# Health Economics Economics 4510/6510 Fall 2015

Professor:Dr. Vivek GhosalOffice/Tel:224 Old CE Bldg/ 404-894-4910Classes:Tuesday and Thursday, 1:35-2:50PM. Molecular Sciences & Engr., 1222Office Hours:Tuesdays 3:30-4:30PM (starting Aug. 26) and by appointment.

This is a preliminary syllabus. I may make some changes, including to the list of textbook chapters. All changes will be discussed in class and posted on T-Sqr. 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 Fall 2015' name and store all the T-Square announcements there. I will be sending out quite a few announcements and details via T-Square.

## **CELL PHONES**

Please put away your phone during class. You may not text, send emails or talk on the phone during class. This is incredibly distracting to me as well as the other students in class. Please mute your phone volume during class so that it does not ring. If I see a student texting or sending emails using phone, I will immediately ask the student to leave the class for the rest of the class.

Since I am mentioning this up front, you must respect my decision to ask you to leave the class. Like you, I use my phone extensively. But during the 75 minutes of class, both you and I need separation from the phone.

## **COURSE OVERVIEW AND OBJECTIVES**

1. Gain an understanding of the structure and working of healthcare markets.

2. Gain insights into the institutions and economic policy related to healthcare.

3. Study the markets for healthcare professionals such as physicians and nurses, the structure and working of the markets for pharmaceuticals, hospitals and medical insurance.

4. Gain an understanding of the role played by technological change.

5. Cover a range of issues of significance to the individuals, industry, state and national governments.

6. Gain an understanding of the current debate on healthcare reform, and the Affordable Care Act.

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:

<u>1. Basic economics.</u> 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. To refresh the concepts, please see any Principles of Economics textbook and go over the chapters on Microeconomics. The required textbook also contains materials that will help you refresh the concepts related to individual and firm decision-making. 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.

<u>2. Basic calculus and algebra.</u> 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. 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. We will do several examples in class to spell out the details.

## TEXTBOOK

Health Economics and Policy, by James W. Henderson, 4th Edition.

Used copies of the text are available. Check online. Ordering it online is OK as we will not do any textbook materials during the first two weeks. [This book in its newest edition  $(6^{th})$  is really expensive, without a meaningful increase/improvement in contents. Hence I will stick to the  $4^{th}$  edition.]

\* The textbook materials will be supplemented with several articles, newspaper clippings, etc., to highlight specific issues. I will announce and post them on TSqr as we make progress. These supplementary materials will be relevant for the tests.

## TESTS, RESEARCH PAPER AND COURSE GRADE

## 1. Tests

There will be **three tests** during the semester. Each test will contain approximately 2-3 short-answer questions and between 6-8 multiple-choice questions. <u>All tests will be cumulative.</u> Test scores will be available <u>about 10-12 days after the test</u>.

Test 1: Tuesday, September 15. 45 points. Test 2: Tuesday, October 20. 45 points. Test 3: Thursday, November 19. 45 points. <u>NOTE:</u> I may make some changes to the test dates. If I do, I will announce it well before the test date. Since the tests are during class hours, they should pose no conflicts with other classes.

## 2. Research Paper

The paper will be worth <u>65 points</u>. Each research paper will be a collaborative effort, with teams of 2-3 students. Single-student papers are not allowed, and maximum team size is three students. I will discuss the format in class during the first week. Additional details will be discussed in class as we make progress.

1. I will announce dates for the submission of the intermediate versions of the research paper. I will provide feedback comments when you submit your intermediate drafts.

2. The final version should be emailed to me by 10AM on Monday, December 7. You can submit it earlier if you're done. There will be <u>no extension</u> of the final paper deadline. You know the final deadline at the start of the term, so no reason not to submit it on time on December  $7^{\text{th}}$ .

## 3. Final

There is **NO** final exam. This is because the final version of the research paper will be due that week.

## 4. Makeup Test

## NO makeups will be administered.

The **ONLY** exceptions are:

1. If you are ill. A doctor's note is required. And not just that you visited a doctor. The accompanying doctor's note must say that you <u>cannot (or could not)</u> take the test on the scheduled day;

2. For GT approved official activities provided you produce the official GT 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 typically end up being more difficult/unreasonable. For fairness, the policy of <u>NO makeups will be adhered to without exception irrespective of the student's personal situation</u>.

#### 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 a 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. For any given test this distribution will not mean much, but will be relevant after taking the cumulative of all the tests and research paper. For example, if the mean score=78 and s.d.=12, then A≥84, 72≤B<84, 60≤C<72, and D<60.

<u>Important:</u> For those taking S/U option, to get a "Satisfactory" or "Pass" grade in this course you will need to maintain at least a C. A grade of D is 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.

\* Before starting textbook 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**.

2B

## **CLASS LECTURES**

I will cover only the key aspects from the textbook chapters and supplementary readings in class. I 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, I expect you to read the additional details and come prepared. Given the structure, you should be prepared to read the materials concurrently, and sometimes before we do them in class.

## **RESEARCH PAPER**

After our class discussions, I will provide more details.

Some details for now:

1. The study will be done in groups with 2-3 students per paper.

2. I will announce dates for the submission of the intermediate versions of the paper. These will be designed to show clear progress during the semester. I will provide comments on intermediate drafts. You will need to address them, incorporate comments in the next intermediate draft.

3. I "may" schedule short presentations of the final versions of the research papers. I will let you know this a bit later. If presentations are scheduled, they will be during the week before the finals. Class attendance will be **mandatory** for all students during the presentation days. Failure to attend without supporting documents to justify your absence (same as rules for makeup) will lead to a **25% deduction** from your assignment (i.e., **loss of 16.25 points on the paper for the person absent from the presentations**).

4. The final version is due by 10AM on Monday, December 7<sup>th</sup>.

## SUPPLEMENTARY READINGS

I will distribute selected supplementary readings via TSqr as the semester progresses. Some of these will be relevant for the class/test materials while others for your research paper. A useful source of

supplementary readings related to debates on healthcare is the *New York Times* (see their section on Health; you can register online for free for a limited number of articles per month).

## 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 take attendance), **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 <u>cannot (or could not)</u> attend class. This rule is for real and strict. I will put in 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.

## EMAIL POLICY

In general, it will be very difficult for me to correspond via email. Between the two classes I am teaching this semester, I have close to 225 students. Please avoid sending emails unless it is a necessity. To be specific, I will <u>not</u> 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. In combination, these provide ample opportunity for you ask me questions.