

# Syllabus: Intermediate Microeconomic Theory

Econ 3070-001

Fall 2014

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**Instructor: Alex Kormendi**

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*TA:*

Office location:

Office hours:

Class Meeting: MWF 12:00–12:50 in HLMS 199

Class website: Desire2Learn

Discussion Website: [www.reddit.com/r/CUecon3070/](http://www.reddit.com/r/CUecon3070/)

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## Course Description

Intermediate Microeconomics at CU builds upon what you have learned in Principals, covering neo-classical economic theory, game theory, graphical analysis in the context of several simple models that approximate real-world economic dynamics, and quantitative optimization using calculus. These subjects and tools are intended to provide a foundation to continue your study of economics, help understand the elements that enter rational “optimal” decision making, and thereby to teach you to make better decisions for yourself and on behalf of clients and employers.

However, the theory, conclusions, and tools taught in core economics across the country should not be taken dogmatically or even literally: the most sophisticated modern economic models (well beyond the scope of this class) explain only *very small amounts* of the variation in behavior observed in real world data, and they perform even worse at prediction. This is partly because not all factors influencing choices are known to the econometrician, but also because the models themselves *are approximations* that do not account for very strong real-world behavioral forces (e.g. love; cultural/social perspective shifts; non-material value; absent-mindedness; etc.). In real life, there are more situations with more issues at play with more nebulous and interactive mechanics than quantitative analysis can possibly capture. Making decisions in most real life situations calls for the use of intuition, innovation, approximation, and other fuzzy semi-logical processes. Cleverly applied, the “morals” we learn in class can be used to improve these day-to-day processes for the benefit of you, others, broader society, the environment, and anything else of importance: costs should be minimized, some are hidden, some are unexpected; value should be maximized, and it

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<sup>1</sup>Appointments only made if you cannot attend scheduled hours and will be help at our mutual convenience.

<sup>2</sup>This is the best way to contact me outside of office hours. Please allow me 24 hours to respond.

takes many forms; risk and uncertainty exist and are costly; variety is the spice of life; information is fundamental to every decision; our actions effect others, and their actions effect us; we coexist with the environment and everything it contains; consequences often manifest in future periods; human interaction is a negotiation; our actions send signals to others that broadcast our character and intentions, always. If life is making a series of decisions, then life is economics, and living is tactics and strategy: it's important to know the rules, players, teams, payouts, and that no one need lose.

The core material and tools you will be tested on in this course center around quantitative optimization methods. If you enter professional fields such as economic/strategic consulting, finance, or any field which employs structural modeling to inform business decisions (most any systems optimization), then you may ultimately use these tools, or comparatively similar ones, in your daily career, potentially even building economic models from the ground up which are idiosyncratic to your employer's or client's needs.

### Prerequisites

- Economics Prerequisites: ECON 1000 or ECON 2010
- Math Prerequisites: ECON 1078 & 1088 or MATH 1300 or MATH 1310 or MATH 1081 or MATH 1080 & 1090 & 1100 or APPM 1350 or equivalent

It is assumed that every student has a working knowledge of basic algebra, calculus, and graphing skills. Relevant math techniques and economic concepts will be briefly reviewed when necessary, but you are responsible for the math and econ requirements of this course.

### Required Textbook/Materials

A Clicker is required, which you are to bring to every class. They are used both to answer in class questions, and as a form of attendance. (details below)

The required textbook is *Microeconomics*, by Besanko and Braeutigam, 3rd–5th ed., Wiley. Unfortunately, due to intellectual property laws and economic forces, hard copies of this book are quite expensive, though somewhat less so for older editions. You are not required to purchase a hard copy, and may use digital copies if you chose, though please note that using any of the free good quality digital copies easily findable through major online search engines constitutes a violation of the US's poorly designed copyright laws<sup>3</sup> if you do not pay the publisher for a license. I recommend reviewing the previous days notes and reading the relevant chapters in the textbook *before each lecture*.

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<sup>3</sup>I am not an enforcer of these laws.

## Grading<sup>4</sup>

Score	Grade	Score	Grade
93%–100%	A	63%–66%	C
90%–92%	A-	70%–72%	C-
87%–89%	B+	66%–69%	D+
83%–86%	B	60%–66%	D
80%–82%	B-	<60%	F
77%–79%	C+		

Your semester grade will be weighted as follows:

- Homework: 0%
- Online Discussion: 10%
  - Short Assignments: 10%
- Clicker Questions: 5%
- Attendance:  $\pm 3\%$
- Midterm exam 1: 20%
- Midterm exam 2: 25%
- Final Exam: 30%

### Homework

Homework assignments are optional and will not be collected or graded. However, I highly recommend you work through them because they give you an opportunity to practice the material from lecture. The homework is designed to give you ample amounts of practice in completing the types of problems you will encounter on exams. All homework assignments will be posted on Desire2Learn along with the solutions. I will also periodically suggest problems from the 5th (and 4th when possible) edition of book that I think could be helpful in preparing for the exams. These problems don't come with solutions but rumor has it someone has posted them all online. I highly encourage you to work in groups: direct human interaction is a much more efficient method of learning than reading text books, and you can fill in the gaps in each other's understanding of the material and tools you learn throughout the semester.

### Online Discussion

Each week we will have an online discussion on some topic using reddit.com, a popular news and discussion website that provides user-generated “subreddits” which serve as effective and powerful conversation forums. I have created the following subreddit for our class:

[www.reddit.com/r/CUecon3070/](http://www.reddit.com/r/CUecon3070/)

Please visit this URL to participate in new discussion prompts (including questions, articles, podcasts, etc.) to be posted Monday of each week.

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<sup>4</sup>I reserve the right to curve the grades for any individual assignments or the course overall if need be.

I will consider discussions closed for grading 2 weeks after initially posted, though you are welcome to continue the conversation after; I will consider requests to extend any such deadline based on the quality of the conversation to ensure good arguments and insight are given due credit. All students must submit a reddit user name they plan to use for the duration of the semester. You do not need to make your real name public to the class, only to me. If you have an existing reddit account, you may use it. You must accumulate 20 points over the course of the semester to receive full credit (10% of final grade); you will never lose points for posting, and a single post can earn as many as 5 points, however grading will be *very* tough so do not expect to earn 10 points in 4 posts unless your arguments are original, complete, precise, based on sound economic principal, but also insightful beyond the basic predictions of the economic models you've learned so far. I suggest some combination of the following strategies:

- **Quantity:** Post every week, multiple times if you have more than one thing to add to the conversation; note I will give 0 points for any post that does not add anything of substance to the conversation (e.g. gives opinion with no supporting rationale), uses uncited references, or repeats thoughts given by other classmates.
- **Quality:** Go deep, really try to get us to understand your perspective and the reasons you have for it. Moreover, make sure you've really thought through your perspective fully before posting to ensure I know you've done your homework.<sup>5</sup> Make sure your arguments are consistent with "abstract" economic decision making and your understanding of human nature.

## Short Assignments

Short assignments are another way for you to practice and learn the material. These will be given without prior notice and will either be assigned individually or as a group. Forming a study group from the beginning is one of the most effective ways to master the material and study for exams. Therefore, we will be forming teams and working on in-class assignments in these groups several times throughout the semester. The in-class assignments will feature one or two questions and will be graded on a 0 to 5 scale. If you don't finish the assignment in class it'll be due at the beginning of the following class. Occasionally individuals or teams can volunteer to demonstrate one of the problems from the previous days in-class assignment for an extra point. Attendance is required to receive credit for in-class assignments and you will receive a grade of zero if you are not present in class to participate in the team assignment. There will be no way to make-up team assignments if you miss them, however you are allowed to drop your lowest score.

## Clicker Questions

Approximately unannounced 12 times throughout the semester I will ask questions to be answered by Clicker. Your grade will be calculated directly by the number of answers you get right divided by the total number of questions asked throughout the semester. You may not work together *for Clicker questions*. Answering clicker questions is also how I will take attendance: I will take a headcount of the class to ensure only those present submit answers; questions will be asked at the beginning of class, so be on time!

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<sup>5</sup>pun intended

## Attendance

I will use the submission of a clicker answer as your “here” for taking attendance. You are only counted present and answer the clicker question at the beginning of class and stay until the end (unless I approve an explicit request to leave early). Clicker submissions will be paired with a headcount of the class to ensure one “here” per person, so do not submit an answer with an absent person’s clicker. If there are more answers than heads, the entire class will lose 1% of their final semester grade unless the culprit is uncovered<sup>6</sup>, in which case the absent individual and the accompish will both receive a 0 for their semester clicker grade and incur three additional absences. . You are allowed to have three absences without consequence. For each additional absence (4 or more) I will deduct 3% from your final grade in the course. For example, if you are absent five of the eight clicker questions, your maximum possible grade is a 94% or said another way if you earned an 85% in the course, your final grade would be a 79%. Individuals that are present for all clicker questions get a 3% bonus on your final grade in the course. All adjustments to grades are made after the the final class curve has been set.

## Exams

Exams will be comprised of multiple choice and short answer questions. Please bring a #2 pencil and a *non-programmable/-cell phone* calculator to every exam. The second midterm and the final exam are both cumulative to reenforce what you learned at the beginning. The dates are as follows:<sup>7</sup>

- Midterm 1: September 24 in class
- Midterm 2: October 27 in class
- Final: December 15, 10:30–1:00, location TBA (probably still in HLMS 199)

**If you have an 96% or higher in the course going into the Final Exam you will not be required to take the final exam and you will receive an A in the course.**<sup>8</sup>

## Policies

Please note the following policies, some of which are repeated elsewhere in this syllabus:

- **Lateness:** Even on days we do not have clicker questions, do not be late! I reserve the right to deduct from your grade for chronic lateness.
- **Calculators:** no programmable/graphing calculators; you may *not* use your cellphone as a calculator or any time during an exam (or class).
- **Cell phones:** Cellphone use is not permitted in class; if communication is urgent, please leave the classroom even to send a text message.
- **Computers:** you may not use a laptop or tablet in class without requesting permission from me first. Note, they will typically not be helpful for in class activities.
- **Notes:** I will provide slides used in class in advance. Do not waste time replicating them in class; instead, please print these and bring them to class to mark up with whatever additional

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<sup>6</sup>I have both a photo roster and a list of every student whose clicker submitted an answer, so don’t expect to get away with it.

<sup>7</sup>I reserve the right to reschedule either midterm at any point until the week it is scheduled.

<sup>8</sup>This is before adjusting your final course grade for absences as described above; e.g. if you have a 96% and 6 absences (i.e. 2 more than allowed), then your final semester grade would be an A- = 90% = 96% - 6%.

notes you choose to take during lecture that will help you better understand the tools and material we cover.

- **Late Work:** Homework is not turned in. Shorty assignments are jointly turned in by the group and due no later than the beginning of the following class, no exceptions. Posts to the online discussion will not count for credit if not made *before* the Monday 2 weeks after it was posted, unless a request is made and approved by me, or I choose to extend the conversation based on its merit.
- **Missed exams:** If you *must* miss an exam for reasons other than severe illness, you must inform me of your upcoming absence *as soon as you know you will be absent* (exam dates are posted above); if you miss an exam due to illness, you must contact me as soon as you know you are sick and provide a doctors note upon your return. I do not allow make-up exams except under very extreme circumstances. With an excused absence, I will choose to either reweight your other exams in the way of my choosing.<sup>9</sup> With an unexcused absence you will receive a 0 unless I choose to give some partial credit.
- **Grading Curves:** I tentatively intend to curve the average of each exam to a 77%. I will also curve the final class average to a 77% (about the department guideline of 2.75 GPA for the class) before making adjustments for attendance and any other extra credit I give during the semester. This means that although grades are semi-competitive with the curve, extra credit can only help the GPA of the class. I do not intend to directly curve any other assignments, though I reserve the right thereto.
- **Cheating:** Successful cheating is immoral and harms others due to the curved nature of grades and sending false information into society for your undeserving benefit; it is the ethical equivalent of literally stealing a little bit of GPA from all your classmates so you can “spend” it on credibility to get jobs for which you might actually be qualified if you studied, learned something, and built a work ethic instead of cheated. If I see you “rubberneck” on any test (i.e. look at another students answers) more than once all semester, you will have at least half and probably all your earned test grade deducted, regardless of whether you saw anything on their paper or used what you saw.<sup>10</sup> That’s me being lenient: if you rubberneck one too many times, or I otherwise definitively catch you cheating on any test or assignment, I will continue to gather evidence against you over the semester *but you will not be informed that you’ve been caught until after finals* and you receive a 0 for the semester and I’ve submitted to the ethics board. 1 strike, you’re out, no exceptions. But don’t do it because it is a cruel thing to do to your classmates and society, not because you will get caught if you do.

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<sup>9</sup>Most likely forward to exams you have not yet taken. Note, the exams tend to get harder and harder, so try not to be absent.

<sup>10</sup>It is soooo easy to catch you, too! Seriously, even if you think you are clever and wait until you see me look away, understand that I am more clever and will wait until you look at their exam to look to catch you cheating. Moreover, you’re multitasking under pressure and a time constraint while I’m relaxed, in a position of enforcement, able to read your nervousness in your body language clear as day, and solely focused on Cheater Hunting because it’s my favorite game in the whole world.

## Tentative Schedule

Week	Book	Topics	Notes
Aug 25	Ch 1, start Ch 14	Intro, Game Theory	
Sep 1	Ch 14, Ch 3	Consumer Preferences & Utility	No Class Mon!
Sep 8	Ch 3, Ch 4	Consumer Choice	
Sep 15	Ch 4, Ch 15	Risk & Information	
Sep 22	Ch 15, Midterm 1, recap	Demand & Supply Analysis	Midterm: Sep 24
Sep 29	Ch 2, Ch 5	Individual & Market Demand	
Oct 6	Ch 6	Inputs & Production	
Oct 13	Ch 7	Costs & Cost minimization	
Oct 20	Ch 8	Cost curves	
Oct 27	Midterm 2, recap, Ch 9	Competitive Markets	Midterm: Oct 27
Nov 3	Ch 9, Ch 10	Applications of Competitive Theory	
Nov 10	Ch 11	Monopoly	
Nov 17	Ch 11, Ch12	Monopoly & Capturing Surplus	
Nov 24			No Class!
Dec 1	Ch 12, Ch 13	Market Structure	
Dec 8	Ch 13, Final Review		Last Week
<b>FINAL EXAM: DEC 15, 10:30–1:00</b>			

## Other Stuff

**Students with disabilities** If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services in a timely manner so that your needs may be addressed. Disability Services determines accommodations based on documented disabilities. Contact: 303-492-8671, Willard 322, and [www.colorado.edu/disabilityservices](http://www.colorado.edu/disabilityservices). Disability Services' letters for students with disabilities indicate legally mandated reasonable accommodations. The syllabus statements and answers to Frequently Asked Questions can be found at [www.colorado.edu/disabilityservices](http://www.colorado.edu/disabilityservices).

**Religious Observance Policy** Faith is important. 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. If you have a conflict, please contact me at the beginning of the term so we can make proper arrangements.

**Classroom Behavior Policy** Students and faculty each have responsibility for maintaining an appropriate learning environment. Students who fail to adhere to such behavioral standards may be subject to discipline. Faculty has the professional responsibility to treat all students with understanding, dignity and respect, to guide classroom discussion and to set reasonable limits on the manner in which they and their students express opinions.

Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, 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. See policies at <http://www.colorado.edu/policies/classbehavior.html> and at [http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student\\_cod](http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_cod)

**Honor Code** Please see my cheating policy above.

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](mailto:honor@colorado.edu); 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 <http://www.colorado.edu/policies/honor.html> and at <http://www.colorado.edu/academics/honorcode/>

**Discrimination & Harassment Policy** Anything short of radical consent has the potential to cause tremendous harm. Proper consent is an explicit perpetually renegotiated agreement between individuals that should be enthusiastic on all sides. You are not entitled to anything more from any individual, which includes all interactions and conduct, be they physical, verbal, written, or subtextual. Any violation of consent is harassment, be it sexual or discriminatory. Consider others perspectives and realize they are almost certainly different than yours would be if you were in their shoes, and that their shoes are almost certainly different than you believe they are.

The University of Colorado Policy on Sexual Harassment applies to all students, staff and faculty. Sexual harassment is unwelcome sexual attention. It can involve intimidation, threats, coercion, or promises or create an environment that is hostile or offensive. Harassment may occur between members of the same or opposite gender and between any combinations of members in the campus community: students, faculty, staff, and administrators. Harassment can occur anywhere on campus, including the classroom, the workplace, or a residence hall. Any student, staff or faculty member who believes s/he has been sexually harassed 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 and the campus resources available to assist individuals who believe they have been sexually harassed can be obtained at: <http://www.colorado.edu/odh/>.