

INTERMEDIATE MICROECONOMIC THEORY (ECON 3070-010 AND 3070-030)
Department of Economics, University of Colorado
Spring 2018

Professor:	Charles de Bartolome	Recitation instructor:
Office hours:	M 2:40-3:30 pm; Tu 1:30-2:30pm F 9:00 - 10:00 pm.	Recitation time: Recitation place:
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Textbook: Austan Goolsbee, Steven Levitt and Chad Syverson, (2016), *Microeconomics* (2nd Edition) WITH LAUNCHPAD ACCESS. Worth Publishers.

Buying textbooks is expensive. I do not recommend that you buy the textbook and LaunchPad access separately. It is almost-always much cheaper to buy a bundle of the textbook plus Launchpad access. I have negotiated with Worth Publishers for a competitive price, so I think the cheapest way for you to buy the bundle is either at the CU Bookstore or directly from Worth Publishers. I will advise you of the appropriate e-address on the first day of class

I am not yet sure whether you will be able to access LaunchPad using Desire2Learn. This is my preferred option but it may not be feasible. Therefore, once you have bought LaunchPad access, do *not* enter any registration code etc into your computer until I have announced whether you are to register through Desrie2Learn.

LaunchPad: Each student must enroll in LaunchPad. In addition to providing additional learning materials, there are weekly quizzes on LaunchPad which will be graded. Each quiz is due by 10am on Monday.

The first LaunchPad quiz is for practice only and is due at 10am on Monday 22 Jan. The first Launchpad quiz which is graded is due at 10am on Monday 29 Jan.

There are additional assignments associated with reading the textbook before class. I am still thinking about how to organize these.

“Clickers” Each student must buy a *i>clicker*. If you do not already own one, an *i>clicker* may be purchased at the University of Colorado bookstore. Clickers will be used to promote faculty-student interaction. They will also be used to give class problems which will be scored.

Clickers must be registered at: <https://myCUinfo.colorado.edu> . Register using your Identity Login (*not* your student ID).

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 Principles of Microeconomics (ECON 2010), covering the material at a more advanced level. The basic relationships are developed graphically and using calculus.

Pre-requisites:

ECON 2010 (Principles of Microeconomics);


AND

EITHER ECON 1088 OR MATH 1081 OR MATH 1300 OR MATH 1310 OR APPM 1350 (all min grade C-).

Students must have at least 22 credit hours completed

Course assignments and Desire2Learn webpage:

All course assignments and most lecture notes are posted on the Desire2learn course webpage located at: <https://learn.colorado.edu>

Please note that six pages of each Adobe Acrobat file can be printed on a single sheet by clicking as: download >  > download > show in folder > print > multiple > 3 x 2, landscape

Attendance at class:

Woody Allen once remarked: "90% of success is just turning up". The best way to learn the material is to attend class. Reading the lecture notes posted on the web is not a good substitute for attendance. Attendance at class is therefore required.

Administrative Drop:

Because attendance is important and is expected, I will drop from the class any student who neither attends two of the first three classes of the term nor gets special permission from me for his/her absence.

Recitations: Recitations start w/c 22 January.

The recitations are an integral part of the course and therefore attendance at recitation is required. Recitations will go over the weekly problem set.

The weekly problem set is posted on the Desire2Learn webpage. Before the recitation, you must attempt to work through the weekly problem set. The recitation reviews the problem set.

The weekly problem set is designed to present problems at a deeper level than the LaunchPad quizzes. The format of the exams will be closer to the format of the weekly problem set than to the LaunchPad quizzes.

Grading: There are two midterm exams, a final exam, in-class clicker questions, assignments associated with LaunchPad, and recitations. The grade of the student will be determined as:

22%	First Midterm,
26%	Second Midterm,
27%	Final
8%	In-class clicker questions
8%	LaunchPad quizzes
9%	Recitations

Concerning in-class clicker questions. I use clicker questions to reinforce the main point of a lecture. A correct answer receives 1 point and an absence or an incorrect answer receives zero points.

In calculating your total score for all in-class clicker questions, I will sum your scores for all days, omitting your three lowest daily scores.

Concerning recitations: At the recitation, you are required to hand in an answer to the Problem Set which show evidence of effort (your answer need not be correct). If you are present and if your answer shows evidence of effort, you will receive a score of 1 for that week. If you are not present at the recitation and do not hand in an answer, you will receive a score of zero for that week. Your recitation leader will determine how you will be treated if (1) you are present but the answer which you hand in shows no evidence of effort or if (2) you are not present but submit in advance to your recitation leader an answer showing evidence of effort. You may not ask somebody else to hand in an answer on your behalf.

In calculating your total score for recitations, I will omit your two lowest weekly scores.

Exams: The two midterms will be given in the evening as:

FIRST MIDTERM: Monday 12 Feb, 7 - 9pm. Location:

SECOND MIDTERM: Wednesday 21 Mar, 7 - 9pm. Location:

The final exam will be held as:

FINAL: For Section 10: Tuesday 8 May, 1:30 - 4:00 pm
in ECON 119

For Section 30: Sunday 6 May, 7:30 - 10:00 pm
in DUAN G2B47

You must bring three blue-books to each exam.

Failure to be present at an exam:

If you fail to be present at an exam (unless you are ill and have a medical note from your doctor, or unless before the exam I have granted you permission to take a make-up exam), you will earn a score of 0 in the exam.

Classroom courtesy:

Please turn your cell 'phone off prior to the start of class.

I believe that learning is enhanced if there is full concentration by both the instructor and the student. Therefore, usage of laptop computers in class is restricted to following the course notes. To facilitate this, laptops may only be used in the front two rows of the classroom.

Drop-in Tutorial Lab:

The Department of Economics provides a free drop-in tutorial lab for undergraduates enrolled in Economics 3070 and other courses.

Information about the lab is available at:

www.colorado.edu/Economics > undergraduate > drop-in tutorial lab

Tutors:

The Department of Economics keeps a list of tutors. Please contact the department's Main Office if you would like to review the list. The Main Office is in Room 212 in the Economics Building.

Using Clickers:

I consider it cheating if a student uses another student's clicker.

You get a green light when your answer is registered. If you get a red light, your clicker is not registering and your score is automatically zero.

Accommodations for students with special needs:

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the Disability Services website (www.colorado.edu/disabilityservices/students). Contact Disability Services at 303-492-8671 or dsinfo@colorado.edu for further assistance.

If you have a temporary medical condition or injury, see Temporary Medical Conditions under the Students tab on the Disability Services website and discuss your needs with your professor.

Religious Observances:

Campus policy regarding religious observances requires that faculty make every effort to reasonably and fairly deal with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, please let me know in a timely manner if one of the exam dates or dates on which an assignment is due falls on a religious holiday you intend to observe and I will arrange for you to take a make-up. See policy details at: http://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 race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. 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. For more information, see the policies on classroom behavior and the Student Code of Conduct. See policies at <http://www.colorado.edu/policies/student-classroom-and-course-related-behavior>
And at:
<http://www.colorado.edu/osccr/>

Academic Integrity:

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the academic integrity policy. Violations of the policy may include: plagiarism, cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, resubmission, and aiding academic dishonesty. All incidents of academic misconduct will be reported to the Honor Code Council (honor@colorado.edu; 303-735-2273). Students who are found responsible for violating the academic integrity policy will be subject to nonacademic sanctions from the Honor Code Council as well as academic sanctions from the faculty member. Additional information regarding the academic integrity policy can be found at the Honor Code Office website.

Discrimination and Harassment Policy:

The University of Colorado Boulder (CU Boulder) is committed to maintaining a positive learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct, discrimination, harassment or related retaliation against or by any employee or student. CU's Sexual Misconduct Policy prohibits sexual assault, sexual exploitation, sexual harassment, intimate partner abuse (dating or domestic violence), stalking or related retaliation. CU Boulder's Discrimination and Harassment Policy prohibits discrimination, harassment or related retaliation based on race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. Individuals who believe they have been subject to misconduct under either policy should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127. Information about the OIEC, the above referenced policies, and the campus resources available to assist individuals regarding sexual misconduct, discrimination, harassment or related retaliation can be found at the OIEC website.

Course outline:

A list of topics to be covered and likely dates is shown on the next pages. This is an provisional plan. Topics may take more or less time than estimated in this plan.

(PROVISIONAL) COURSE OUTLINE

<i>Date</i>	<i>Topic</i>	<i>Section</i>
17 Jan	INTRODUCTION Scarcity and Markets Normative and Positive	1.1, 1.2 pp. 11-12
19 Jan	REVIEW Rationality Marginal Analysis Decision-Making using Marginal Analysis Use of Models	2
1. HOUSEHOLDS		
22, 24, 26 Jan	REPRESENTING TASTES Utility - marginal utility - diminishing marginal utility Indifference Curves - marginal rate of substitution - bowed-in Ordinal or cardinal? Substitution and Income effects New Welfare Economics	4.1 4.2
29 Jan	BUDGET LINE	4.3
31 Jan	CHOICE AND QUANTITY DEMANDED Review: Rationality Individual consumer choice - rule: “marginal rate of substitution = good price ratio”	4.4, 4.Appendix (pp. 147-149)
2, 5, 7 Feb	COMPARATIVE STATICS Income changes - income expansion path - normal and inferior goods Price changes Individual demand curves Income and substitution effects Changes in price of other goods	5.1 5.2 5.3 5.4

	Market demand curve	5.5
9 Feb	LABOR CHOICE Labor Supply Savings	13.2
12 Feb	In-class Review 7-9 pm FIRST MIDTERM	
14, 16, 19 Feb	VALUING GOODS MARKET ACTIVITIES Individual Benefit Marginal Benefit Marginal benefit curve \equiv Individual demand curve Net Benefit from Buying \equiv Consumer Surplus Society's Marginal Benefit Marginal Social Benefit Curve \equiv Market Demand Curve Society's net benefit from buying	3.1
21, 23 Feb	VALUING LABOR MARKET ACTIVITIES Individual's marginal cost of labor Individual's marginal cost of labor \equiv individual's labor supply curve Individual's net benefit from working Society's Marginal Cost of labor Social Marginal Cost Curve \equiv Market labor supply curve Society's net benefit from working	

2. FIRMS

26, 28 Feb	PRODUCTION	
2 Mar	Production Function - marginal product - diminishing marginal product Iso-quant Marginal rate of technical substitution Returns to scale Short-run and long-run Short-run production	6.1, 6.2, 6.3 6.4 (pp. 210-214) 6.5 6.2 6.3
5 Mar	CHOOSING INPUTS AND COST Isocost line Choosing input mix - rule: "marginal rate of technical substitution = input price ratio"	6.4 (pp. 214-216) 6.4 (pp. 217-222), 6.Appendix (pp 239-242)

	Comparative Statics	
	- wage change	
	- output change	
	- technology change	6.6
7, 9, 12 Mar	SHORT-RUN AND LONG-RUN COST	
	Total Cost Curve	6.7
	Fixed Sunk and Variable Cost	7.1, 7.2, 7.3
	Marginal and Average Cost	7.4
	Short-run and Long-run cost relationship	7.5
14 Mar	PROFIT	
	Accountant's, Managers' and Society's Profit	

3. "MARKET" INTERACTIONS: HOUSEHOLDS AND FIRMS TOGETHER

16, 19 Mar	THE BENCHMARK	
	Producer Surplus	3.1
	Net Benefit Created = Consumer Surplus + Producer Surplus	
	The Planner	
	Maximum Possible Net Benefit Created (Efficiency)	
	Equity concerns	
21 Mar	In-class review	
	7 - 9 pm SECOND MIDTERM	
23 Mar	No class	
2, 4, 6, 9, 11 Apr	"MARKET" IS MONOPOLY	
	Market Power	9.1
	Marginal revenue	9.2, pp. 372-373
	- downward sloping	
	Choosing quantity to maximize profit	9.3, pp 371
	- rule: "marginal revenue = marginal cost"	
	Comparative statics	9.4
	Well-being lost with monopoly	9.5
	Barriers to entry	
	Government regulation	9.6

13, 16 Apr	STRATEGIC ANALYSIS: GAME THEORY Game Extensive Form Information Set Strategy Normal Form Nash Equilibrium	12.1 (pp. 466-467) 12.1 12.2 (pp. 469-475)
18, 20 Apr	“MARKET” = DUOPOLY Cournot Quantity Competition Welfare properties of duopolistic markets	 11.3
23, 25 Apr	“MARKET” = OLIGOPOLY AND MARKET ENTRY Perfect competition as a sequence of successful entries	
27 Apr	“MARKET” = COMPETITIVE MARKET Price-taking Firm’s choice of quantity to maximize profit - rule: “marginal cost = price” <i>Short-run</i> : fixed number of firms Short-run supply curve Short-run equilibrium Short-run producer surplus <i>Long-run</i> : firms enter and exit: firm number variable Long-run equilibrium Long-run supply curve Long-run producer surplus	 8.1, 8.2 2.3, 2.4, 8.3 8.4
30 Apr	NORMATIVE PROPERTIES OF COMPETITIVE EQUILIBRIA Why are long-run competitive equilibria so good. First Fundamental Welfare Theorem.	
30 Apr	LABOR MARKETS Demand for labor - rule: “VMPL = wage” Consumer and producer surplus in competitive market	
2 May	In-class review FINAL EXAM	