommodations that you may require as a student with a disability. Requests for academic accommodations need to be made during the first two weeks of the semester, except under unusual circumstances, to arrange reasonable accommodations. Students must register with Student Disabilities Services (SDS) for disability verification and for determination of reasonable academic accommodations.

**Academic integrity:** It is your responsibility to be familiar with the University’s Code of Academic Integrity. Instances of academic dishonesty will be referred to the Office of Student Conduct for adjudication.
Course Outline

I. Demand for Health and Health Care: Model health and health care decisions. Empirical evidence on how economic factors affect these decisions.

II. Demand for Insurance: Expected-utility theory, risk aversion.


IV. Moral Hazard: The downside of insurance. Limiting Moral Hazard.

V. Delivery of Health Care: Physicians and the Hospital Industry: The role of physicians, The hospital industry.

VI. Technology Assessment: The role of technology and innovation on growing costs. Cost-effectiveness and cost-benefit analysis.

VII. Pharmaceutical Markets and Innovation: The workings of the pharmaceutical industry, innovation and the role regulation.

VIII. The American Model and the Affordable Care Act: Overview of the US health care system. The main goals of the Affordable Care Act, early assessment of its functioning, current debate.

IX. International Health Care Systems and Alternative Designs: Contrast the U.S. model with typical health system designs of other countries. The Bismark model. The Beveridge Model.
Reading list

Book Chapters and articles marked with a (*) are required readings

Lecture 1: Demand for Health Care

BHT Chapters 1-2.

(*)Einav, L. and A. Finkelstein. 2017 Moral Hazard in Health Insurance: What We Know and How We Know It, Alfred Marshall Lectures


Lecture 2: The Grossman Model

BHT, Chapter 3

Lecture 3: Demand for Insurance

BHT, Chapter 7

Lecture 4: Adverse Selection I

BHT, Chapter 8

Lecture 5: Adverse Selection II


(*)BHT 9.11

Lecture 6: Adverse Selection II
Lecture 7: Choice Complexities


Lecture 8: Moral Hazard

BHT, Chapter 11

High Deductible Insurance VOX article: http://www.vox.com/2015/10/14/9528441/high-deductible-insurance-kolstad

Lecture 9 & 10: Delivery of Health Care: Physicians and the Hospital Industry

BHT, Chapter 5.3. 5.4, 6


Eliason, Grieco, McDevitt, Roberts (2018): “Strategic Patient Discharge: The Case of
Long-Term Care Hospitals“, forthcoming American Economic Review

**Lecture 11: Technology and the Price of Health Care**

BHT Chapter 13


**Lecture 12: Health Technology Assessment**


**Lecture 13: Pharmaceutical Markets and Innovation I**


BHT, Chapter 12.1-12.4


**Lecture 14: Pharmaceutical Markets and Innovation II**

BHT, Chapter 12.5-12.6

**Lecture 15: The American Model**
BHT, Chapter 18


**Lecture 16: The Affordable Care Act**


(*)Kaiser Family Foundation: Summary of the Affordable Care Act


**Lecture 17: The Affordable Care Act II**

(*)Dugan, Goda and Jackson 2017. The Effect of the Affordable Care Act on Health Insurance Coverage and Labor Market Outcomes. SIEPR WP.

(*)Van Parys, J. 2018. ACA Marketplace Premiums Grew More Rapidly in Areas With Monopoly Insurers Than In Areas With More Competition


**Lecture 18: International Health Care Systems and Alternative Designs I**

BHT Chapter 16

**Lecture 19: International Health Care Systems and Alternative Designs II**

BHT Chapter 17