

# Economics 410

## Intermediate Theory: Price and Distribution

### Fall 2018

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<b>Instructor:</b>	Michelle Sheran-Andrews
<b>Email:</b>	sheran@unc.edu
<b>Class Meeting:</b>	MWF 9:05am – 9:55am (Section 001) MWF 10:10am – 11:00am (Section 002)
<b>Classroom:</b>	FedEx Global Education Center 1015
<b>Office Hours:</b>	Mondays 2:00-3:30pm and Tuesdays 9:30-11:00am in the EconAid Center in Gardner 009. These are open office hours. I use <i>My Digital Hand</i> (instructions posted in the EconAid Center) to organize students into a queue upon arrival. For personal concerns (i.e. <b>not</b> for questions about course material), I offer individual appointments; schedule at <a href="http://calendly.com/sheran">http://calendly.com/sheran</a> .
<b>TA Office Hours:</b>	6 Graduate TAs will hold office hours in the EconAid Center throughout the week. See the <i>Overview</i> page of our <i>Sakai</i> site for a complete schedule. Note that you do not have to attend your recitation TA's office hour; you may go to any TA's office hour with questions.
<b>Office:</b>	200D Gardner Hall
<b>Prerequisite:</b>	ECON 101, and one of MATH 152, 231, STOR 112, or 113
<b>Website:</b>	<a href="http://sakai.unc.edu">http://sakai.unc.edu</a>

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## 1. Course Description

The purpose of this course is to explore the foundations of Microeconomic theory, focusing on the behaviors of consumers, producers, and the interaction of these agents in the marketplace. The organization of markets and its implications for firm behavior and market equilibrium are also examined. This course is divided into the following three topics:

- *Consumer theory*: How households make decisions in the face of scarcity and how these decisions vary in response to changes in the economic environment.
- *Firm theory*: How firms make decisions in the face of scarcity and how these decisions vary in response to changes in the economic environment.
- *The organization of markets*: How perfectly competitive, monopolistic, monopolistically competitive, and oligopolistic markets are organized and the outcomes of these markets.

The principles covered in this course are building blocks. These building blocks can and will be used in elective courses to analyze many specialized topics. This material cannot be learned passively. A major goal of this course is to teach you to "think" in a manner beyond fact recall. Active thinking and problem solving are essential. *Microeconomic theory is a tool learned best by use!*

## 2. Class Expectations

- *Regular attendance* is expected and strongly encouraged. If you miss a class, it is your responsibility to get the notes from a classmate and attend office hours or a help session with any questions. Keep in mind that while my PowerPoint slides are posted on Sakai, much of the material covered in class is not on these slides.
- You should spend a *minimum* of 5 hours per week studying for ECON410 outside of class. It is highly unlikely that studying “a lot” the week before the exam will make up for not studying enough in the weeks preceding the exam. Most ECON410 students realize that this just doesn’t work in economics or with the way in which I teach and test.
- Seek help immediately if you are doing all of the required work and are still having difficulty with the material. Do not let it build up. You have a team of one instructor, 6 graduate TAs, and 10 undergraduate learning assistants all ready to help you!

## 3. Class Conduct

- Please do not talk excessively to your neighbors during class except when permitted to discuss a problem. It can distract the students around you. It also really distracts me ☹️
- Laptops are *strongly discouraged*. If you feel that using a laptop is the most effective way for you to take notes, I request that you **sit in one of the two back rows** to avoid distracting your peers. In deciding whether you’d like to use a laptop, please consider the following.
  1. In general, note-taking by hand (on paper or a tablet) leads to higher retention than typing notes on a computer.  
<http://www.theatlantic.com/technology/archive/2014/05/to-remember-a-lecture-better-take-notes-by-hand/361478/>.
  2. Multitasking on an electronic device during lectures has been shown to decrease not only the grades of the multitaskers, but also the grades of the people seated around them. <http://www.cbc.ca/news/technology/laptop-use-lowers-student-grades-experiment-shows-1.1401860>

## 4. Resources

### Textbook

The recommended textbook is *Microeconomics* by David Besanko and Ronald Braeutigam. **You do NOT have to purchase the most recent version of this textbook.** You might find additional or alternative textbooks helpful in their treatment of the subject matter and the availability of extra problems. If you would like to check-out or purchase a different textbook, most any "Intermediate Microeconomics" textbook will have similar content, and older editions will likely be just as useful as newer additions. In addition, there are a variety of books on 2-hour reserve in the library.

## Poll Everywhere

Participation in Poll Everywhere requires that you have access to a cell phone texting plan or the internet. You must register with Poll Everywhere prior to our first poll on August 27<sup>th</sup>.

**IMPORTANT:** Registration is different this semester! All students, even those who have previously used Poll Everywhere, need to follow these instructions. Go to [poll.unc.edu](http://poll.unc.edu), click Student Account Registration and log in with Single Sign-in (SSO). You will no longer be required to enter your PIDs or cell phone information. If you respond to polls via text messages, you can register your cell phones at any time. After registering, you may then log in at [polleverywhere.com](http://polleverywhere.com) or using the Poll Everywhere mobile app. With either method, you will enter you official UNC-CH email address, select the Single-Sign-On link and enter your Onyen and Password. It is your responsibility to properly register. If you do not, your polls will not be counted. **Moreover, in-class polls are to be done in class, and it is a violation of the honor code to answer elsewhere.**

## Calculator

Only a very basic, non-programmable calculator is permitted during exams. If your calculator does not look like the two examples pictured below, it must be approved by me before an exam. *The calculator must obviously appear to be basic and non-programmable.* **NO EXCEPTIONS** will be permitted.



## Recitations Sessions

You are required to register for one ECON 410 recitation session. However, you may attend a recitation other than (or in addition to) the one for which you are registered. By registering for a recitation session, you will be assigned to a graduate TA. This graduate TA will be your first email contact for homework and content related questions. I view recitations as an important part of this course. Recitation attendance is highly encouraged and any material covered during recitation may appear on exams.

## Help Sessions

Undergraduate Learning Assistants (ULA's) will offer weekly help sessions on Monday and Tuesday evenings from 7-9pm in Greenlaw 101. Students may drop in during help sessions for any assistance with course content, including homework assignments.

## **Email Correspondence**

Homework and content related questions should first be sent to your recitation TA. If you do not get a satisfactory or timely response, please then email me at [sheran@unc.edu](mailto:sheran@unc.edu). All other course related questions, including grades, should be emailed to me directly. From Monday-Thursday, you should expect a response to your email within 24 hours. From Friday-Sunday and on holidays you should expect a response within 48 hours. Please note if the question is particularly complex, you might be redirected to office hours, a recitation session or a help session.

## **Piazza**

This semester almost 500 students are taking ECON 410 with me. Because I cannot give you all the individual attention you deserve, I ask that you become a community of scholars. To this end, we'll use Piazza, a free Q&A platform. The ULAs and I will be checking in through Piazza regularly, but it is expected that you will answer each other's questions. You are welcome to ask and answer questions about the *content* covered on homework assignments. However, you may not post direct answers or solutions to graded assignments. Sign up here for free at [piazza.com/unc/fall2018/econ410](http://piazza.com/unc/fall2018/econ410). If you have any technical problems with Piazza, please email [team@piazza.com](mailto:team@piazza.com).

## **PowerPoint Slides**

PowerPoint slides will be posted on Sakai *before* the material on the slides is covered in class. During class, I will not talk at a pace that allows you time to copy all the material on these slides. Thus, I strongly recommend that you print out (or copy by hand) these slides in advance. Further note that each class I will cover material that is not on these slides. Therefore, you should not view these slides as a substitute for note taking.

## **Accessibility Resources & Service**

UNC-Chapel Hill facilitates the implementation of reasonable accommodations for students with learning disabilities, physical disabilities, mental health struggles, chronic medical conditions, temporary disability, or pregnancy complications, all of which can impair student success. Students registered with the Accessibility Resources & Service (ARS) office may take their exams at ARS. Exams taken at ARS must be scheduled 3 full business days prior to the test / exam start time. It is the responsibility of students who take exams at ARS to ensure they do not exceed their allotted time limit. Please note that there will be a 10 percentage point penalty for each 5 minutes over the time limit.

## **EconAid Center**

The EconAid Center is located in Gardner 009. This is where office hours will be held, where students can work on their economics assignments individually or in groups, and where there will be free peer tutoring during the week. The EconAid Center is open from 8am to 8pm every weekday. A link to the EconAid's peer tutoring schedule is posted on the *Overview* page of our *Sakai* site.

## 5. Grades

Your course numeric grade will be calculated as the sum of your total points earned divided by 1000. At a minimum, I will follow a traditional 10 point scale, though the letter grade you are assigned will be based on a grading scale to be finalized *after* the final exam. I will provide feedback over the semester on how to interpret your scores so that you know how you are progressing in the course. **Please note there is and will be no extra credit.**

Graded Item	# Assigned	Points Each	Total Points
In-class Polls	30 (lowest 5 dropped)	2	50
Homework Assignments	11 (lowest dropped)	15	150
Midterm Exams	3	150	450
Final Exam	1	350	350
			<b>1000</b>

### In-Class Polls

Starting on Monday, August 27<sup>th</sup>, most classes will include one poll question administered through *Poll Everywhere*. You will receive 2 points for a correctly answered poll, 1 point for an incorrectly answered poll, and 0 points for an unanswered poll. I understand that you may not be able to participate in some polls because you might miss class, forget your polling device, and/or have a technical difficulty. However, missed polls cannot be made-up. This holds true regardless of your excuse (e.g. university/athletics commitment, job interview, sickness, technical malfunction, etc.). Don't worry because there will be 30 polls throughout the semester, and I will drop the lowest 5 polls.

### Homework Assignments

There will be 11 graded homework assignments. I will drop your lowest score. The first and last assignment will consist of 15 multiple choice question. All other assignments will consist of 5 multiple choice questions, 3 true/false questions, and 2 long-form questions. Your answers to the multiple choice and true/false questions will be submitted and graded through *Sakai*. Long-form answers will be submitted and graded through *Gradescope*. Specific submission instructions will be provided with each homework assignment. You are responsible for ensuring that your homework is properly submitted and clearly legible. Any part that cannot be read will be assigned a zero. Assignments are due by 5pm on the due date. There will be a 5% late penalty applied to all submissions received between 5:00pm and 5:15pm, and a 20% late penalty applied to all submissions received between 5:15pm and 6:00pm. No submissions will be accepted after 6:00pm. At 6:05pm on the day an assignment is due, an answer key will be posted on Sakai.

## **Midterm/Final Exam Policies**

There will be 3 midterm exams, each consisting of 5 multiple choice questions, 3 true/false questions and 2 long-form questions. There will be no makeup or early midterm examinations. If you must miss a midterm, you may be permitted to transfer its weight to the final exam. To qualify for this transfer, you must contact me **before** the start of the exam and present me with an acceptable explanation. You are required to support your explanation with documentation within 2 business days of the exam. Acceptable reasons for missing a midterm include a documented medical illness that prevents you from taking the exam, a death in your immediate family, or a documented mandatory court date. You may not transfer the weight of more than one midterm to the final exam.

Per UNC rules, you can only take the final exam at an alternative time if you present me with a pink slip from an advisor verifying that you have at least 3 exams in a 24 hour period. If you present me with a pink slip **before the last day of classes**, you can take the final exam with the other section. Each section will receive a different final exam, and you will be eligible only for the curve (if there is one) applied to the section with which you took the final exam. If you miss the final exam and do not have an excuse from the Dean, you will receive a score of 0 on your final.

## **Regrade Requests**

All regrade requests must be made through *Gradescope* within 1 week of the date the assignment's grade is posted. There will be no exceptions to this rule except in extraordinary circumstances. Regrade requests will be addressed by the TA who graded the assignment. If you are unsatisfied with how your regrade request is resolved, please then contact me directly either via email or by appointment.

## Course Schedule

DATE	TOPIC AND READING ASSIGNMENT	HOMEWORK	RECITATION
Wednesday, August 22	Introduction		<i>No Recitation</i>
Friday, August 24	Math review (Mathematical Appendix)	HW #1 assigned	<i>No Recitation</i>
Monday, August 27	Consumer Theory: Preferences and Utility (Chapter 3.1 - 3.3)		Math Review
Wednesday, August 29	Consumer Theory: Preferences and Utility (Chapter 3.1 - 3.3)	HW #1 due	Math Review
Friday, August 31	Consumer Theory: Preferences and Utility (Chapter 3.1 - 3.3)	HW #2 assigned	Math Review
Monday, September 3	<b>LABOR DAY- no class</b>		<i>No Recitation</i>
Wednesday, September 5	Consumer Theory: Budget constraints (Chapter 4.1)	HW #2 due	<i>No Recitation</i>
Friday, September 7	Consumer Theory: Budget constraints (Chapter 4.1)	HW #3 assigned	<i>No Recitation</i>
Monday, September 10	Consumer Theory: Constrained Utility Maximization (Chapter 4.2 and Chapter 4 Appendix 1)		Perfect Complements and Substitutes
Wednesday, September 12	Consumer Theory: Constrained Utility Maximization (Chapter 4.2 and Chapter 4 Appendix 1)	HW #3 due	Perfect Complements and Substitutes
Friday, September 14	Consumer Theory: Constrained Utility Maximization (Chapter 4.2 and Chapter 4 Appendix 1)	HW #4 assigned	Perfect Complements and Substitutes
Monday, September 17	Consumer Theory: Demand (Chapter 5.1)		Corner Solutions
Wednesday, September 19	Consumer Theory: Demand (Chapter 5.1)	HW #4 due	Corner Solutions
Friday, September 21	Consumer Theory: Demand (Chapter 5.1)		Corner Solutions
Monday, September 24	Consumer Theory: Income and Substitution Effects (Chapter 5.2)		<i>No Recitation</i>
Wednesday, September 26	<b>Midterm #1</b>		<i>No Recitation</i>
Friday, September 28	Consumer Theory: Income and Substitution Effects (Chapter 5.2)	HW #5 assigned	<i>No Recitation</i>
Monday, October 1	Consumer Theory: Income and Substitution Effects (Chapter 5.2)		Midterm 1 Review
Wednesday, October 3	Consumer Theory: Extensions (Chapter 4.3, Chapter 4 Appendix 2, and Chapter 5.5)	HW #5 due	Midterm 1 Review
Friday, October 5	Consumer Theory: Extensions (Chapter 4.3, Chapter 4 Appendix 2, and Chapter 5.5)	HW #6 assigned	Midterm 1 Review
Monday, October 8	Consumer Theory: Uncertainty (Chapter 15.1, 15.2 and 15.3)		Extensions
Wednesday, October 10	Firm Theory: Production (Chapter 6.1-6.5)	HW #6 due	Extensions
Friday, October 12	<b>UNIVERSITY DAY- no class</b>	HW #7 assigned	Extensions
Monday, October 15	Firm Theory: Production (Chapter 6.1-6.5)		<i>No Recitation</i>
Wednesday, October 17	Firm Theory: Production (Chapter 6.1-6.5)	HW #7 due	<i>No Recitation</i>
Friday, October 19	<b>FALL BREAK- no class</b>		<i>No Recitation</i>
Monday, October 22	Firm Theory: Cost (Chapter 7)		<i>No Recitation</i>
Wednesday, October 24	<b>Midterm #2</b>		<i>No Recitation</i>
Friday, October 26	Firm Theory: Cost (Chapter 7)	HW #8 assigned	<i>No Recitation</i>
Monday, October 29	Firm Theory: Cost minimization (Chapter 7, Chapter 8.1 and Chapter 8.2)		Midterm 2 Review

Wednesday, October 31	Firm Theory: Cost minimization (Chapter 7, Chapter 8.1 and Chapter 8.2)	HW #8 due	Midterm 2 Review
Friday, November 2	Firm Theory: Cost minimization (Chapter 7, Chapter 8.1 and Chapter 8.2)	HW #9 assigned	Midterm 2 Review
Monday, November 5	The Organization of Markets: Perfect Competition (Chapter 9.3)		Perfect Complements, Substitutes and Corner Solutions
Wednesday, November 7	The Organization of Markets: Perfect Competition (Chapter 9.3)	HW #9 due	Perfect Complements, Substitutes and Corner Solutions
Friday, November 9	The Organization of Markets: Perfect Competition (Chapter 9.3)	HW #10 assigned	Perfect Complements, Substitutes and Corner Solutions
Monday, November 12	The Organization of Markets: Monopoly (Chapter 11.1 and 11.2)		SR vs. LR Perfect Competition
Wednesday, November 14	The Organization of Markets: Monopoly (Chapter 11.1 and 11.2)	HW #10 due	SR vs. LR Perfect Competition
Friday, November 16	The Organization of Markets: Monopoly (Chapter 11.1 and 11.2)		SR vs. LR Perfect Competition
Monday, November 19	<b>Midterm #3</b>		No Recitation
Wednesday, November 21	<b>THANKSGIVING BREAK</b>		No Recitation
Friday, November 23	<b>THANKSGIVING BREAK</b>		No Recitation
Monday, November 26	The Organization of Markets: Game Theory (Chapter 14.1)		Midterm 3 Review
Wednesday, November 28	The Organization of Markets: Oligopoly (Chapter 13.1 and 13.2)		Midterm 3 Review
Friday, November 30	The Organization of Markets: Oligopoly (Chapter 13.1 and 13.2)	HW #11 assigned	Midterm 3 Review
Monday, December 3	The Organization of Markets: Oligopoly (Chapter 13.1 and 13.2)		No Recitation
Wednesday, December 5	OPEN- wrap up and review	HW #11 due	No Recitation



## *Frequently Asked Questions*

### **"I bubbled in the wrong answers on my Midterm/Final scantron. Can I get partial credit?"**

No. Unfortunately, to ensure fairness and remove subjectivity I have to be strict on scantron grading. The answers on your scantron are the answers on which your grade is based, regardless of what is written on the test itself.

### **"My scantron score was lower than I expected. Could you check to see if the scantron machine graded it incorrectly?"**

Yes. Email me directly, and I will manually grade your scantron. Make sure to include your name, section, and onyen. Please note scantron grading issues are *very* rare. (I have literally never seen one.)

### **"Is there extra credit?"**

No. The reason I do not offer extra credit is that if everyone knows about it, it's not really extra credit. It's just another assignment. If some people don't know about it (for instance, if a specific student asks for extra credit at the end of the semester), then I'm treating my students differently, which I make every attempt to avoid.

### **"I got an 89.8. Is there anything I can do to raise my grade?"**

No. I completely empathize with this question, as I understand how frustrating it is to be close to the cutoff for a particular grade. Unfortunately, however, the answer is no. The reason is twofold. First, I believe selective extra credit leads to an inequality in how I treat different students, which I make every attempt to avoid. Second, with a class of this size, if I move the grade scale down by even 0.1, I am sure to have moved the cutoff up against another student. This once again introduces an element of inequality, as I was willing to move the scale for one student, but not the new student for whom the cutoff now applies.

### **"I don't understand why I did poorly on the exam. I knew the information."**

Based on my experience, when students do not do well on the exam it's usually because of one of the following:

- They do not put in the effort that is needed. (Sometimes they *think* they are putting in big effort, but this effort really only occurred in the week before the midterm.) You can fix this one if you are honest with yourself.
- They do not have the active learning and study skills needed. Sometimes this unfortunately takes students an exam or two to recognize. We can work on this together! I am passionate about helping students gain these skills and will offer tips and assistance throughout the semester. As a starting point, please consider the study tips below.

## *MSA's Top Study Tips*

1. There can be a big difference between understanding something in your head and communicating it in words or applying it to solve problems. An effective way to assess your understanding of the material is to actually try expressing the concepts *out loud*. Put the concepts in your own words and pretend you are teaching them to someone else.
2. Draw the graphs yourself. You will not fully learn the graphs by just looking at them. You should practice drawing the graphs until you can draw them without looking at your notes or book. Moreover, be able to explain what you are drawing.
3. Economics is very difficult to cram. This means you need to keep up to survive and thrive. Schedule study time each week that is designated for this class.
4. Review your lecture notes soon after class so you can fill in holes while you still remember the lecture. This will also help you get the concepts into your head and has a much higher payback than most students realize.
5. Try skimming a chapter before lecture so you will be familiar with the general idea of what is coming. After class, go back and selectively read the chapter for deeper understanding. Take notes from your textbook within your class notes.
6. Economics is one of those subjects that you learn by doing not by just hearing. It can be easy to sit in lecture or read the textbook and go “yeah, yeah” and think you know it, but can be another thing to actually *apply* the material to problems. Don't wait until the exam to see what you can and cannot apply. The more you practice, the more you will learn and the better you will do in this class.
7. Learn from the practice and homework problems. For each problem, identify the concepts covered and the main point of the question. Then find similar practice and homework problems so you can reinforce these concepts and see different ways in which questions on the same topic can be written.
8. When possible, turn a multiple choice question into a free form problem. Read the question and then before you read the possible answers “brain blast” by writing down what you know about the topic. Get your thoughts organized and attempt to answer the question before looking at the multiple choice answers.
9. Make a serious effort to complete every homework problem independently. Do not give up on a problem after your first attempt! Work for your “aha!” moment. Often true understanding comes after struggling on problems.

10. After the due date for a homework assignment passes and the answers are available, identify which questions you got wrong and learn from your mistakes. Use the homework as a tool to help you identify your weaknesses and put more effort into learning that specific material. If you find that there are multiple problems you missed on homework assignments then try to find a pattern.
11. Rework homework, practice, and clicker questions. Don't just answer the questions correctly, but determine exactly why the correct answer is correct, why the incorrect answers are incorrect, and feel comfortable that you could teach this to another student. If you're not 100% sure of a question inside and out, you're not quite there yet.
12. For each question, identify the underlying concepts. Review these concepts and practice explaining them in your own words. Pick each problem apart, treating it as an opportunity for learning and applying the material.
13. Create new problems from existing problems. Compare and contrast similar problems. Anticipate new questions based on existing questions. Part of becoming a good test taker is learning to anticipate what's on the test. Prepare enough so that if an existing problem is modified or multiple problems are combined you are not thrown off.
14. Get adequate sleep the night before the exam. Your brain works best when well rested.

## *Study Tips from Some Former "A" Students*

### **Student A**

If I was advising a friend on how to succeed in your class, I would tell them:

- Recognize the time commitment 410 requires and be disciplined
- Don't use a computer/phone in class except for poll everywhere.
- Sit in the front if possible.
- Review the slides before lecture.
- Focus in during lecture.
- Do the help sheets and the blooms taxonomy questions, ESPECIALLY THE EARLY ONES. They provide the foundation for the rest of the course.
- Do the practice problems before the respective homework and learn from the worked-out solutions.
- Go to the TA sessions for help with homework and use classmates and TAs there as a resource.
- Go to your recitation section, especially the ones where you review your old tests. Use this time to see if what you missed on the test was a gap in learning or a simple mistake.
- Get help from peer tutoring in the econ aid center (this got me through the bloom's tax sections).
- Go to MSA office hours close to when a test comes up after most studying to clear up holes in learning.

### **Student B**

My suggestion is to redo all the homework and practice problems again before the exams. It's extremely useful!

### **Student C**

The first thing is to do the practice problems right after the day you learn the material in class. That means not waiting until the weekend or right before the midterm to do the practice problems. I feel like they should be completed on Tuesday's and Thursday's.

The second advice I could give is to understand what exactly you're doing. I feel like most people just regurgitate steps over and over and not really understand what the steps mean. It is one thing to be able to do the steps and another to understand why those steps in particular are necessary to solve the problem. In other words go beyond surface level. This could be achieved by writing down the reason for each step in a problem.

### **Student D**

My biggest tip would definitely be to stay on top of the material in class instead of waiting until the midterms to cram the information. I probably spent about 3-5 hours each week going over the new material and doing practice problems. I also thought it was really useful to get started on homework as early as possible, so I could bring my questions to the aid center. This way I would know the logic behind solving each HW question when I started studying about two weeks in advance for each midterm.

### **Student E**

I think the most fundamental thing that helped me get an A is to understand the logic behind the derivations of each kind of problem, which helps you to understand how to do each type of problem even if you forget steps. There was 100% enough resources for students to earn an A, it's just about putting in enough time studying to fundamentally understand the logic behind each problem.

### **Student F**

The best advice I can give for any student trying to get an A in your class is to study the homework, practice problems, and help sheets before tests. These contain all the material and concepts that is on the test and adequately prepared me for the exams.

### **Student G**

- Always try your best to complete the homework by yourself before you compare answers with a friend or study group! Struggling through the material and reteaching yourself critical concepts as you go along the course will help immensely by the time exams roll around!
- Take in-class polls seriously! They are great learning opportunities that test your understanding of important concepts. If you don't get the poll right the first time, then remember to go back and try it out again!
- Go to the EconAid Center!

### **Student H**

A studying tip that I would suggest to future students is really focus on the homework and practice problems and make sure you don't just memorize the specific problems but instead try to understand the bigger picture. That way you will understand the overall concept of the problem and you'll be ready to handle different questions that are still related to that concept. Another piece of advice would be to attend the ULA help sessions. The ULAs were extremely helpful when it came to working out and understanding homework problems. It was also very helpful to attend their pre-midterm sessions to get even more practice.

### **Student I**

1. Have an **intuitive understanding** of the math - it adds a level of clarity to the economics.
2. Use your resources as soon as you don't 100% understand something (I always went to a **help session every week**).
3. Find a small, smart **study group** to better absorb lecture material and reason out homework/Poll Q's.
4. Don't wait for the exam to revisit the homework assignments, break down the concepts, and see how things work when the question is posed differently (e.g. the inverse or converse of a conditional statement); Seek to **completely understand the homework as you do it** (starting early so you have enough time to digest and seek help is especially useful).
5. Have the concepts locked down and **do all the practice problems you can**, starting with the areas you feel you are the weakest at.

**Student J**

I would suggest that future students make use of ALL the resources you provide. I found that regularly keeping up with the material on a weekly manner helped me the most. This included first looking over the help sheets to learn strategies, then completing all the practice problems for that week, and finally attempting all the homework problems (at least 3 days before the due date). Leaving this extra time to complete the homework not only helped me earn a better grade on them, but also left time to master the material by discussing questions I had with TA's and my peers which helped me find other strategies that I might not have thought of to solve the problem. Before midterms and the final exam I found that redoing many of the problems I struggled with, as well as going over the basics helped too. When redoing them, it was important to look at the big picture of what the question was asking and knowing the steps to solve that particular problem. Finding a solid study group was also very helpful. It gave me the opportunity to learn from others but also to teach others something that they might not understand. Teaching someone else truly helps you master the material inside and out. Lastly, show up for class and pay attention! Don't be afraid to ask questions, and listen to other people's questions that you didn't even think to ask.