Econ 3451: Health Economics

(Mondays, Wednesdays, and Fridays, 11:15-12:05 p.m., OAK 110)

Instructor:

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Spring 2014 Office Hours: Monday and Wednesday 10:10-11:10.

Prerequisites: Intermediate Microeconomics (required)

Course Description:

What explains differences in health between different people and communities? Is health an individual's decision or is it something that happens to them? If health is a decision, what role does one's economic environment play in shaping this decision? Can society improve health through improving the socio-economic status of the less fortunate; similarly, can better health decisions be incentivized through policy? Throughout this semester we will attempt to answer all these questions and more. This course demonstrates how basic economic principles, methodologies and theories can be used to think about issues in health and health care. The focus of the majority of the course will be on the economics of health behavior and related public health issues. Specifically, we will attempt to understand such fascinating consumer behaviors as drinking, smoking, drug-use, risky sexual activity, the relationship between inequality and health, pregnancy behavior (and related birth outcomes), and how insurance influences health and health decisions. Students will develop a set of economic tools to evaluate the problems and policies associated with these topics. We will construct a framework to help us understand why health is different for different people/groups and the implications this has for labor markets and enlightened social policy. Often the conversation will come back to: "What is the justification and role (if any) for government involvement in health?" The course will end with an analysis of the structure, and performance of the markets for physician and hospital services.

Course Objectives:

The course objective is to: (1) provide you with the tools and analytical capabilities needed to engage in knowledgeable discussions on issues of health economics; (2) provide you with various theoretical concepts that can be used to better understand health economics and health policy; and (3) Give you a broad understanding of the empirical progress researchers have made in answering the major questions in the economics of health behavior and public health.

Required Textbook:

Health Economics: Theories, Insights, and Industry Studies, Santerre and Neun, I will be using the sixth edition, but an older edition is cheaper and completely fine to use.

Grading Policy:

Your grade will consist of one midterm exam, a final exam, homework assignments, and a project. Each component of your grade is given the following weights:

- 20% Homework and Participation.
- 20% midterm exam.
- 20% class project
- 40% a comprehensive final

Homework

There will be around 6-7 homework assignments given throughout the course. I will grade homework based on the student having made a reasonable attempt to complete the homework. As long as a reasonable attempt is made, you will get full credit. However, the homework is the basis of the exams, so I highly recommend you do them carefully and review the answer key.

UNLESS. YOU MAKE SPECIAL ARRANGEMENTS WITH ME, HOMEWORK WILL ONLY BE COLLECTED DURING CLASS. I will typically accept the homework if you get it to me later that day (assuming you have a genuine reason for not being in class and/or not having the homework with you in class). If homework is turned in very late, or if you do not have a reason for missing class, it will not be accepted.

Class Participation

Students are expected to participate in class and to have done the required reading. There will be regular class activities and discussions (un-announced). Students will break into groups and be given full credit as long as they are present and involve themselves. At least one of these activities will center on the student presentations at the end of the year. At the end of the course your homework and participation grade will be calculated as:

$$HW \ and \ Participation = \frac{Homeworks\ turned\ in\ + activities\ participated\ in}{Total\ number\ of\ homeworks\ and\ Activities}$$

I will drop the lowest homework grade or one of the activity participation when calculating your final score. Emergencies happen and class is sometimes missed. This is why I drop the lowest Homework.

Empirical Project: Data Work

This assignment is designed to give you some hands-on experience working with empirical methods. You will pair up with another student in class to develop a *model* that relates a *particular dependent variable* of your choice (hospital expenditures, number of physicians, nursing wages, percent uninsured, etc.) to one or more *independent (or "explanatory) variables* that you believe might "explain" differences in the dependent variable across the 50 states at a point in time. This *cross-sectional* data for states is readily available at a variety of Internet sites, such as: www.kff.org/statedata/, www.cdc.gov/nchs/fastats/, www.census.gov,

www.statemaster.com/index.php, www.bea.gov, www.census.gov/compendia/statab/,

<u>www.usa.gov/Topics/Reference-Shelf/Data.shtml</u>, www.econdata.net, http://einstein.library.emory.edu/econlinks.html, http://research.stlouisfed.org/fred2/categories.

You and your partner will use statistical methods to analyse the data (descriptive statistics, scatter-plots, correlation, and linear regression analysis). These statistical techniques can be easily done with Excel or other statistical software (SPSS, SAS, Stata, etc); I'll show you how in class. These will be individual projects. You certainly may discuss your project with classmates, but the work you submit must be your own. On **Friday**, *March 11th*, you should submit a *1-page research proposal* that briefly describes what you intend to do: the *relationship* you plan to study; the *specific variables* you will use; *specific data sources*; and (briefly) *why knowing more about this relationship might be useful*. The proposal will not be graded, but you *must* submit one to receive a grade on the empirical project. The last two weeks of class will be devoted to presenting and sharing your project to the class as well as turning in a *5 page written report*. Your written report and presentation will together be 20% of your final grade. We'll talk more in class about the substance and format of the final report. Your grade on the final report/presentation will be based on content and execution (structure, coherence, grammar, spelling, etc.).

Make Up Exams

No makeup or early exams will be given except in the case of a documented emergency. All rescheduled exams will need to be made up within a week of the original test. If an exam is missed and not made up then I will assign the weight to the final. If you need special accommodations for testing contact me via email as soon as possible.

The final grade and exams will be curved to fit the following scale:

Grade	Score
Α	93-100
A-	90-92
B+	87-89
В	80-86
B-	78-79
C+	68-77
С	66-67
C-	63-65
D+	61-62
D	57-60

Important Dates:

Midterm Exam: Friday, March 4th Project Proposal: Friday, March 11th

Class Project Due (written portion): Monday April 18th.

Class Presentations: April 18th to April 29th (the last two weeks of class). Final Exam (preliminary date/time):, May 2nd to May 7th (Not yet Scheduled),

Academic Honesty Statement:

Violations of the University of Connecticut Academic Honor Code will not be tolerated. Consult the student handbook for some possible violations of the Academic honesty system. *Any students found engaged in academic dishonesty will, at a minimum, receive an F for the course.*All students should familiarize themselves with the rules and regulations found in the student code (see http://www.dos.uconn.edu/student_code.html)

Course Outline:

The material will be (generally) presented in the order listed below. This is meant as a rough guide. We may cover material faster or slower (or add a topic) depending on how things go.

- 1. Societies Production of Health: the long term
 - a. Theoretical tool: health production functions.
 - b. Empirical tool: linear regression.
 - c. Homework: Production functions in theory
 - d. Homework: Estimating Production functions using multiple regression analysis.
- 2. Societies Production of Health: Contemporary United States
 - a. Policy Issue: Is the United States on the Flat of the Production Function?
- 3. The individual's production of Health: The Grossman model.
 - a. Theoretical Tool: Utility Maximization
 - b. Theoretical Tool: The Grossman Model.
- 4. Empirical Investigations of the Grossman Module.
 - a. Empirical Tool: Randomized Experiments on health behavior.
 - b. Empirical Tool: Quasi experiments / Difference in differences.
 - c. Homework: Estimating Production functions revisited, estimating the individual's production of health
 - d. Policy Issue: Can Income Transfers be used to Improve Health.
 - e. Empirical Tool: Regression Discontinuity Design
 - f. Policy Issue: Can Subsidizing Education Improve Health?
- 5. Government Control of Health and Medical Care, Externalities and Public goods
 - a. Theoretical Tool: Externalities
 - b. Theoretical Tool: Government Regulation and the Labor Market
 - c. How should the Government Value Life?
- 6. The Economics of Risky Health Behaviors: Drinking, Drugs, Obesity, and Promiscuous Sex (Also Eating).
 - a. Theoretical Tool: Expected Utility and Risk Aversion.
 - b. Theoretical Tool: extension of Grossman to risk taking Rational Addiction and Hyperbolic Discounting.
 - c. Policy Issue: Should we Lower the Minimum Drinking Age In the US to 18?

- 7. Demand for Insurance: Risk Aversion
 - a. Theoretical tool: risk aversion revisited in insurance markets.
 - b. Theoretical Tool: Introduction to Moral Hazard and Adverse Selection
- 8. Demand for medical care:
 - a. Theoretical tool: Supply and demand analysis in insurance markets / graphical analysis of moral hazard
 - b. Empirical Tool: randomized Experiments revisited: The Rand Health Insurance Experiment.
- 9. Government as Insurer
 - a. Policy Issue: Does health Insurance improve Health?
- 10. Health Care Reform
 - a. Theoretical Tool: Adverse Selection and the Individual Mandate
 - b. Theroetical Tool: Labor markets and Reform
 - c. Policy Module: Impact of Reform on labor Markets
- 11. Health Care Supply.
 - a. Theoretical tool: supplier induced demand.