

**Syllabus for Intermediate Microeconomics (W3211)**  
**TR 1:10-2:25 614 Schemerhorn**

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**Textbook:** The required textbook is **Microeconomics: Theory and Applications with Calculus** by Perloff. All of the section numbers in the outline below refer to this textbook. Students wishing to see a more mathematical treatment of the subject might want to look at **Microeconomic Theory: Basic Principles and Extensions** by Nicholson. A third option is a free online textbook by McAfee titled **Introduction to Economics Analysis**. Although technically the McAfee book is a principles textbook it presents material in a mathematically sophisticated manner that is similar to Perloff.

**Recitations:** Students are strongly encouraged to attend a recitation section. Recitation sections are weekly one hour classes designed to assist students with the current homework assignment. There will be two quizzes in the class which will be given during recitation sections. Students who cannot make any recitation section will have to take the quiz during class time. Recitation times will be announced in the first week of class and posted on *Courseworks*.

**Teaching Assistants:** Giovanni Paci (gp2282) and Feiran Zhang (fz2179). Their office hours will be posted on the Courseworks website.

**Prerequisites:** Students must have completed Principles of Economics and must have completed Calculus III (or Honors A).

**Homework:** There are weekly graded homework assignments. Students may work in groups of **at most** 3 students. Each group of students submits one homework (not 3 identical copies) with each student's name on the single homework. Homework assignments will be distributed in class every week. The completed homework is due on Friday in the class mailbox in the economics department (10<sup>th</sup> floor IAB) by 4:30 pm. **No** late homework assignments will be accepted. Graded assignments will be returned in recitation sections. The homework assignments are worth 20% of your final grade.

**Exams:** There will be two quizzes, a midterm and a final exam. The quizzes will be administered during the recitation sections. Each quiz is worth 5% of your final grade. The first quiz will be during the week of September 24th. The midterm will cover the first section of the course (see the outline below). The midterm exam is worth 35% of your final grade. The midterm is tentatively scheduled for October 18th. The second quiz will be during the week of November 26th. The final exam will cover only the second half of the course. The date of the final is TBA. The final exam is worth 35% of your final grade. Make-up exams are available only in the cases of medical or family emergencies.

**Website:** Course information and assignments are available on the Columbia *Courseworks* website. Assignments are posted every Thursday.

**Course Outline**

**Section I: The Household and the Firm**

A. The Household

- The Basic Model of Consumer Choice
  - 1) Preferences, Indifference Curves and Utility (3.1-3.2)
  - 2) Budget Set (3.3)
  - 3) Best Bundle and the Demand Curve (3.4 & 4.1)
- Applications

- 1) COLA (4.4)
- 2) Government Policies (5.4)
- Changes in Income and Prices
  - 1) Income Changes (4.2)
  - 2) Price Changes (4.3)
  - 3) Compensating and Equivalent Variation (4.3 & 5.2)
- Labor Supply (5.5)
- Choice Under Uncertainty
  - 1) Expected Utility and Attitudes towards Risk (16.1 & 16.2)
  - 2) Avoiding Risk (16.3)
  - 3) Investing under Uncertainty (16.4)

#### B. The Firm

- Profit Maximization (8.2)
- Production and Cost
  - 1) Production and Economic Costs (6.2 & 7.1)
  - 2) Multiple Variable Inputs (6.4)
  - 3) Returns to Scale (6.5)
  - 4) One Variable Input (6.3)
  - 5) Short Run Cost Curves (7.2)
  - 6) Long Run Cost Curves (7.3 & 7.4)

### **Section II: Markets**

#### A. Competitive Markets

- Partial Equilibrium
  - 1) Short Run Perfect Competition (8.1, 8.3 2.2 & 2.3)
  - 2) Long Run Perfect Competition (8.4 & 9.1)
- Welfare Analysis in a Single Competitive Market
  - 1) Measuring Benefits (9.2 and 9.3)
  - 2) Interference to Market Clearing (9.5 & 2.7)
  - 3) Taxes and Tariffs (9.5, 9.6 & 2.6)
  - 4) Externalities (17.2 & 17.3)
- General Equilibrium and Welfare Economics
  - 1) Equilibrium in Multiple Markets (10.1)
  - 2) Exchange Economy (10.2)
  - 3) Competitive Markets (10.3)

#### B. Non-Competitive Markets

- Non Competitive Firms
  - 1) The Non Price Discrimination Monopolist (11.1-11.3)
  - 2) Price Discrimination (12.1-12.4)
  - 3) Cartels (14.2)
  - 4) Stackelberg Duopoly (14.5)