

Health Economics

Economics 4510

Spring 2010

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Classes: IC 109. Tuesday and Thursday, 12:05-1:20PM
Office Hrs: Thursday 2:45-3:45PM and by appointment. Also, we can talk briefly after class.

It is your responsibility to check your email for T-Square announcements and be up to date with any information posted on the class T-Square site. Create a folder in your email inbox with the Health Econ 4510 name and store all the T-Square announcements there.

Some Important Dates For Spring 2010 Semester (see Oscar for details)

January 12: First class.
January 15: Last day to register and/or make schedule changes for Spring Semester.
March 5: Last day to drop individual courses with a grade of "W".
March 22-26: Spring break.
April 5: Graduate Thesis deadline at Noon.
April 29: Last class.

COURSE OVERVIEW

The objective of this course will be to gain an understanding of the structure and working of healthcare markets and gain insights into the institutions and economic policy. As part of the course we will study the markets for healthcare professionals such as doctors, surgeons and nurses, the structure and working of the markets for pharmaceuticals, hospitals and medical insurance as well as the role played by technological change. The course will cover a variety of current issues of significance to the individuals, industry, state and national governments. As things unfold, you will also see how various aspects of the course tie in to the current debate on healthcare reform. The course will be fairly intensive and challenging. Come prepared to work hard. The rewards, in terms of knowledge added, will hopefully be significant.

Background materials

I will assume that you have full understanding of:

(1) Basic economics. I will assume that you are familiar with the materials in Economics 2100 (Survey class) or Economics 2106 (Microeconomics). I will NOT review these materials in this class. If you are not familiar with these materials, please see any Principles of Economics textbook and go over the chapters on Microeconomics. These include topics such as: structure of demand; various elasticity concepts such as own-price elasticity and cross-price elasticity, as well as how to calculate these numbers; firms' cost functions and all the related concepts such as

total costs, average costs, and marginal costs; profit maximization; production functions; welfare analysis – consumer surplus, producer surplus, and total welfare; perfectly competitive markets; and monopoly markets. As I noted above, I will assume you know all this and proceed with the course. I would highly recommend that you familiarize yourself with these basic materials during the first week of classes.

(2) Basic calculus and algebra. We will use basic differential calculus and algebra during the course. This will be required to gain an understanding of profit maximization by various players in the healthcare markets (hospitals, insurance firms, pharmaceutical firms, and doctors) as well as issues related to strategic behavior by hospitals, insurers, doctors and pharmaceuticals companies. You should be able to take first and second derivatives and compute equilibrium prices, quantities, among other variables. Basic algebra will be needed to make calculations resulting from the above. For example, you should be able to solve systems of two-equations in two-unknowns and find solutions. You could look through a college help book on calculus (e.g., published by Harcourt Brace College Series, or any other) if needed. I will assume you know this, and I will spend NO time on this in class. You are expected to take care of the calculus and algebra basics yourself.

Specific Learning Objectives

Knowledge

- Understanding how individuals make choices regarding purchase of insurance, level and quality of healthcare, attainment of health status
- Understanding how firms in various healthcare markets (e.g., pharmaceuticals, hospitals, physicians) make decisions on prices, product and service quality, R&D expenditures, and other key decision variables.
- Working knowledge of the models of oligopolistic behavior and outcomes as applied to insurance, pharmaceutical and hospital markets
- Working knowledge of the role played by medical associations (e.g., American Medical Association) in shaping healthcare markets
- Working knowledge of the effects of Federal antitrust enforcement in controlling anticompetitive behavior in markets for pharmaceuticals, hospitals and physicians
- Understanding the effects of Federal and State Governmental healthcare policies and regulations on individual decisions and choices
- Understanding the effects of Federal and State Governmental healthcare policies and regulations on firms' decisions related to product and service quantity, quality and innovation
- Understanding cross-country metrics on health status and incidence of disease
- Understanding cross-country studies on efficiency and effectiveness of healthcare systems

Skills

- Graphical and mathematical analysis
- Use of algebra and calculus to solve problems and models
- Problem solving methods as applied to individuals' and firms' decision-making in various healthcare markets (e.g., insurance, pharmaceuticals, hospitals, among others)

- Ability to apply various analytical and quantitative tools to a wide range of health economics and health policy concepts and ideas
- Ability to analytically and quantitatively analyze current affairs related to healthcare policies, choices and regulatory actions by Federal and State Governments
- Critical thinking and logic

Perspectives

- Understanding the extent of interdependency between individuals, firms and Governments in decision-making related to healthcare markets
- Understanding of the functioning of the healthcare industry as a whole as well as its sub-components (e.g., pharmaceuticals, insurance, physicians, among others)
- Appreciation for the costs and benefits of alternative decision-making choices by firms and individuals in healthcare markets
- Understanding the effects of Governmental intervention in healthcare markets

TEXTBOOK

Health Economics and Policy, by James W. Henderson, **3rd edition**, 2005.

Used copies of the text should be available. Check online. Be sure to get the **THIRD** edition. Ordering it online is OK as we will not do any textbook materials during the first two weeks.

TESTS, CASE-STUDY AND COURSE GRADE

1. Tests

There will be **three tests** during the semester. Each test will contain about 2 short-answer questions and about 10 multiple-choice questions. **All tests are cumulative.** Test scores will be available about 12 days after the test.

Test 1:	55 points. Tuesday, February 16.
Test 2:	45 points. Tuesday, March 16.
Test 3:	45 points. Tuesday, April 20.

2. Case Study

The case-study will be worth **55 points**. I will discuss the format in class during the first week. Specific details about the case study will be provided by end January. Details for now

- (1) I will announce dates for the submission of the intermediate versions of the study.
- (2) Presentations of your case study will be on April 27 and 29. I will circulate the schedule later.
- (3) The final version is due by 12 noon on Tuesday, May 4, 2010. I will provide comments when you submit your intermediate drafts and during your presentations. You will have to address them and turn in your final version on May 4.

3. Final

There is **NO** final exam. This is because the final version of the case-study will be due that week.

4. Makeup Test

NO makeups will be administered.

The only exceptions are:

1. If you are ill. The accompanying doctor's note must say that you **cannot (or could not)** take the test;
2. For GT approved official activities provided you produce the official documentation.

Makeup tests create all kinds of fairness and other problems. Since I would exhaust the set of reasonable questions for the regularly scheduled test, writing makeups inevitably implies me searching for different questions to ask which end up being more difficult. For fairness, the policy of **NO makeups will be adhered to without exception irrespective of the student's personal situation.**

5. Course Grade

Your course letter grade will be based on the distribution of numerical scores from the three tests and case study. I will compute the mean and standard deviation of your scores and use these to assign letter grades A, B, C, etc. The cutoff for an A will be the class mean plus one-half standard deviation. The cutoff for an C will be the class mean minus one-half standard deviation. B will be between these cutoffs. Cutoff for D will be mean minus 1.5-standard deviation. (Purple, as opposed to green, Martians gave me this grading scheme.) For any given test this distribution will not mean much, but will be relevant after taking the cumulative of all the tests and case study. For example, if the mean score=78 and s.d.=12, then $A \geq 84$, $72 \leq B < 84$, $60 \leq C < 72$, and $D < 60$.

Important: To get a “Satisfactory” or “Pass” grade in this course, you will need to maintain at least a C. A grade of D is an Unsatisfactory or Fail. There will be no exceptions to this rule.

TEXTBOOK CHAPTERS

Notes:

1. Lectures: For some topics I will follow the textbook closely. For other topics I will add material from other sources. And for some of the material, I will provide an alternative way of interpreting the model and results. All of this implies that you need to pay careful attention to class lectures. If you miss class, please ask other students regarding the material that was a covered. This is your responsibility.
2. Most chapters contain a lot of text based details. I will only briefly cover these in class and you are expected to read the details yourself.
3. The chapters for which the Appendix is relevant are indicated.
4. For some of the chapters we will not cover all the material. This will be announced in class.

* Before starting Chapter 1, we will go over firms' profit maximization under alternative market structures: highly competitive; monopoly; oligopoly with price-setting behavior; oligopoly with quantity setting behavior. In this segment, we will use a fair amount of algebra and some calculus to examine firms' decision-making in the markets for pharmaceuticals, physicians, hospitals and insurance providers. **This material will be class notes only.**

Chapter 1: U.S. Medical Care
Chapter 2: Using Economics to Study Health Issues + Appendix 2A and 2B
Chapter 3: Analyzing Medical Care Markets + Appendix 3A and 3B
Chapter 5: Demand for Health and Medical Care
Chapter 6: The Market for Health Insurance
Chapter 7: Managed Care
Chapter 8: The Market for Health Care Professionals
Chapter 9: The Market for Hospital Services
Chapter 13: Technology in Medicine

CLASS LECTURES

This course is structured somewhat differently. I will cover only the key aspects from the textbook chapters and supplementary readings in class. I will expect you to read the rest of the details yourself and, based on this, ask you questions during the next class.

Since I am mentioning this at the beginning, please do not mention later that I did not go over all the details and materials in class. I expect you to read the additional details, and come prepared.

I will often call on students by name and have them answer specific questions. This implies that you will have to have read the materials in detail.

Given the structure, you should be prepared to read the materials concurrently, and sometimes before we do them in class.

CASE STUDY

After our class discussions, I will provide all the details.

Some details for now:

1. The study will be done in groups with 2-3 students per case-study. (We will discuss this in class in detail.)
2. I will announce dates for the submission of the intermediate versions of the study.
3. Presentations of your case study will be on April 27 and 29. I will circulate the schedule later. Class attendance is **mandatory** for all students during the presentation days; failure to attend without supporting documents to justify your absence (see rules for makeup) will lead to a **50% deduction** from your assignment points (i.e., a **loss of 27.5 points**).

4. The final version is due by 12 noon on Tuesday, May 4, 2010. Before and during your presentations, I will provide comments. You will need to address them and turn in your final version on May 4.

Most of the work on the case-study will be put in after around mid-February after we have discussed this in class and I have distributed the details about topics, intermediate drafts and presentations.

SUPPLEMENTARY READINGS

I will distribute readings via TSqr as the semester progresses. Some of these will be relevant for the class/test materials while others for your case-study. Some good sources of supplementary readings related to debates on healthcare are the *New York Times* (esp, see their section on Health; you can register online for free) and the *Wall Street Journal* (this is a paid service but if you have access to the print edition, you can look it up).

CLASS ATTENDANCE

I will periodically take class attendance. If your attendance falls below 66% in my sample (that is, on average you miss one in three classes), **I will deduct 15% from your cumulative class score** (from the three tests and the case study). Absence due to medical reasons will require a letter from your attending physician: the doctor's note must say that you **cannot (or could not)** attend class. This rule is for real and strict. I will put in a lot of time and effort into creating a class that is interesting. **It is imperative that you make every effort to attend class.** If you cannot commit to attending and actively participating, this is not a class you should enroll in.

Attendance is mandatory during the scheduled class presentation days of the assignment – April 27 and 29.

EMAIL POLICY

In general, it will be very difficult for me to correspond via email. There are too many emails for me to answer on any given day, and I am typically days behind on answering them. Please avoid sending emails unless it is an emergency. To be specific, I will **not** answer emails related to course materials, test related questions, etc. I will send out announcements via TSqr regarding tests, materials, etc, and these will take care of the details. If you need to discuss specific issues, please see me during office hours, or set up an appointment to see me, or, if it is a quick question, talk to me right after class; these provide ample opportunity for you ask me questions.