

Course website: Moodle (tbd)

Instructor: Lucy Xiaolu Wang, Ph.D.

Course time: Mon, 4-6:45 PM

Units: 3

Location: Stockbridge Hall Room 124

Office Hours: Wed, 4-5:15 PM (Zoom)/by appointment

Prerequisites: ECON 203/RES-ECON 202/case-specific exemption

xiaoluwang@umass.edu

COURSE DESCRIPTION

This course introduces students to the theory and methods of health economics and demonstrate how these methods can be applied to understand phenomena and analyze issues in health policy, business, and management. We will explore how scholars and practitioners address empirical questions in health economics and the methods and data that are available. Topics include: COVID-19 and the diffusion and innovation in health care; the demand for health care; health insurance; geographic variation in medical spending; physician labor market; hospital and health systems; pharmaceutical, biotech, and medical devices; drug development, pricing, and FDA regulation; technology assessment; special topics (poll).

LECTURES AND ATTENDANCE POLICY

Lectures will be held in person each Monday (two lectures back-to-back). Regular office hours will be hosted over Zoom; you can also book an appointment over Zoom/in person (Stockbridge Hall 208 B).

You are strongly encouraged to take notes, interact with classmates and guest speakers, and keep a study log to maintain attention and internalize the communicated materials.

Class participation and viewing of posted materials will be monitored, and your level of engagement may be factored into your final grade.

TEXTBOOK

Bhattacharya, Jay, Timothy Hyde, and Peter Tu. *Health Economics*. Macmillan International Higher Education, 2013. [BHT] Available [via Amazon](#).

In addition to the textbooks, supplementary reading suggestions may be provided via Moodle.

REQUIRED ASSIGNMENTS AND GRADING

Grading scale: Final grades will be based on a curve, but the strictest possible grade thresholds will be: A:90%, B:80%, C:70%, and D:60%. Plus and minus grades may be given. Letter grades may be adjusted (curved) upward, but will not be adjusted downward. You will earn your grade for the course based on the following assignments:

- Class participation (15%):
 - Active participation in classroom discussion (5%)
 - Viewing and discussion statistics on course site; completion of surveys (5%)
 - Pre-submission of questions for guest speakers (5%): 2-3 questions, one day in advance

- Assignments (40%):
 - Assignments 1 and 3 are open-ended and will be posted on 9/10 and 9/17, respectively
 - Assignment 1 (due 9/26): Gapminder group video assignment and self-introduction
 - Assignment 2 (due 10/24): this assignment will be posted on 10/6
 - Assignment 3 (due 11/7): essay assignment based on a list of movies/books/podcasts
 - Assignment 4 (due 12/5): this assignment will be posted on 11/16
- Peer grading of open-ended assignments (10%):
 - Using rubric via Moodle, based on timely completion and constructive feedback
 - Peer grading (due 10/3) for assignment 1 group videos
 - Peer grading (due 11/14) for assignment 3 essays
- Final in-class exam (35%):
 - Exam questions will be in similar formats as those in homework assignments
 - All topics discussed in the course will be covered in the final exam

OUTLINE OF COURSE

#	TOPIC DESCRIPTION
1	Why Learning Health Economics? <ul style="list-style-type: none"> • Health economics through data visualization; Introduction and overview of health economics topic areas; brief description of coursework, expectations, and resources
2	COVID-19 and Health Economics <ul style="list-style-type: none"> • COVID-19 and inequality in the access to health care (within the US and globally); funding risky research: the case of mRNA vaccines; economics of the vaccine market
3	The Demand for Health and Health Care <ul style="list-style-type: none"> • Demand for health: the Grossman Model; health as a consumption good, as an input into production, and as a form of stock/capital; demand for health care; two field experiments
4	Health Insurance and the US Health Insurance Model <ul style="list-style-type: none"> • Adverse selection and moral hazard; employer-sponsored health insurance; managed care; Medicare and Medicaid; the Affordable Care Act (ACA) and ACA expansions
5	The Growing Medical Spending and Geographic Variation <ul style="list-style-type: none"> • The rising health care costs: the trends and sources; the medical care CPI; the (over)use of new technologies; geographical variations in medical spending and health outcomes
6	Physicians <ul style="list-style-type: none"> • Physicians at work; physicians at training; physician career decisions and residency; physician agents; physician-induced demand; medical malpractice and tort reforms
7	Hospitals <ul style="list-style-type: none"> • The history of hospitals; the relationship between hospitals and physicians; hospital ownership (for-profit and nonprofit); the relationship between hospital and payers
8	Pharmaceutical, Biotech, and Medical Devices

	<ul style="list-style-type: none"> The life cycle of a drug; patents and price controls; induced innovation; FDA regulations across the markets for small molecule drugs, biologics, and medical devices; policy issues
9	Technology Assessment and Digitization in Health Care
	<ul style="list-style-type: none"> Cost effectiveness analysis; measuring costs and effectiveness; cost-benefit analysis; moral hazard in technology assessment; rationing; estimating the value of life
10	Intellectual Property Rights and Innovation in Health Care
	<ul style="list-style-type: none"> The economics of intellectual property (IP) rights; IP and innovation; empirical evidence: R&D for cancer drugs, gene-level IP (patent vs non-patent IP; public vs private gene IP)
11	The HIV/AIDS Pandemic [special topic]
	<ul style="list-style-type: none"> The history and status quo; treatment development and access; financing and IP issues
12	The US Opioid Crisis [special topic]
	<ul style="list-style-type: none"> The history and status quo; policy interventions and private solutions; COVID complications
13	Cannabis Legalization [special topic]
	<ul style="list-style-type: none"> The history of prohibition and legalization (US & global); demand and supply side reactions
14	Global Drug Diffusion and Innovation [special topic]
	<ul style="list-style-type: none"> International patents; the Medicines Patent Pool; patent licensing and patent litigations; international drug procurement institutions

#	GUEST SPEAKER AND TOPICS (DATES TO BE CONFIRMED)
1	Jordan Epstein (co-founder & CEO, NewCo; advisor, Foresight and All Across Africa) <ul style="list-style-type: none"> Entrepreneurship in health care: perspectives from a serial entrepreneur
2	Andrea Monge, Ph.D. (health economist at the US FDA; former head and neck surgeon) <ul style="list-style-type: none"> Access to health care: perspectives from a physician and public sector economist
3	Osmat Jefferson, Ph.D. (professor at Queensland U of Technology; Director, Lens.org product dev.) <ul style="list-style-type: none"> Life sciences R&D.: through the lens of the largest open patent and scholarly data platform
4	Samantha Zyontz, Ph.D. (intellectual property research fellow, Stanford Law School) <ul style="list-style-type: none"> CRISPR-cas9 gene editing technology: discovery, patent battle, licensing, and adaption

Note: Some topics may be omitted for time. Students are encouraged to refer to the [academic calendar](#) to be aware of critical deadlines throughout the semester. We will poll for special topic coverage.

COURSE POLICIES

Accommodation Statement

The University of Massachusetts Amherst is committed to providing an equal educational opportunity for all students. If you have a documented physical, psychological, or learning disability on file with Disability Services (DS), you may be eligible for reasonable academic accommodations to help you

succeed in this course. If you have a documented disability that requires an accommodation, please notify me within the first two weeks of the semester so that we may make appropriate arrangements.

Academic Honesty Statement

Since the integrity of the academic enterprise of any institution of higher education requires honesty in scholarship and research, academic honesty is required of all students at the University of Massachusetts Amherst. Academic dishonesty is prohibited in all programs of the University. Academic dishonesty includes but is not limited to: cheating, fabrication, plagiarism, and facilitating dishonesty. Appropriate sanctions may be imposed on any student who has committed an act of academic dishonesty. Instructors should take reasonable steps to address academic misconduct. Any person who has reason to believe that a student has committed academic dishonesty should bring such information to the attention of the appropriate course instructor as soon as possible. Instances of academic dishonesty not related to a specific course should be brought to the attention of the appropriate department Head or Chair. Since students are expected to be familiar with this policy and the commonly accepted standards of academic integrity, ignorance of such standards is not normally sufficient evidence of lack of intent (http://www.umass.edu/dean_students/codeofconduct/acadhonesty/).

COVID-19 Statement

For the health and safety of all members of our campus community, students are expected to follow all COVID-related policies on campus. At the start of the Fall 2021 semester, there are two policies in effect that deserve special mention. First, students are required to follow the [COVID-19 Daily Self-checklist](#). Students who are ill must not attend class, and they will be offered reasonable accommodations for missed work. Second, students must follow the masking policy while it remains in effect. Your instructor will remind you to wear a mask that securely covers your mouth and nose, and direct you to a nearby mask station if you do not have one. If you are unwilling to mask, you will be asked to leave the class. If you do not leave the class, the instructor will end the class, and the Dean of Students office will be informed that you have disrupted class and violated the [Guidelines for Classroom Civility and Respect](#). Anyone with a mask exemption must provide prior written notice to the instructor and must maintain at least six feet of distance from faculty and other students at all times.

Finally, I hope you enjoy the class. Please remain in touch and engaged. We will be learning together!