# INTERMEDIATE MICROECONOMICS (ECON 3070-006)

Department of Economics, University of Colorado Fall 2010

M,W,F: 11:00-11:50 am, Professor: Charles de Bartolome

Room: RAMY N1B23 Office: ECON 203 Office hours: M 2:15-3:15 pm; Tu 9:15-10:15am; Tel #: (303) 492-4464

Fri 9:15 - 10:15 am. e-mail: debartol@colorado.edu

Textbook: Andrew Schotter, (2009), Microeconomics: A Modern Approach.

South-Western Cengage Learning.

## Course description:

The course's primary goal is to prepare students with the basic tools used in the 4000-level courses. It presents the material by considering the different stages of economic development. The decisions by households of how hard to work, which goods to buy and how much to save are presented in an undeveloped economy. A firm is then posited to discover a production process and to become a monopoly: its pricing decisions are discussed. The monopoly's profits induce entry and the industry becomes an oligopoly. The interaction between the firms is used as a tool to present game theory. As more firms enter, the industry becomes competitive. The welfare consequence of the different industry structures are discussed.

#### Course Level:

The course builds on the material presented in the Introduction to Economics (ECON 1000) or the Principles of Microeconomics (ECON 2010), covering the material at a more advanced level. The basic relationships are developed graphically and using calculus.

#### *Pre-requisites:*

EITHER ECON 1000 (Introduction to Economics) OR Econ 2010 (Principles of Microeconomics);

AND

EITHER ECON 1078 and 1088, OR MATH 1071 and 1081, OR MATH 1071 and 1300, OR APPM 1350.

### Course assignments and CULearn:

All course assignments, problem sets and some lecture notes are posted on CULearn at: https://cuconnect.colorado.edu

In the past, some students have had difficulty in downloading some of the posted pdf files. ITS advises that this is due to the large file sizes. ITS recommends that you open the Adobe Acrobat Reader. Then click as: Edit > Preferences> Internet and *un*check "Allow Fast Web View".

Please note that six pages of each Adobe Acrobat file can be printed on a single sheet by clicking as: Print >Properties > Multipage Printing > 6.

### Problem Sets:

Problem sets with answers will be posted for each topic. The problem sets are an integral part of the course. They are designed to help you master the material.

In addition, there are many questions at the end of each chapter in the textbook. I particularly encourage you to d •

Difference with other sections:

# Harassment Policy:

The University of Colorado at Boulder policy on Discrimination and Harassment, the University of Colorado policy on Sexual Harassment and the University of Colorado policy on Amorous Relationships applies to all students, staff and faculty. Any student, staff or faculty member who believes s/he has been the subject of discrimination or harassment based on race, color, national origin, sex, age, disability, religion, sexual orientation, or veteran status should contact the Office of Discrimination and Harassment (O

## Academic Integrity:

All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council (<a href="https://www.colorado.edu">honor@colorado.edu</a>; 303-725-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Other information on the Honor Code can be found at <a href="http://www.colorado.edu/policies/honor.html">http://www.colorado.edu/policies/honor.html</a> and at <a href="http://www.colorado.edu/academics/honorcode/">http://www.colorado.edu/academics/honorcode/</a>

#### Course outline:

shown overleaf is a list of topics to be covered and likely dates.

15, 17 Sept APPLICATIONS OF HOUSEHOLD DEMAND

Labor Supply

Savings Supply *also*: pp 683.5 - 685

5 (pp. 93-104.4)

Textbook problems: Chapter 9, Q 1, 3

11Oct FIRMS: COSTS (cont)

10

Short-run and long-run Marginal cost functions Average cost functions.

*Problem Set 6*: Costs

Textbook problems: Chapter 10, Q 1

### 4. "MARKET" INTERACTIONS: HOUSEHOLDS AND FIRMS

13,15,18 Oct STRATEGIC ANALYSIS: GAME THEORY

omit: pp. 237.7 - 251,

Extensive form Information sets Strategy

omit: Appendix Aomit: Appendix B

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Normal form
Nash Equilibrium
Credible Threats

Subgame Perfect Equilibrium

**Backward Induction** 

*Problem Set 7:* Game Theory

Textbook problems: Chapter 11, Q 2, 6

20,22 Oct "MARKET": MONOPOLY

17

Marginal revenue curve Maximizing profit *omit*: pp. 391.8 - 403 *omit*: Appendix B

- "marginal revenue = marginal cost" rule

Well-being created by monopoly Socially-optimal single price

Problem Set 8: Monopoly

Textbook problems: Chapter 17, Q 4.

25 Oct SECOND MIDTERM (7:00 - 9:00 p.m. in MUEN E0046)

27, 29 Oct "MARKET": MONOPOLY: REGULATION

omit: pp. 429.4 - 432

Social inefficiency: deadweight loss

omit: pp. 436.5 - 441

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Natural Monopoly

1, 3 Nov

Sustainable Monopoly *omit*: Appendix A Average-cost pricing *omit*: Appendix B Rate of return regulation

Price-cap regulation

Problem Set 10: Regulation

Textbook problems: Chapter 18, Q 2, 5

5,8,10 Nov "MARKET": DUOPOLY

Cournot Quantity Model omit: pp. 463.5 - 466.1
Welfare properties of duopolistic markets omit: pp. 472.4 - 482.1
omit: pp. 484.6 - 485.5

omit: Appendix B

Textbook problems: Chapter 19, Q 1

12 Nov "MARKET": OLIGOPOLY AND MARKET ENTRY pp. 510 - 512. 5

Perfect competition as a sequence of successful entries

*Problem Set 10*: Duopoly/Oligopoly

15, 17 Nov "MARKET": PERFECTLY-COMPETITIVE MARKETS 14

IN SHORT-RUN *omit*: pp. 334 - 336.7

Short-run supply of individual firm

Short-run Equilibrium

Textbook problems: Chapter 14, Q 2.

19, 29 Nov "MARKET": PERFECTLY-COMPETITIVE MARKETS 15 (pp. 342-349.5)

IN LONG-RUN

Long-run equilibrium Dynamic changes

Textbook problems: Chapter 15, Q 1, 2.

1 Dec NORMATIVE PROPERTIES OF COMPETITIVE EQUILIBRIA 15 (pp. 349.5-355)

Why are long-run competitive equilibria so good?

First Fundamental Welfare Theorem Second Fundamental Welfare Theorem

Problem Set 11: Perfect Competition

3 Dec FACTOR MARKETS

Labor Market omit: pp. 689-699.5

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Capital Market

Textbook problems: Chapter 26, Q 3, 7 8.

5. COURSE SUMMARY: EXPERIMENT

6,8,10 Dec EXPERIMENT

14 Dec FINAL EXAM (7:30 - 10:00 pm in RAMY N1B23)