

**North Carolina State University**  
**Department of Economics**  
**ECG 700, Fundamentals of Microeconomics**  
**204 Cox Hall, TH 10:15-11:30**  
**Fall 2010**

**Instructor:**

Thayer Morrill  
Office: 4148 Nelson Hall  
E-mail: thayer\_morrill@ncsu.edu

**Office Hours:**

I will be in my office regularly; feel free to drop in whenever I am in. Otherwise, office hours are by appointment. Send me an email to schedule a specific time.

**Textbook:**

Nicholson, *Microeconomic Theory: Basic Principles and Extensions* 10<sup>th</sup> edition.

This is a fairly expensive textbook. I do not mind if you buy an old edition. You may need to do a little work to coordinate problem numbers between edition, but as homework will not be handed in, this should be a minor inconvenience. However, if you decided to go with an older edition, it is entirely your responsibility to coordinate the homework problems and material between the editions.

**Not required but potentially useful textbooks:**

Osborne, *An introduction to Game Theory*. This is a decent but not great introduction to game theory. You will not need to buy it, but it may be a helpful reference. It is intended for an undergraduate game theory course.

Gibbons, *Game Theory for Applied Economists*. This is a great book if you think you may be interested in Game Theory. It is a little more advanced than what we will cover in this course, but it is a very nice introduction to graduate level Game Theory.

**Grading**

Your grade will consist of three parts: quizzes (20%), mid-term (40%), and final (40%). Each exam will be three hours (the mid-term will be in the evening at a date to be determined). I calculate the final grade by taking the weighted average of each score. Quizzes are discussed below.

### **Homework**

Suggested problems will be assigned throughout the course. Students will not hand in these assignments, but completing them is essential to learn the material. This is a problems course, and it is impossible to learn the material without practicing solving problems.

### **Quizzes**

Roughly a week after each homework set is assigned (I will announce the exact date, in advance, in class), there will be an in-class quiz. Each quiz will consist of one problem that is very similar to one of the homework problems. I will drop your lowest score.

### **Make ups**

Make up exams will not be given for the midterm. If the student needs to miss the exam for a university approved reason, the final exam will count for 80% of the students grade. A student must have a university approved excuse to make up a quiz.

### **Religious Observance or Other Anticipated Absence**

I will be giving the midterm in October. If you need to miss a date in October for a religious observance or other anticipated absence, you must inform me within the first two weeks of class.

### **Course Web Page**

The course's web page is:

<http://thayermorrill.com/courses/ECG700/>

All course materials will be stored here. Lectures and exams will be in a password protected area. The username and password are:

**Username:** ECG700  
**Password:** feartheturtle

## Course Outline

This course is designed to prepare you for a first-year, Ph.D. level, microeconomic theory sequence (in general) and ECG 701 and ECG 702 specifically. The topics will be drawn from both ECG 701 and 702 but the presentation will not be as advanced as in those courses.

1. Mathematics review and Consumer Theory
  - (a) Mathematics of optimization (Ch. 2)
  - (b) Preference Theory and Utility Maximization (Ch. 3 and 4)
  - (c) Income and Substitution Effects (Ch. 5)
2. Theory of the Firm
  - (a) Production Functions, Cost Functions, Profit Maximization (Ch. 9)
  - (b) Monopoly - Price Discrimination, monopolistic competition (time allowing) (Ch. 14)
3. Game Theory (Ch 8 but mainly from handouts/notes)
  - (a) Static, 2x2 Games
  - (b) Sequential Move Games
  - (c) Repeated Games
  - (d) Games of Imperfect Information
  - (e) Auctions
4. Uncertainty, Attitudes Towards Risk, and Mechanism Design (Ch 7 and more as time allows)