

AREC 506: Applied Microeconomic Theory
Fall 2013

9 Eddy Hall 12:30-1:45 pm TR

Professor: Andrew Seidl

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Office hours: 2:00-3:30 pm TR and by appointment

Prerequisite: ECON 306 or equivalent.

Course Description: Introduction to the development and use of mathematical models in modern microeconomics, including choices and demand, production and supply, and market structures and failures.

Evaluation:

Student evaluation will be based upon (approximately 5) homework problem sets (50% of final grade) and (two) examinations (20% midterm; 30% final).

The class will be graded in the following manner:

- 1) To combat the challenges of the traditional US grade scale (0-100), the following 5 point grading model (0-4), fully analogous to your grade point average, will be employed:
 - $A = > 3.5$;
 - $B = 3.5 > x > 2.5$;
 - $C = 2.5 > x > 1.5$;
 - $D = 1.5 > x > 1.0$;
 - $F = < 1.0$.
- 2) In addition, this is a graduate course. As such, the mean grade for the course should probably be a "B+." Therefore, notwithstanding the above criterion, if you are within one quarter of one standard deviation of the mean, you will earn a "B+" So, B+ is plus or minus $\frac{1}{4}$ of one s.d. of the mean regardless of where that mean falls. If you are more than one quarter of one standard deviation above the mean, you will earn an "A or A-," 0.25 to 0.75 standard deviations below the mean earns a "B", 0.51-1.00 sd below the mean is a "B-", etc.

Course Objectives:

Upon successful completion of this course, students will be able to...

- apply basic optimization techniques to solve simple consumption and production problems;
- use both graphical and mathematical analysis to describe the basic tenets of choice theory and demand analysis;
- use both graphical and mathematical analysis to describe the basic tenets of production, short and long-run costs, supply, and profit maximization;
- use consumer and producer theory to illustrate the emergent outcomes of different market structures and their relative efficiency and welfare consequences in a partial equilibrium framework.

Text:

Required: Nicholson, W. and C.M. Snyder. 2011. Microeconomic Theory: Basic Principles and Extensions, 11th Ed. South-Western College Pub.

Recommended/supporting: Chiang, A., and K. Wainright. 2005. Fundamental methods of mathematical economics, 4th Edition. McGraw-Hill (Particularly Parts III and IV).

Anticipated Schedule

Week 1: 27 & 29 August, 2013

- Ch 1: Economic Models and Mathematics for Microeconomics

Week 2: 3 & 5 September, 2013

- Ch 3: Preferences and Utility

Week 3: 12 September, 2013

- Note: No Class Sept 10. Other classes will be extended or an alternative date will be sought to make up for the cancellation.
- Ch 4: Utility Maximization and Choice
(Problem Set #1: Due COB Thursday)

Week 4: 17 & 19 September, 2013

- Ch 5: Income and Substitution Effects

Week 5: 24 & 26 September, 2013

- Ch 6: Demand
(Problem Set #2: Due COB Thursday)

Week 6: 1 & 3 October, 2013

- Ch 6: Demand

Week 7: 8 & 10 October

- Review, synthesis and **Midterm examination**

Week 8: 15 & 17 October, 2013

- Ch 9: Production Functions and Cost

Week 9: 22 & 24 October, 2013

- Ch 10: Production Functions and Cost

Week 10: 29 & 31 October, 2013

- Ch 11: Profit Maximization
(Problem Set #3: Due COB Thursday)

Week 11: 5 & 7 November, 2013

- Ch 12: Partial Equilibrium in a Competitive Market

Week 12: 12 & 14 November, 2013

- Ch 12: Partial Equilibrium in a Competitive Market
(Problem Set #4: Due COB Thursday)

Week 13: 19 & 21 November, 2013

- Ch 13: General Equilibrium and Welfare

Fall Recess, 25-29 November, 2013

Week 14: 3 & 5 December, 2013

- Ch 14: Monopoly
(Problem Set #5: Due COB Thursday)

Week 15: 10 & 12 December, 2013

- Synthesis, review

Final Examination: Thursday 19 December, 2013. 6:20-8:20 pm.