<u>Draft 8/22/24</u>

Economics 1010a: INTERMEDIATE MICROECONOMICS
SYLLABUS
Harvard College, Fall 2024

Lectures: Science Ctr Hall B; Monday, Wednesday, Friday, 10:30 am – 11:45 am
Instructor: Maxim Boycko mb1010a@gmail.com
Sections: weekly, optional but incentivized, schedule TBD
Co-Head Teaching Assistants:
   Administration: Andrei Comlosan-Pop (acomlosanpop@college.harvard.edu)
   Problem sets: James Chen (james_chen@college.harvard.edu)
Canvas Website: https://canvas.harvard.edu/courses/137746

Contents

Course Requirements and Grading

1. **Lectures:** the class meets at Science Center Hall B on MWF, 10:30-11:45 am. Class participation is not required but is strongly recommended and incentivized. Participation will be measured through Classroom Quizzes (CRQs). If you attend 75% of lectures or more, we will add 5 bonus points (on 100 scale) to your final numerical score.

2. **Weekly sections** connect course material presented in class to exams and weekly problem sets. Participation in Weekly Sections is not required but is strongly recommended and incentivized. If you attend 8/10 weekly sections or more, we will add 4 bonus points (on 100 scale) to your final numerical score.

3. **Weekly problem sets** (PSets) **and the math quizz**: 10 Multiple-Choice Quizzes (MCQs) and 8 Weekly Long Problems (LPs), each covering material from several preceding lectures and the previous section, as indicated in the Course Modules chapter below. Weekly MCQs and LPs will be released on Saturdays at 12:01 am and will be due the following Saturday at 11:59 pm. To calculate your final MCQ PSet score at the end of the semester, we will throw out your three lowest weekly scores and take the average of the remaining seven. To calculate your final LP PSet score, we will throw out your two lowest weekly scores and take the average of the remaining six. Also, during the second week we will offer a self-diagnostic math multiple choice quiz. The quiz is optional, but if you take it we will add 1 bonus point (on 100 scale) to your final numerical score.

4. **Two exams:** a midterm on the evening of Thursday, October 17 and a final exam, date TBD by the Registrar. Each exam includes a multiple-choice quiz and one/two long problems similar to the ones you will solve in the weekly problem sets. The midterm exam is optional but is strongly recommended and incentivized. If your midterm score is higher than your final exam score, the midterm will contribute 30% to the final numerical score and the final exam will contribute 40%. If it is the other way around, the final exam will contribute 70%.

5. To calculate your **final numerical score** (0-100 scale) the following weights will be applied: final MCQ PSet score 15%; final LP PSet score 15%; exams 70% (either midterm 30% and final exam 40%, or final exam 70%, as described above). Then up to 10 bonus points will be added based on your participation in lectures, sections, and the math quiz.

6. **Letter grades** will be assigned on the basis of final numerical scores. In previous years, students in the top half of the class received "A"s and "A-"s.

Course Policies

1. The final exam and the midterm should be completely your own work.

2. The optional midterm exam will be held on the evening of Thursday, October 17; there will be no alternative dates.

3. Since we have built-in accommodations for calculating lecture and section participation, we will not grant excuses for any missed lectures or sections, whatever the reason.

4. Since we have built-in accommodations for calculating final MCQ PSet scores and final LP PSet scores, we will not grant extensions for any late/missed weekly MCQs and LPs, whatever the reason.

5. Responding to a classroom quiz (CRQ) for another student, or from any location other than the classroom, will be treated as an honor code violation. Filling out section attendance form for another student will be treated as an honor code violation.

6. You should work on the weekly MCQs and LPs either by yourself, or with members of your Optional Study Group, but not with anybody else.

7. Chat GPT and similar tools are forbidden at the exams. You may employ Chat GPT and similar tools when solving weekly PSets, provided any such use is appropriately acknowledged and cited.

Prerequisites

1. **Mathematics:** Math 1a or Math 1b (or Math Ma and Math Mb or Math Qa and Math Qb). Math – explicitly or implicitly – is the language of economics and you will be at a disadvantage in 1010a if you don't have a good grip on the fundamentals of algebra, geometry, and calculus. Students who have not taken the courses above but still wish to take Econ 1010a should submit an enrollment petition to my.harvard and reach out to Ashraf Furqan furqanashraf@hks.harvard.edu, explaining their math background. During the first week we will run a math review session and offer a self-diagnostic math multiple choice quiz in the second week. The quiz is optional, but if you take it you will earn 1 bonus point (on 100 scale) to your final numerical score. If you score 6/10 or less on the quiz, please consider dropping 1010a this fall and taking additional math courses before enrolling again.

2. **Introductory microeconomics:** you should have a solid understanding of the fundamental supply and demand model. In my second lecture (L02), I will briefly review the basics of supply and demand. If you find this material unfamiliar, you will be at a disadvantage and I strongly advise you to study ASAP chapters 2 and 3 of the textbook or parts 2-5 of the free online MRU microeconomics course.

Lectures, Lecture Slides, and Lecture Recordings

Lectures are on MWF, 10:30-11:45 am, at Science Center Hall B.

Lecture slides will normally be posted on Canvas by 7 pm the day before class. Lecture slides cover all core material required for the exams.[1]

Lecture recordings will be posted on Canvas on the same day or the next day following the lecture.

Classroom Quizzes (CRQs)

To encourage student interaction and provide immediate feedback on your understanding of the material I will usually poll the class a couple times each lecture with questions about current material, and then display and discuss students' aggregate responses. Quiz questions will be in multiple-choice format.

Responses to CRQs will be used to measure participation in class. The _content_ of your answers to CRQs will _not_ be used in any part of the course evaluation. To determine lecture participation bonus points we will calculate your overall participation rate – the percent of answered questions throughout the course. Any rate above 75% will count as 5 bonus points; rates below 75% will be scaled proportionally to [0,5] interval.

CRQs will be administered using iClicker software. **Before the first class please set up an account with iClicker following instructions on Canvas.** iClicker subscription is available at a subsidized price of $5.99 for the entire semester. Please make sure to login to lectures with this account and only answer when you're physically present inside the classroom. If you login from a different account or from any place outside classroom, you will not get your CRQ points.   You can access iClicker mobile app via the App Store or Google Play, or use the iClicker student web app.

Please   refer   all   questions   related   to   iClicker   and   CRQ   to   Ashraf   Furqan furqanashraf@hks.harvard.edu

Please note Course Policies #3 and #5:

#3: _"Since we have built-in accommodations for calculating lecture … participation, we will not grant excuses for any missed lectures …, whatever the reason._

#5: _"Responding to a CRQ for another student, or from any location other than the classroom, will be treated as an honor code violation."_

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[1] Some of the material in the lecture slides is "supplementary": studying this material will broaden your understanding of microeconomics, but it will not be required at the exams or weekly PSets. Supplementary material is indicated by a green bar on the right side.

Weekly Sections

Weekly sections connect course material presented in class to exams and weekly problem sets.

Section participation is not required but is strongly recommended and incentivized. If you attend 8/10 weekly sections or more, we will add 4 bonus points (on 100 scale) to your final numerical score. If you attend fewer sections, your bonus points will be scaled proportionally to [0,4] interval.

If you enrolled in the course in April and have already been assigned a section that suits you, you do not need to take any further action. However, if you want to change your section or are enrolling in 1010a for the first time, you must fill out this form to indicate your section preferences by September 3rd. Only rank sections that do not conflict with your other classes or sections, since my.harvard will not allow you to simultaneously enroll in two course meetings. If you choose not to rank section preferences, you will be randomly assigned to an open slot. You will be able to change your section assignment after sections begin -- but you can only change it once, so make sure you 'shop' different sections to find one that you can consistently attend and with a TA that helps your learning. The teaching team bios on the website have some information about their teaching styles that you may find helpful. (These instructions are also on Canvas in the Sectioning Process page.)

If you want to go to another section, please send an email with your request to Ashraf Furqan furqanashraf@hks.harvard.edu not later than Saturday of the prior week. Please refer all questions related to sections and section attendance to Furqan.

Please note Course Policies #3 and #5:

#3: *"Since we have built-in accommodations for calculating … section participation, we will not grant excuses for any missed … sections, whatever the reason."*

#5: *"Filling section attendance form for another student will be treated as an honor code violation."*

Weekly Multiple-Choice Quizzes (MCQs)

Weekly MCQs, with 15 questions each, provide diagnostics of your overall understanding of the course material and are also essential training for the exams. As you answer quiz questions, it is fine to consult lectures slides, the textbook, or anything else that might be helpful. You are expected to work on the quizzes either by yourself, or with members of your study group, but not with anybody else. While the MCQ is open, TAs can answer clarifying questions, but cannot give further assistance.

Weekly MCQs will be available on the course webpage from **Saturday, at 12:01 am**. You may **start** the MCQ at **any time before 9:29 pm the following Saturday**; once you begin it, you will have **2.5 hours to complete** it. The weekly MCQs are graded automatically, and your scores will appear on the website the following week. Brief solutions to MCQs will be published on the course website the week after submission.

To calculate your final MCQ PSet score, we will throw out your three lowest weekly scores and take the average of the remaining seven.

Please refer all questions related to MCQs to James Chen (james_chen@college.harvard.edu).

Please note Course Policy #4:

#4: *"Since we have built-in accommodations for calculating final MCQ PSet scores …, we will not grant extensions for any late/missed MCQs …, whatever the reason."*

Weekly Long Problems (LPs)

Weekly LPs are crucial to learning how to work with microeconomic models. Besides, solving LPs is essential training for the midterm and the final exams.

Each LP will be available on the course website from **Saturday, at 12:01 am**. You should prepare your written solution as .pdf or .docx file. The deadline to complete uploading the file to the course website is the following **Saturday, at 11:59 pm**. **Attention: we strongly recommend that you start uploading your solution at least a couple of hours in advance of the deadline**. We will be unsympathetic to claims like "I could not complete the upload before the deadline because my connection (or the server) was slow." Also, please make sure that the file you uploaded to Canvas is not corrupted. If in doubt, please send an email to your grader with the solution file attached before the deadline.

You can work on an LP with members of your study group. However, make sure that you write up the solution entirely on your own. Remember: if you do not learn how to solve LPs on your own, you will face difficulties at the exams. Furthermore, TAs can help clarify LP questions and assist you as think about how to solve the problems, but they cannot 'check' your LP answers.

Although this is not required, please keep in mind that graders would appreciate if you use a word processor to prepare your written solution; writing formulas and drawing graphs by hand is fine.

LPs will be scored on "check-/check/check+" basis, coded on Canvas "1/2/3" respectively, while "0" means your work has not been submitted or is completely unsatisfactory. Your LP score and your grader's comments will be posted within 7 days after submission deadline. Please do not hesitate to contact your grader by email or at their office hours with questions about your solution or requesting additional comments: the main purpose of grading is to provide you with useful feedback. Solutions to LPs will be published on the course website the week after submission.

To calculate your final LP PSet score, we will throw out your two lowest weekly scores and take the average of the remaining six.

Please refer all questions related to LPs to Chelsea Wang chelseawang@college.harvard.edu

Please note Course Policy #4:

#4: *"Since we have built-in accommodations for calculating … final LP PSet scores, we will not grant extensions for any late/missed … LPs, whatever the reason."*

Optional Study Groups

Please consider joining (or forming) an optional study group with fellow students. There is a lot of evidence that interactions with peers make courses more fun and improves learning.

Students forming a study group are allowed to collaborate on weekly PSets, see details below. You can also attend sections and office hours together.

The following rules apply: a group can be formed at any time during the semester by sending an email to Sirinya Frankel sirinyafrankel@college.harvard.edu with all group member names and group member emails on CC to indicate consent by all parties; a student can join only one group; a group can have no more than five students; a student can leave the group at any time by sending an email to Sirinya and other group members.

If you have problems finding classmates willing to form a study group, we would be happy to help. Please reach out to Sirinya and she will connect you with other students looking for study group partners.

Textbook

The textbook for the course is Austan Goolsbee, Steven Levitt, and Chad Syverson "Microeconomics", 4th, 3rd, or 2nd edition; MacMillan. Please buy or rent a copy. Some available options are suggested on the website.

Course Modules

The table below connects course material covered in lectures, textbook chapters, sections, and weekly psets.

Module	Topic	Lectures	Textbook Chapters	Section	Weekly MCQ	Weekly LP
	Introduction	L01	1	NA	NA	NA
M1	Supply and Demand	L02--L03	2, 3, 15.1	S1	MCQ1	LP1
M2	Production, Cost, Supply	L04--L07	6--8	S2	MCQ2	LP2
M3	Consumer Choice and Demand	L08--L10	4--5	S3	MCQ3	LP3
M4	General Equilibrium	L11--L13	15	S4	MCQ4	LP4
M5	Time and Uncertainty	L14--L15	14	S5	MCQ5	NA
M6	Externalities and Public Goods	L16--L17	17	S6	MCQ6	LP6
M7	Market Power and Price Discrimination	L18--L20	9--10	S7	MCQ7	LP7
M8	Imperfect Competition and Game Theory	L21--L23	11--12	S8	MCQ8	LP8
M9	Asymmetric Information	L24--L25	16	S9	MCQ9	LP9
M10	Labor Markets	L26--L27	13	S10	MCQ10	NA
	Behavioral Economics	L28	18	NA	NA	NA

Ed Discussion

Ed Discussion is a place to post any kind of questions about the course, including lectures, psets, logistics, etc. You can choose to make your question anonymous. We are not requiring use of the platform but hope it will prove helpful throughout the semester.

You can access our Ed Discussion page from here or the left-side bar on Canvas. If you have problems registering, Andrei Comlosan-Pop (acomlosanpop@college.harvard.edu) can help.

To start a new discussion thread, please select a category and then click "New Thread."

Office Hours

The teaching team and I will hold weekly office hours (OHs). The schedule of OHs will be posted on the website; you can attend any of them.

Please use OHs proactively throughout the semester – and not just after major difficulties arise.

Questions concerning weekly problem sets and exams should first be taken up with the teaching team. But feel free to contact me if any of these questions are left unresolved.

The main purpose of my own OHs is to help you with lecture material, however, all questions about economics are welcome.

Canvas Website

The course website is at https://canvas.harvard.edu/courses/137746. Lecture slides, lecture recordings, weekly problem sets, course announcements, sections' schedules, your scores, and other useful information will be posted there.

Please refer all questions related to the website to Andrei Comlosan-Pop (acomlosanpop@college.harvard.edu).

How is 1010a Different from an Introductory Micro Course?

The goal of 1010a is to help students start thinking like economists about markets, government policies, and other social interactions. This economic way of thinking is rigorous and distinct from other approaches. While it is exciting and illuminating (or so economists claim), mastering it may be challenging.

1010a is more difficult than introductory microeconomics, requiring substantial effort throughout the semester. Though some material may be familiar, this course is more rigorous and mathematical, focusing on applying economic models to real-world problems. You'll learn to choose assumptions, solve models for equilibrium, and interpret the implications—key aspects of economic thinking.

1010a also covers a broader range of models and applications than most introductory courses, including topics like general equilibrium, indirect price discrimination, signaling, etc. However, don't expect it to be entirely different — after all, there is only one microeconomics.

Getting Help

1010a is a large course with many students so please be proactive to get help.

There are plenty of resources available, but most importantly feel free to contact directly any member of the teaching team when you need help.

The course website has – or should have! – reasonably complete information about the course. All questions are welcome on Ed Discussion forum, while remaining anonymous if you prefer. Links to additional resources (e.g., peer tutors) will be posted on the website.

Good luck with 1010a!

Teaching Team
[(see bios here)](#)

Instructor:
Maxim Boycko – mb1010a@gmail.com

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Course Calendar

Draft 1010a Calendar 2024

Date	Module	Day	Code	Lectures / Exams / Holidays	Sections/OH	Problem Sets	
4-Sep		W	L01	Introduction			
6-Sep		F	RS1	Math Review Session		M-MCQ* Out	
9-Sep	M1	M	L02	The Basics of Supply and Demand			
11-Sep	M1	W	L03	Supply and Demand: Advanced Applications			
13-Sep	M2	F	L04	Production		PS1 out	M-MCQ Due
16-Sep	M2	M	L05	Cost Minimization	S1: Supply and Demand		
18-Sep	M2	W	L06	Cost Curves			
20-Sep	M2	F	L07	Market Supply		PS2 out	PS1 due
23-Sep	M3	M	L08	Consumer Choice: Setting the Problem	S2: Production, Costs and Market Supply		
25-Sep	M3	W	L09	Consumer Choice: Solving the Problem			
27-Sep	M3	F	L10	Consumer Demand		PS3 out	PS2 due
30-Sep	M4	M	L11	General Equilibrium 1	S3: Consumer Choice and Demand		
2-Oct	M4	W	L12	General Equilibrium 2			
4-Oct	M4	F	L13	General Equilibrium 3		PS4 out	PS3 due
7-Oct	M5	M	L14	Time and Investment	S4: General Equilibrium		
9-Oct	M5	W	L15	Risk and Insurance			
11-Oct		F	GL1	Antras			PS4 due
14-Oct		M	UH	Indigenous Peoples' Day	OH: Midterm Review		
16-Oct		W	RS2	Midterm Exam Review Session			
17-Oct		Thu	ME	Midterm Exam, covers L02-L13		PS5** out	
21-Oct	M6	M	L16	Externalities	S5: Time, Investment, Risk, Insurance		
23-Oct	M6	W	L17	Externalities, cont'd; Public Goods			
25-Oct		F	GL2	Enke		PS6 out	PS5 due
28-Oct	M7	M	L18	Market Power	S6: Externalities; Public Goods		
30-Oct	M7	W	L19	Market Power, cont'd; Price Discrimination			
1-Nov	M7	F	L20	Price Discrimination, Cont'd		PS7 out	PS6 due
4-Nov	M8	M	L21	Imperfect Competition	S7: Market Power; Price Discrimination		
6-Nov	M8	W	L22	Imperfect Competition, Cont'd; Game Theory 1			
8-Nov	M8	F	L23	Game Theory, cont'd		PS8 out	PS7 due
11-Nov	M9	M	L24	Asymmetric Information 1	S8: Imperfect Competition; Game Theory		
13-Nov	M9	W	L25	Asymmetric Information 2			
15-Nov		F	GL3	Frieden		PS9 out	PS8 due
18-Nov	M10	M	L26	Labor Markets 1	S9: Asymmetric Information		
20-Nov	M10	W	L27	Labor Markets 2			
22-Nov		F		Reserved		PS10** out	PS9 due
25-Nov		M	GL	Cutler			
27-Nov		W	UH	Thanksgiving	No section, no OH		
29-Nov		F	UH	Thanksgiving			
2-Dec		M	GL	Reserved	S10: Labor Markets		
4-Dec		W	L28	Behavioral Economics			PS10 due
TBD			RS3	Final Exam Review Session	OH: Final Exam Review		
TBD			FE	Final Exam			

Color Legend

Course module	Guest lecture / Reserved
Course module	Exam
Alternating shades of blue separate consequent modules	University Holiday

* M-MCQ is the optional math MCQ

** Both PS5 and PS10 will have only an MCQ, no LPs