Health Systems Economics (ECP 3533)

Department of Economics
Florida International University

Instructor: Esteban Chinchilla

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Office Hours: Friday 6.30pm (Zoom), email ahead of time

Course Description

This course is an undergraduate-level introduction to health systems economics. We will examine how economic analysis can be applied to different areas of the health care system. We will use microeconomic theory to understand the behavior of health care markets, and we'll also discuss systems implemented in other countries. In this class we'll also use STATA (a statistical software package) to calculate metrics often used in population health and epidemiology.

For some of you, this may be the only course you take on the subject. It provides a solid foundation for economic analysis of the healthcare markets today. For others, this course will provide enough tools to take on a junior role as a data analyst in industry, and differentiate you from other job applicants.

The class will have exams, homework assignments, and quizzes. Hands-on practice with STATA is integrated into the class from the start, and students will learn throughout the course how to use software for data analysis, and how to interpret results.

Course Materials

The **required** textbook for the course will be **Health Economics and Policy**, 8th edition, by James W. Henderson. It can be rented for a reasonable price. We will also use a combination of slides and class notes that will be made available on Canvas.

ISBN-13: 978-0-357-71010-4 (eBook)

The eBook is fine, you do not need the paperback. Should you prefer the paperback, the ISBN-13 is: 978-0-357-13286-9

Prerequisites/Corequisites

None

Course Objectives

By the end of this course, you will be able to have a deeper understanding of the economic of healthcare systems today, and will have gained tools for economic analysis used in healthcare economics and population health initiatives.

Important Dates

The following are *tentative* exam dates for the course:

Exam	Week	Date
Exam I	Week 6	February 11th (Saturday)
Exam II	Week 11	March 18th (Saturday)
Exam III	Week 15	April 15th (Saturday)

Assignments

- Homework assignments will be given throughout the semester to give you practice implementing topics learned in class
- **Late submissions are NOT ALLOWED**

Late submissions, missed exams, and extra credit

Late submissions are NOT allowed, no exceptions.

There aren't any make-up exams.

There aren't any extra credit assignments.

At my discretion, I might implement a mechanism to make up for low grades. This will largely depend on overall class performance, so please don't plan on this being an option.

Software

This course will rely heavily on the use of STATA for homework assignments and the econometrics project. STATA is designed as a general-purpose statistical package, and has a powerful built-in graphing capability. You can access STATA via FIU's eLabs. Alternatively, temporary and perpetual licenses can be purchased from the STATA website.

We will exclusively be using STATA. Other languages such as Python, SAS, R, etc. are NOT an option for this class.

Grading Policy

All your grades will be posted on Canvas, allowing me to keep you informed on your progress in the course. If you have any questions or concerns about your grade or your performance in this class, please contact me immediately.

Your grade for the course will be determined as follows:

- **20%** Exam I
- **20%** Exam II
- **20%** Exam III
- **25%** Homework assignments
- **15%** Quizzes

Grade	Range	Grade	Range
A	100% to 90%	A-	< 90% to 87%
B+	< 87% to 84%	B	< 84% to 80%
B-	< 80% to 77%	C+	< 77%% to 74%
C	< 74% to 67%	D	< 67% to 57%
F	< 57% to 0%		

Course Policies

Office Hours

If you have questions, you may ask via email. Regular office hours will be held via Zoom and open to everyone on Mondays between 6.30pm and 7.30pm EST. I will be happy to make an appointment for another time if you wish to discuss something in private. My email address is esteban.chinchilla@fiu.edu

Other Policies

I will NOT approve an offline proctoring center at a non-fiu-approved location. If you intend to take the exam at an offline proctoring center, please make sure it's an FIU-approved location. If you intend to take exams at an offline proctoring center that's not an FIU-approved location, this course is not for you. Please refer to the syllabus on Canvas for additional information and applicable policies.

This syllabus is available to students that are considering taking the class. Upon enrollment, you'll see a copy of the syllabus posted on Canvas. Enrolled students are expected to familiarize themselves with the syllabus on Canvas - that will be the syllabus used for the class.

Course Schedule

Date	Week	Topic	Chapter(s)
9-Jan	Week 1	Math and Statistics review. Introduction to Econometrics. Types of data.	CH01
16-Jan	Week 2	Single variable linear regression and the population regression line. Sample regression line. Introduction to OLS	CH02
23-Jan	Week 3	OLS - continued. Assumptions: Linearity on parameters, and the expected value of the error term. Covariance and correlation	CH02
30-Jan	Week 4	Goodness-of-fit (R-squared). Gauss-markov theorem: OLS is BLUE. The unbiased estimator. Regression through the origin.	CH02
6-Feb	Week 5	Capital Asset Pricing Model (CAPM). Porfolio theory: managing risk. Risk and Return. Types of risk. OLS Measures of portfolio risk.	CH02
13-Feb	Week 6	Review: minimizing SSR. Running a linear regression in stata	CH02
20-Feb	Week 7	Multivariate regression model. Minimization problem. Results interpretation and identification strategy. Additional assumptions for BLUE.	CH03
27-Feb	Spring Break	Spring Break	
6-Mar	Week 8	Statistical inference in regression analysis. Sampling distributions of the OLS estimators. Hypothesis testing.	CH04
13-Mar	Week 9	Qualitative data. Indicator variables. Interaction terms.	CH07
20-Mar	Week 10	Difference-in-differences	CH13
27-Mar	Week 11	The linear probability model. Probit and Logit Models. Marginal Effects.	CH07, CH17
3-Apr	Week 12	Project	
10-Apr	Week 13	Project	
17-Apr	Week 14	Project Due	
24-Apr	Week 15	Finals Week	