**B8221 section 1**

**Economics of Healthcare and Pharmaceuticals**

**Spring 2020 A term**

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| **Professor Frank Lichtenberg**  318 Uris Hall  Office Phone: 212-854-4408  E-mail: frl1@columbia.edu  Office Hours: By appointment | Teaching Assistant  To be announced |

Communications from professor and teaching assistants about the course will take place through Canvas.

Students should make sure they regularly check for announcements and messaging notifications.

**COURSE DESCRIPTION**

**TOPICS**

* Investment and pricing decisions in health care
* Health insurance
  + Risk aversion and the social benefits of health insurance; optimal insurance coverage
  + Moral hazard and the social costs of health insurance
  + Asymmetric information, adverse selection, and private health insurance market failures; potential remedies
  + Choice among health plans: health insurance benefit design (optimal premium and copayment structure)
  + Empirical evidence about the impact of health insurance on the use of medical care
* Measuring and valuing health
  + Longevity: the “quantity” of life-years
  + The “price” (value) of life-years: How much should we pay to save a “statistical life”?
  + The “quality” of life-years
* Comparative effectiveness, cost effectiveness, and health technology assessment
* Physician behavior
  + Alternative ways of paying doctors and other providers: Retrospective payment, Prospective payment, and Value-based payment
  + Effect of medical malpractice regime on physician behavior
  + Is more information better? The effects of “report cards” on health care providers
* Pharmaceutical industry
  + Intellectual property, innovation and imitation
  + Drug development and pricing decisions
  + Precision medicine and pharmacogenomics
  + Medication adherence

**STUDENT FOCUS**

Students who plan to work in any of the following segments of the health care field should find this course to be valuable:

* pharmaceutical, biotechnology, and medical device companies
* health insurance companies and managed care organizations
* hospitals and physician practices
* financial services focused on health care
* public and not-for-profit organizations focused on health care

**REQUIRED COURSE MATERIALS**

All required and recommended course readings and materials will be posted on Canvas.

**CONNECTION TO THE CORE**

The learning in this course will utilize, build on, and extend concepts covered in the following core courses:

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| ***MANAGERIAL ECONOMICS*** | * Maximization and thinking on the margin * Analyzing complex decision‐making under uncertainty * Pricing with market power * Market segmentation and other advanced pricing strategies * Understanding market competition and equilibrium thinking (in the short run) * Market equilibrium thinking (in the long‐run) and barriers to entry * Strategic interaction among firms |
| ***CORPORATE FINANCE*** | * Risk (health insurance) * Incremental cost/benefit (of medical expenditure) |
| ***GLOBAL ECONOMIC ENVIRONMENT I*** | * GDP (as an incomplete measure of economic prosperity) |

**CLASSROOM NORMS AND EXPECTATIONS**

Students are expected to adhere to CBS Core Culture in this class by being Present, Prepared, and Participating. Students should be prepared to answer multiple-choice questions posed in class via Poll Everywhere on their smartphones. No other use of phones, laptops, or other electronic devices in class is permitted.

**METHOD OF EVALUATION**

The course will be taught using a combination of case discussions and lectures, including a few guest lectures. Students will be evaluated on the basis of class participation (15%), two problem sets (25%), and an in-class final exam (60%) administered by the Office of Student Affairs during the exam period.

**ASSIGNMENTS**

Problem Set 1 will be due towards the end of week 3, and Problem Set 2 will be due at the last class session. Problem sets are of type B2 (see below).

All of your assignment submissions are subject to the [CBS Honor Code](http://www8.gsb.columbia.edu/honor/definitions). Violations of the CBS Honor Code may lead to failing the assignment, failing the course, suspension, and/or dismissal. In order to avoid ambiguity that may lead to unintentional violations of the Honor Code, assignment description types have been standardized and specified below.

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| --- | --- | --- | --- | --- | --- |
| **Type** | **Designation** | **Grade** | **Preparation of**  **submission** | **Discussion of Submission\*** | **Discussion of**  **Concepts\*\*** |
| A | Group Work | Same grade for all group members | By the group | Permitted to discuss (within group) | Permitted |
| B1 | Individual w/ Discussions of Concepts and Submission | Individual grade | Individual preparation | Permitted to discuss; sharing solutions or submission files is not allowed | Permitted |
| **B2** | **Individual w/ Discussions of Concepts Only** | **Individual grade** | **Individual preparation** | **Not permitted to share/discuss solutions or submission** | **Permitted** |
| C | Individual | Individual grade | Individual preparation | Not permitted to share/discuss solutions or submission | Not permitted\*\*\* |

The designated group can be either an assigned study group or a self-selected one.

**\*** Submission means any work and/or output pertaining to the specific assignment. If an assignment submission contains a calculation or decision related to a specific set of data and setting, discussing the details how to make this calculation or decision with regard the data/setting is to discuss the submission. Providing another student with a draft of the calculation or decision is sharing the submission.

\*\* Concepts mean any ideas, examples, readings, or other related materials from the class/course. Conceptual discussion should not be based on a specific set of data or setting related to a calculation or decision required in the assignment, but could be based on other related examples, preferably those from class/course materials.

\*\*\* As no conceptual discussion is permitted, Type C is akin to a take-home exam.

**ATTENDANCE POLICY**

Students are required to attend each class. Students should reach out to the instructor or TA regarding excused absences (for religious observances; personal, medical, and family emergencies; military service; court appearances such as jury duty). Unexcused absences will affect your course grade.

NOTE: The following is applicable for Core Courses and for any electives with OSA-administered exams:

* Students that miss the exam for an **excused** reason but are unable to take the exam within the stated make-up period will receive a **zero for the final exam grade**
* Students that miss the exam without notifying OSA (**unexcused**), will receive an **F for the course grade.**

This course will use Poll Everywhere as a tool to increase in-class student engagement. Poll Everywhere may also be used to confirm student attendance and participation records.

If a student is absent from class and is allowed to attend a different cluster’s class meeting, it is at the discretion of the faculty member to count responses to any polls presented during this time as attendance or participation.

Responding to a poll when not present in the classroom is a violation of the Honor Code.

**INCLUSION, ACCOMMODATIONS, AND SUPPORT FOR STUDENTS**

At Columbia Business School, we believe that diversity strengthens any community or business model and brings it greater success. Columbia Business School is committed to providing all students with the equal opportunity to thrive in the classroom by providing a learning, living, and working environment free from discrimination, harassment, and bias on the basis of gender, sexual orientation, race, ethnicity, socioeconomic status, or ability.

Columbia Business School will make reasonable accommodations for persons with documented disabilities. Students are encouraged to contact the Columbia University’s Office of Disability Services for information about registration. Students seeking accommodation in the classroom may obtain information on the services offered by Columbia University’s Office of Disability Services online at [www.health.columbia.edu/docs/services/ods/index.html](http://www.health.columbia.edu/docs/services/ods/index.html) or by contacting (212) 854-2388.

Columbia Business School is committed to maintaining a safe environment for students, staff and faculty. Because of this commitment and because of federal and state regulations, we must advise you that if you tell any of your instructors about sexual harassment or gender-based misconduct involving a member of the campus community, your instructor is required to report this information to a Title IX Coordinator. They will treat this information as private, but will need to follow up with you and possibly look into the matter. Counseling and Psychological Services, the Office of the University Chaplain, and the Ombuds Office for Gender-Based Misconduct are confidential resources available for students, staff and faculty. “Gender-based misconduct” includes sexual assault, stalking, sexual harassment, dating violence, domestic violence, sexual exploitation, and gender-based harassment. For more information, see<http://sexualrespect.columbia.edu/gender-based-misconduct-policy-students>.