

UNIVERSITY OF COLORADO
Department of Economics

Economics 7010-001
Microeconomic Theory 1
Fall 2009

Professor Jennifer Lamping
Office: Economics 103
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Lectures: MW 12:00pm - 1:15pm, Economics 119
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Course Website: CULearn

Course Description

This course is the first of three semester courses that develop the basic tools and results of modern microeconomic analysis. The first semester course covers individual decision making and optimization theory.

The course is highly technical. Although mathem

Textbooks

The required textbooks are

Microeconomic Theory by Andreu Mas-Colell, Michael D. Whinston, and Jerry R. Green

A First Course in Optimization Theory by Rangarajan K. Sundaram

The following four texts offer different presentations of the material in Mas-Colell, Whinston, and Green. If you find that you are having trouble with Mas-Colell, I urge you to obtain one or more of these texts to assist you in understanding Mas-Colell.

Advanced Microeconomic Theory by Geoffrey A. Jehle and Philip J. Reny

A Course in Microeconomic Theory by David M. Kreps

Microeconomic Analysis by Hal R. Varian

Microeconomic Theory: Basic Principles and Extensions by Walter Nicholson and Christopher Snyder

If you find that you are having trouble with the mathematics used in this course, I recommend obtaining one or more of the following texts as references:

Fundamental Methods of Mathematical Economics by Alpha C. Chiang and Kevin Wainwright

Mathematics for Economics by Michael Hoy, John Livernois, Chris McKenna, Ray Rees, and Thanasis Stengos

Real Analysis with Economic Applications by Efe A. Ok

Mathematics for Economists by Carl P. Simon and Lawrence E. Blume

Further Mathematics for Economic Analysis by Knut Sydsaeter, Peter Hammond, Atle Seierstad, and Arne Strom

Mathematical Tools for Economics by Darrell A. Turkington

Grading

The various components of the course will be weighted as follows to determine your final grade:

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|---------------|-----|
| Assignments | 10% |
| Midterm Exams | 45% |
| Final Exam | 45% |

The midterm and final exams will each be graded on a 100 point scale with points allotted on the basis of the accuracy of your answers. In contrast, assignments will be graded on a scale from 0 to 2: 0 points for not handing it in, 1 point for a below average performance, and 2 points for an above average performance.

Missed Assignments & Exams

Late assignments will not be accepted since solutions are posted online shortly after the assignment is due. You may not miss an exam. No makeup exams will be given.

Tentative Course Schedule

| Date | Topic | Required Readings | Assignments |
|---------------|--|---|--------------------|
| Aug 24 | Mathematical Preliminaries | HLMRS 2.1; R 1.1, 1.2, & 2.1, S 1.1 - 1.4 | |
| Aug 26 | Preference Relations | MWG 1.A & 1.B | |
| Aug 31 | Choice Rules and WARP | MWG 1.C & 1.D | PSet 1 Due |
| Sep 02 | Homogeneous Functions and Convex Sets | MWG M.B & M.G; HLMRS 11.5 | |
| Sep 07 | No Classes (Labor Day) | | |
| Sep 09 | The Consumer's Problem | MWG 2.A - 2.E | PSet 2 Due |
| Sep 14 | Properties of Matrices | MWG M.A & M.D; S 1.3 & 1.5; Definiteness Check | |
| Sep 16 | Implications of WARP for Demand | MWG 2.F | |
| Sep 21 | Convexity, Quasi-Convexity, and Continuity | MWG M.C & M.F; S 1.2.7 - 1.2.9, 1.4.1 - 1.4.2, 7.1 - 7.2, & 8.1 - 8.3 | PSet 3 Due |
| Sep 23 | Convexity, Quasi-Convexity, and Continuity (Cont'd) | MWG M.C & M.F; S 1.2.7 - 1.2.9, 1.4.1 - 1.4.2, 7.1 - 7.2, & 8.1 - 8.3 | |
| Sep 28 | Preferences and Utility | MWG 3.A - 3.C | PSet 4 Due |
| Sep 30 | Preferences and Utility (Cont'd) | MWG 3.A - 3.C | |
| Oct 05 | The Weierstrass Theorem and Unconstrained Maximization | MWG M.J; S 2 - 4 | |
| Oct 07 | Constrained Maximization: | | |

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|---------------------------------|---|-------------------------------|-------------|
| Oct 26 | The Utility Maximization Problem | MWG 3.D | PSet 7 Due |
| Oct 28 | The Expenditure Minimization Problem | MWG 3.E | |
| Nov 02 | Relationships between Demand, Indirect Utility, and Expenditure Functions | MWG 3.G; Consumer Road Map | PSet 8 Due |
| Nov 04 | Welfare Considerations | MWG 3.I | |
| Nov 09 | SARP and Aggregate Demand | MWG 3.J & 4.A - 4.B | |
| Nov 11 | Aggregate Demand and WARP | MWG 4.C | |
| Nov 13 | Midterm Exam 2 | 12:00pm - 1:15pm | |
| Nov 16 | Aggregate Demand and the Representative Consumer | MWG 4.D | PSet 9 Due |
| Nov 18 | Production Sets | MWG 5.A - 5.B | |
| Nov 23 | No Classes (Fall Break) | | |
| Nov 25 | No Classes (Fall Break) | | |
| Nov 30 | Profit Maximization | MWG 5.C; Nicholson 8 | PSet 10 Due |
| Fal:zrB.ITJ13.T2 1 T PSet 8 Due | | | |

University Policies

Students with Disabilities

If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services **by September 9th** so that your needs may be addressed. Disability Services determines accommodations based on documented disabilities. University policies regarding disabilities are available at www.colorado.edu/disabilityservices. Disability Services can be contacted by telephone at (303) 492 8671 or in person at Willard 322.

Religious Observances

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments, or required attendance. If you have a conflict due to a religious obligation, please see me **at least one full week in advance** so that alternate arrangements can be made. Policies regarding religious observances are available at www.colorado.edu/policies/fac_relig.html.

Classroom Behavior

Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender, gender variance, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. Policies regarding classroom behavior are available at <http://www.colorado.edu/policies/classbehavior.html> and at http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code.

Discrimination and Harassment

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 apply to all students, staff, and faculty. Any student, staff, or faculty member who believes s/he has been the subject of sexual harassment or discrimination or harassment based upon race, color, national origin, sex, age, disability, creed, religion, sexual orientation, or veteran status should contact the Office of Discrimination and Harassment (ODH) at (303) 492 2127 or the Office of Judicial Affairs at (303) 492 5550. Information about the ODH, the above referenced policies, and the campus resources available to assist individuals regarding discrimination or harassment can be obtained at <http://www.colorado.edu/odh>.

Academic Misconduct

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 (honor@colorado.edu, (303) 735 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 www.colorado.edu/policies/honor.html and at www.colorado.edu/academics/honorcode.