

Economics 310-1: MICROECONOMIC THEORY



Northwestern University ♦ Fall 2019

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Kellogg Global Hub 3467

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Class Meetings, Attendance and Communication

We will meet 1:00 – 1:50PM on Mondays, Wednesdays & Fridays in Tech Lecture Room 2 (LR2). Refer to the attached schedule for important calendar dates. Although attendance is not mandatory, it is expected, and some material will be presented only during class or section (even if most of the notes are posted). If you do miss class, it is your responsibility to track down handouts, notes or any other information (especially regarding exams) you may have missed. When making your rational attendance choice, remember secondhand notes may not be clear or complete, lectures are not repeated in office hours, and much can be learned from our collective classroom experience. Your best way to contact me is e-mail, which I check regularly; please use ECON 310-1 in your subject line. Check Canvas and your NU e-mail daily for announcements and materials.

Office Hours

I will usually be available for drop-in office hours, though I may add other hours and announce changes on Canvas. My office hours will be 9:30 – 11:00AM and 1:00 – 2:00PM on Tuesdays in KGH 3467 (also by appointment). In office hours, you may find groups of students of all levels discussing problems (from the textbook, problem sets or old exams); students in the past have found this collaborative approach to learning helpful. I'm also happy to have one-on-one conversations. Office hours are also a time to talk about the ECON major, careers, NU life, and whatnot.

Teaching Assistants and Discussion Sections

Our four graduate teaching assistants will lead weekly 50-minute discussion sections at 4:00PM or 5:00PM in the rooms listed below. Sections are not required, but I expect you to attend one of the eight sections beginning the second week of class. In typical discussion sections, the TAs will build upon problems you have previewed, present original material, review key ideas, discuss recent or upcoming exams, and/or answer your questions. Each TA will also hold office hours in the Kellogg Global Hub; their particular office-hour rooms and an updated office hours schedule will be posted to Canvas. Feel free to attend any TA's office hours that fit your schedule. The TAs will also lead review sessions & simulations before the exams.

<i>Name</i>	<i>Section Rooms</i>	<i>E-mail @u.northwestern.edu</i>	<i>Office Hours in KGH</i>
Marie Decamps	4PM on Tues @ TCH A110 and 5PM on Tues @ TCH LR5	mldecamps	Mon 11:00 – 12:30 @ 3198 Wed 5:30 – 7:00 @ 3496
José Flor-Toro	4PM on Thurs @ TCH M152 and 5PM on Thurs @ TCH M345	joseflortoro	Mon 4:30 – 6:30 @ 3496 Thurs 9:00 – 10:00 @ 3496
Guillaume Gex	4PM on Tues @ UNV 102 and 4PM on Thurs @ UNV 102	GuillaumeGex2023	Tues 2:00 – 3:30 @ 3198 Fri 9:30 – 11:00 @ 3198
Ahnaf Rafi	5PM on Tues @ TCH M345 and 5PM on Thurs @ HRS L07	AhnafRafi2023	Mon 9:00 – 11:00 @ 3496 Fri 11:00 – 12:00 @ 3198



Marie:



José:



Guillaume:



Ahnaf:

Peer-Guided Study Groups – Registration Required for this Quarter-Long Opportunity

Peer-Guided Study Groups (formerly AMP and GSW) offer peer-led academic support in a small-group setting for students enrolled in this course. If you join the program, you will meet weekly with about 5 to 8 other students and a peer facilitator – a student who has already taken and done well in ECON 310-1. During the two-hour weekly sessions (Mon 6-8PM or Wed 5-7PM), students review concepts, work through practice problems, raise questions, and work together to develop answers. Past participants report that this program helped them stay on track, solidify their understanding of course concepts, and increase their confidence – all in a comfortable atmosphere. Students register for the full quarter on CAESAR and attendance is expected weekly. Study Group sessions are listed below course lecture and discussion sections (e.g., ECON 310-SG-1 Peer-Guided Study Group: Microeconomics I). Contact Jamila at jamila.anderson@northwestern.edu or Borislava at borislava.miltcheva@northwestern.edu with any questions.

Drop-In Peer Tutoring (No Appointment Needed)

Drop-in tutoring sessions are a friendly, collaborative environment where you can come to get help (from a peer leader who has done well in the course) or just to study, either alone or with others. Sunday sessions also offer snacks. No registration necessary. Sessions are held Sundays from 3-5PM in the Shepard Engagement Center (room B25), Wednesdays 8-10PM in Shepard, and Thursdays 8-10PM at 560 Lincoln.

Textbook, Readings and Equipment

- David Besanko and Ronald R. Braeutigam (2014) Microeconomics, 5th edition, John Wiley & Sons, ISBN 978-1-118-57227-6, www.wiley.com/college/besanko

New, used, and digital versions of the textbook are usually available at the Norris Center Bookstore for purchase or rent and the University (Main) Library's main circulation desk has three copies on reserve. B&B is also used by Kellogg MBAs and other 310-1 instructors so there are many used copies nearby (or on Amazon, etc.). We will follow the 5th edition closely, but the 4th edition is a reasonable substitute because it has identical end-of-chapter problems (you will want to do as many of these as possible!). I will occasionally post additional readings (e.g., recent articles from the business press) on Canvas. Because you will often need to draw graphs, you should obtain a straight edge (6 inches is sufficient) and perhaps multi-color pens. You may not use calculators or other electronic devices on exams.

Prerequisites

You should have completed (or at least be familiar with) ECON 201 (Introduction to Macroeconomics), ECON 202 (Introduction to Microeconomics), and MATH 220 (Differential Calculus). We explore selected ECON 202 topics at a deeper level, introducing and using straightforward calculus only as needed.

Course Description

Picking up where ECON 202 left off, this course uses mathematical models to analyze the behavior of optimizing (but constrained!) consumers and producers in market economies, thereby providing insights regarding the fundamental inner workings of markets (i.e., the origins of supply and demand). We will also use equilibrium analysis and comparative statics to understand markets characterized by competition, monopoly or monopsony. ECON 310-1 is a course primarily for economics majors and minors, so it will emphasize the development and application of economic theory.

Learning Outcomes

During this course you will use three basic tools of economic analysis (equilibrium, constrained optimization, and comparative statics) to model and analyze a variety of economic problems. After completing this course you will be able to:

1. Utilize supply and demand curves to analyze equilibrium, the efficient allocation of resources, and the effects of various forms of government intervention in inherently competitive markets.
2. Characterize a consumer's satisfaction-maximizing choices for goods given a limited budget, derive a consumer's demand curve for a product, and determine how a change in the price of a good affects a consumer's welfare.
3. Characterize the technology available to a firm, using production functions, cost curves, and supply curves.
4. Analyze and compare market outcomes in a perfectly competitive market, a monopoly market and, if time permits, a monopsony market.

Teaching Methodology and Philosophy

You will have many opportunities to engage the material, including reading the textbook, attending and actively participating in lectures and discussion sections, working on practice exercises or problem sets either individually or in a group, taking practice exams, and attending office hours. The **readings** are meant to familiarize you with vocabulary and concepts, inspire questions, and give you a chance to ponder the material before I present similar ideas in different packaging. I recommend reading the relevant textbook chapter both before and after class to preview and then review the material. **Lectures** will typically take the form of PowerPoint presentations, though I will often ask you to work out short problems in class with a friend. Posted lectures may include extra slides for reference or omit some slides. During a typical **discussion section**, a TA will work out selected problems, present original material, discuss some of the ideas from lecture, or field some of your questions. Our textbook features hundreds of end-of-chapter **practice exercises** that enable you to develop your economic reasoning skills at your own pace. I will post solutions to many of these problems, reserving the others for problem-solving sessions and discussion sections. I encourage you to try as many of these as possible. Ideally, work them on your own, meet with classmates to compare answers, and ask remaining questions by email. Each week I will distribute an ungraded **problem set** with about five exercises for you to work on individually or in groups. Problem sets will give you a chance to “get your hands dirty” and to prepare for both discussion sections and exams. Usually I will assign problems on material I have covered, but occasionally I may ask you to read ahead and practice learning directly from the book. I encourage you to collaborate with others as you practice applying our tools, but warn you that repeated free riding does not prepare you very well for the exams. For a simple test of your knowledge, try explaining a problem and its solution to a friend or try constructing some problems (with answers) on your own. The **exams** will test your understanding of microeconomic theory, including your ability to apply theory to economic problems. You should therefore focus on the systematic reasoning we are trying to develop, rather than on mere memorization. Economics does NOT lend itself to pulling all-nighters before exams. Later analysis relies on principles covered earlier, so the exams are cumulative implicitly, if not explicitly. Class is much more enjoyable when there is active involvement by many students, so be prepared to speak up now and then, and to **participate** in a Goldilocks sort of way – neither too little nor too much. The TAs and I both hold regular **office hours**, and these are good times to talk about specific questions, general intuition, course registration, the ECON major, careers, NU life, etc. You are welcome to attend any of our office hours. If you feel you are struggling, seek help early – there are many resources in place to help you. It is both my desire and job to help you learn, so please let me know if anything is frustrating your efforts so that I can try to remedy the situation. Part of your job as a responsible adult is to monitor your progress and seek help from your peers, the TAs, or me when necessary. Often it doesn’t take much to get back on track if you take the first step by asking for assistance from a peer, TA, or me.. You should adopt an active approach to learning: once you think you understand the material from the readings and lectures, work problems on old exams for practice, try the exercises at the end of the chapters, and ask yourself if you see how all of the material fits together. Finally, while ECON 310-1 emphasizes the development and application of microeconomic analysis, I want you to leave this class possessing not only new theoretical skills, but also the ability to (1) understand the strengths and limitations of economic models, (2) use economic thinking to improve personal decisions, (3) feel more comfortable interpreting the media’s jargon and discussing real-world economics issues, and (4) pursue additional study in this area.

Evaluation

Your course grade will be assigned based on your performance on three exams. The relative weights of the graded components are as follows:

<u>COMPONENT</u>	<u>IMPORTANT DATES</u>	<u>POINTS</u>
<i>Examination I</i>	<i>Wednesday, October 23 (in class)</i>	<i>100</i>
<i>Examination II</i>	<i>Wednesday, November 13 (in class)</i>	<i>100</i>
<i>Final Examination</i>	<i>Thursday, December 12, 9:00 – 11:00AM</i>	<i>150</i>
	<i>TOTAL</i>	<i>350</i>

Exams: The course is divided into three units, each followed by an exam; the final exam also contains “big picture” questions so I can assess your overall mastery of the course. Exams will feature a diversified portfolio of questions and topics designed to test your ability to apply economic theory. Due to the substantial difficulties of administering more than three examinations, there will be no make-up exams. If you miss one of the midterm exams for some reason, then I will reweigh the other midterm and your final exam; the new weights would be 40% on the midterm and 60% on the final. I will neither drop a score for an exam that you have taken nor arbitrarily reweight exams. You must take at least one midterm exam and the final exam to pass the course.

Final Exam Policy

WCAS policy: “The College forbids administering a final examination to individual students in advance of the assigned time. You are required to take the final examination at the designated time. If you are unable--for sufficient reason--to take a final examination at the designated time, you should apply for an incomplete in the course.” Since University policy requires us to administer the final exam at the appointed time, **PLEASE DO NOT ASK TO TAKE THE FINAL AT ANY HOUR OTHER THAN THE ONE ASSIGNED BY THE REGISTRAR.** Do not ask to have a colleague proctor your exam at the regular time in, say, New York City; it is very difficult to assure and verify that you are taking the exam in an appropriate setting. You should recognize the slippery slope problem here about being fair to all students while upholding University standards. In the unlikely case that you cannot take the final exam at the regular time and place, I will assign an incomplete grade of “X” (which is what you would receive if you were ill and didn’t show up for the final). If the WCAS Dean’s office and I agree to the “X” option, we will schedule a make-up exam in the near future, typically at the beginning of the next quarter. You can do the paperwork by visiting the advisors at 1908 Sheridan Road.

Drops or Withdrawals

The Registrar’s deadline for dropping the course without any advisor’s approval is Friday, November 1. You can do this using CAESAR up until 11:59PM, though the Registrar’s Office closes at 5:00PM. It may be possible for you to withdraw from the course as late as Wednesday, November 27, the day before Thanksgiving; to do so, you must communicate with your advisor in your home school and complete the applicable withdrawal petition procedure by 5:00PM on that date.

Grades: I grade to the curve rather than using an absolute percentage standard. In my experience, the average grade in ECON 310-1 has been a B (or about a 3.0 GPA). I take into account performance trends and difficulty of the exams. **Re-grading:** Occasionally, a student finds or suspects a midterm grading error. If this is the case, please submit a written request to me by email within one week after the graded exams are released.

Academic or Athletic Accommodation

Any student requesting accommodations related to a disability or other condition is required to register with AccessibleNU < accessiblenu@northwestern.edu OR 847-467-5530 > and provide professors with an accommodation notification from AccessibleNU, preferably within the first two weeks of class. I recommend that you use accommodations for which you qualify. I will reserve a quiet room close to our regular classroom for each exam, but you may also take exams at the ANU Office if you register in advance. Students on Northwestern’s varsity athletic teams who expect an academic conflict due to an official NCAA event should ask Eileen O’Rourke in Academic Services < eileen.orourke@northwestern.edu OR 847.491.8805 to contact me on your behalf as soon as possible. For all types of accommodation, all information will remain confidential. Please make your plans early and keep me informed; the 24 hours before an exam are often very busy and I may not be able to handle last-minute accommodation requests.

Professionalism and Consumer Electronics Policy

I expect a reasonable degree of *professionalism*, broadly defined to include those things that generally contribute to an environment that is conducive to learning by being courteous to us and to your classmates. Do things that generate positive externalities, such as attending, smiling, participating and helping your peers. Avoid generating negative externalities in the classroom via tardiness, naps, noisy chatter, offensive language, etc. (Potential employers tend to frown upon these inappropriate behaviors, so now is a fine time to smooth out some of the rough spots.) Please plan your restroom stops around class, and if you must enter or leave during class, do so unobtrusively. During exams, please refrain from potentially distracting behaviors (e.g., pen-clicking, coughing). Serious disruptions will not be tolerated. The use of electronic gizmos in the classroom can be a nuisance to others, so please do not be disruptive. Students are welcome to use a laptop computer in class to take notes (or follow along with lecture note PDFs) if they so wish, but you should know pedagogical research shows that you learn better by taking notes by hand! Students should not make or receive phone calls, surf the web, play games, send or receive text messages, or check or send e-mails during class. Mobile devices should have the ringer turned off and be placed in pockets or backpacks. If this becomes a problem, we may have to implement a “No screens” policy. ☺ No electronic devices (calculators, smartphones, headphones, etc.) may be used during exams.

Academic Integrity

Academic Integrity is taken very seriously at Northwestern. Students are responsible for reading and understanding Northwestern’s Academic Integrity policies. All suspected violations of academic integrity

will be reported to the Weinberg College Dean's Office. These include: cheating, plagiarism, fabrication, unfair advantage, unauthorized collaboration, and aiding and abetting of academic dishonesty. Students found in violation of academic integrity may receive a zero on the assignment or a failing grade for the course, and may be suspended or permanently expelled from the University. See the WCAS website on academic integrity and Academic Integrity: A Basic Guide for more information.

Advertising, Survey, and Paperwork Storage Policies

I am frequently approached by students, researchers, and organizations interested in using scarce class time to administer surveys, recruit applicants or volunteers for experiment, etc. However, there are many alternative means of communicating or collecting information. If you have a message you would like to deliver to the class, please package it as a PDF file or a URL and if it is appropriate, I can post it on Canvas for students to view if they are interested. I plan to use Crowdmark to streamline the grading and recording of your exams. We convert your paper exam to a PDF, insert grading comments, automatically send your score to Canvas, and then allow you to peruse a digital version of your graded exam. In the unlikely case we cannot use Crowdmark, the TAs will have your graded exams and will return them to you in discussion sections. You are responsible for picking up these items in a timely manner and monitoring your scores. To respect student privacy, we will return exams only to their owner. Unclaimed midterms are shredded shortly after the end of the quarter, but I keep final exams on file for one year.

Reading Assignments

The following schedule is provided as a guide and may be subject to slight changes as our pace naturally varies. Each lecture will make apparent our progress in the textbook. Please mark on your calendars the important exam and due dates, which will only change under extreme circumstances and with sufficient warning. Do your best to keep up with the reading assignments, which will complement the lectures, and as you read, jot down your questions. If you find yourself getting bogged down in math, focus on the intuition and main ideas, then address the detailed economic methods later. Remember that economics tends to be cumulative in nature, so regularly ponder how each chapter adds to previous chapters.

For the most up-to-date information as we move through the course, check Canvas.

Schedule of Planned 310-1 Topics, Recommended Readings, and Important Dates

Week #	Dates	Lecture Topics and Important Dates <i>Recommended Chapters in Besanko & Braeutigam – Microeconomics 4/e or 5/e</i>
1	Sept 25, 27	UNIT 1: Consumer Theory Introduction, Logistics; 3 Tools for Analyzing Economic Problems Supply & Demand Analysis with Comparative Statics; Elasticities <i>No TA sections this week!</i> <i>Chps. 1-2</i>
2	Sept 30, Oct 2, 4	Consumer Preferences (Utility, MRS) <i>5:00PM Monday is the Add Deadline</i> Indifference Curves (Cobb-Douglas, Perf-Substitutes, Leontief, Quasi-Linear) Budget Lines, Optimal Consumer Choice, Corner Solutions <i>Chps. 3-4</i>
3	Oct 7, 9, 11	Composite Goods & Fancy Budget Constraints Revealed Preference (reverse-engineering consumer preferences) Theory of Demand: Generating Demand Curves (via P- and I-expansion paths) <i>Chps. 4-5</i> <i>5:00PM Friday is the P/N Deadline</i>
4	Oct 14, 16, 18	Income & Substitution Effects (for our four most important utility functions) Welfare Analysis using Consumer Surplus or Compensating Variation Wrap-Up and Review Unit 1 <i>Chp. 5</i>

5	Oct 21, 23, 25	<p><i>Optional Exam Simulations held Sun & Mon, Oct 20-21, 6-8pm @ Tech LR2</i></p> <p>UNIT 2: Producer Theory Production (Inputs, Marginal Product, Isoquants, MRTS) EXAMINATION 1 – Wednesday, October 23 (Covers B&B Chps 1-5) <i>Accessible NU students should report to Tech LG68 for a 12:30 start (or arrange to take the exam at 2122 Sheridan)</i> Production Functions (Special Cases, Returns to Scale) <i>Chp. 6</i></p>
6	Oct 28, 30, Nov 1	<p>Costs and Cost Minimization (Concepts, Input Demands, Isocosts, Duality) LR vs SR Cost Curves; Cost Relationships (Totals, Averages and Marginals) Long Run Cost Envelope, Economies of Scale <i>Chps. 7-8</i> <i>5:00PM Friday is the Drop Deadline</i></p>
7	Nov 4, 6, 8	<p>Perfect Competition: Choosing Outputs or Inputs Shutdown, SR Supply, Entry, Exit Perfect Competition: Long Run Equilibrium, Producer Surplus <i>Chp. 9</i></p>
8	Nov 11, 13, 15	<p><i>Optional Exam Simulations held Sun & Mon, Nov 10-11, 6-8pm @ Tech LR2</i></p> <p>Wrap-Up and Review Unit 2 EXAMINATION 2 – Wednesday, November 13 (Covers B&B Chps. 6-9) <i>Accessible NU students should report to Tech LG68 for a 12:30 start (or arrange to take the exam at 2122 Sheridan)</i></p> <p>UNIT 3: Competitive and Monopolized Markets Monopoly Primer <i>Chp. 11</i></p>
9	Nov 18, 20, 22	<p>Monopoly Applications Monopsony The Invisible Hand: Gov't Intervention in Competitive Markets (Price Ceilings and Floors, Taxes and Subsidies, Production Quotas) <i>Chp. 10</i></p>
10	Nov 25	<p>Government Intervention: International Trade and Agricultural Programs <i>No TA sections this week. No class meetings on WED or FRI.</i> ☺ <i>Happy Thanksgiving!</i> ☺ <i>5:00PM Wednesday is the Withdrawal Deadline</i></p>
11 Reading	Dec 2, 4, 6	<p>Wrap-Up Unit 3 & Course (MON) <i>TA sections will meet on Tuesday & Thursday</i> <i>Optional review sessions at regular class times on Wednesday & Friday</i></p>
12 Final	Dec 12	<p>FINAL EXAMINATION – Thursday, December 12th, 9:00 – 11:00AM (This cumulative exam covers B&B Chps 1-11. Please do not ask to take the final at another time.)</p>

A syllabus is a contract between the instructor and students that provides information about the course and provides a commitment device to prevent arbitrary behavior. I will assume that you are familiar with, and agree to, all policies in this contract. If you object to, or do not understand, any part of this contract, please contact us immediately.