Economics 4808
Introduction to Mathematical Economics
Spring 2019

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Office Hours:	T, TH 8:35 – 9:10am, 12:20 – 1:55pm, and by appointment (please give 2 weeks' notice for appointments).

Course Description

Econ 4808 is a course that will improve your math skills and will introduce you to how mathematical tools are applied in economic analysis. The ability to apply mathematics is crucial for economic analysis.

The course covers the mathematics and economic applications of equilibrium, slopes and derivatives, differentials, optimization (maximizing profit and utility, and minimizing cost), constrained optimization (e.g., maximizing utility subject to the budget constraint) and integration. Applications include problems in consumer and producer theory, general equilibrium, and welfare economics.

Prerequisites

Principles of Economics, Econ 2010 and Econ 2020, are prerequisites, as are Econ 1078 (Mathematical Tools for Economists 1) and Econ 1088 (Mathematical Tools for Economists 2), or the equivalent. One or more semesters of Calculus would suffice for Econ 1078 and 1088, but "Business Calculus" is not recommended. Econ 3070 is a prerequisite, but this course and 3070 are complements so you may be able to take them at the same time. It is **very** important that you fulfill the prerequisites **before** you take this course, and **still** understand the materials in the prerequisites. To be successful in mathematical economics, you need to first be comfortable with algebra and derivatives. If you have any uncertainty as to whether you are under or over qualified to take the course, please talk to me ASAP. The prerequisites must be strictly enforced.

To be sure you are prepared for the material to be covered in this course, you will take a preliminary quiz. The quiz will cover some basic economics and calculus. The quiz *may* have an impact on your overall grade. Two items are very important for passing this course: a good economics and math foundation, and more importantly, a willingness to strive to find answers even when they are not obvious. For this reason, you either need to score 80% or more on the prerequisite quiz, **or** at least continue to att

a bit. These cooperative learning exercises are extremely helpful in preparing you to solve more in-depth analytical problems.

Peer-learning of material is one of the most instructive learning systems because:

a. *If you are going to inform others about what you know, you must first fully understand it yourselves. If you cannot explain a concept to others you may not fully understand it yourself.*

b. *Most "real-world" careers require some form of teamwork skills.*

c. *You can discern what it takes to teach others.*

d. *It will teach you how to respond to critical questions in front of others.*

4.! Self-study: reading the text and solving the review questions.

In-class Problems

It is important to understand how to apply concepts as we cover them, so you will have the opportunity to work on some problems in class (in pairs or sm

Attendance Policy

Additional Notes:

Honor Code

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Any University policies that are in conflict with my own policies will supersede my policy!

A e l f e de a he he di c i b a d f e f c lleag e li e cla e : If ead he c e llab ill fi d he a e e i . If d de a d ha ead l ec e d ead l i le i e . Af e eadi g he llab if ill ha e e i c e back a d l ill hel a ch a ible.