

Econ 1101: Principles of Microeconomics (Spring 2018)

Class Syllabus

Lecture	Meeting Time	Instructor	Email	Office Location
001	MWF 9:05-9:55 am	Aradhya Sood	soodx034@umn.edu	3-127 Hanson

Aplia

All students are required to register with Aplia. See Moodle for instructions for how to do this.

Economics and a Liberal Arts Education

A liberal arts education provides a student with general skills. These skills are not only valuable for a student's career but also enhance a student's ability to understand the world and make contributions to society. The latter includes the capacity of being a well-informed citizen who can understand the arguments of the great policy debates of our time.

Knowledge of economics is essential for those who will work in business or policy spheres, and helps in other careers like law and journalism. Beyond delivering career skills, the study of economics contributes to a strong foundation of a liberal arts education. Economics develops a set of tools that students can use to satisfy their curiosity about social phenomena that have big impacts in their lives, including changes in living standards, inequality, and globalization. Economics teaches a logical way of thinking and analysis that has broad applicability for understanding social phenomena beyond commerce, such as issues in political science and sociology. Finally, many of the great policy debates of our time are intrinsically economic debates. Through study of economics, students can better understand the important issues at stake.

The approach of economics is to build rigorous, fully-articulated models of the interaction of social agents (like firms or consumers), where the incentives underlying the behavior of the agents are explicitly specified. Typically, the agents in these models are assumed to behave rationally. That is, the agents weigh the cost and benefits of various alternatives and pick the best one in their interest. Economists use the models both to understand how the economy works and to analyze the impacts of changes in policy.

In this course, we develop the basic economic theory of firms and consumers and their interactions in markets. From these primitives, we derive supply and demand and solve for the competitive equilibrium allocation of the free market. We define notions of efficiency and prove one of the central results in economics, the First Welfare Theorem. This result is that under certain conditions the free-market allocation is efficient (where efficiency is defined in a precise way). Put another way, under certain conditions the

market maximizes the size of the social pie. Next we consider the effects of government policies and determine how these policies affect both the size of the pie and its distribution across individuals in the economy. Next we introduce the concepts of externalities and monopoly and show how these situations lead the first welfare theorem to break down. That is, the market allocation no longer maximizes the pie.

We develop all of these concepts in an example economy called Econland that trades in widgets. This is a simple economy that is rigorously defined. We keep coming back to Econland throughout the semester and map it into various policy applications. For example, in one application, one actor in Econland is China, another, the United States, and widgets correspond to carbon credits traded in a global emissions exchange. By being careful and rigorous about the way the incentives of all agents are explicitly specified, the course highlights the essence of the analytical approach of economics, and distinguishes its place among the broader social sciences.

Empirical work in economics starts from a foundation of explicit models, and aims to test theories and estimate parameters so the models can be used to quantitatively evaluate the impacts of policies. The course exposes students to the practice of empirical work in economics. The course includes assignments where students manipulate economic data in a manner that: (a) enables the students to derive interesting and useful results on important economic issues and (b) at the same time highlights the limitations of the primitive analysis, and explains the directions that can be taken with the help of more advanced techniques taught in upper-level classes and graduate programs. While there are exceptions, economics is mainly not a laboratory science. Rather, economic data is mainly created by a social process beyond the researchers control. This presents challenges that will be discussed in some of the homework exercises.

There is some research in experimental economics and the class will introduce students to this subfield of economics. In particular, the class will participate in several experimental auctions and the data generated by the experiment will be discussed in class.

Global Perspectives

The centerpiece of the class will be to address the following four global issues:

Global Issue 1: Global Externalities: Climate Change

How do we address externalities that operate at the global level? Specifically, what should be done about carbon emissions and climate change? Do we use market-based methods, like taxes or tradable allowances, as recommended by economists? Do we allow rich countries to buy pollution rights from poor countries? Should the United States tax gasoline like European countries do? Can game theory help us understand conflicts between China and the United States and other countries more generally about global agreements?

Global Issue 2: International Trade and its Impacts

Globalization has led to dramatic increases in trade between countries. How has globalization changed the overall size of the global pie, the division of the pie across nations? More specifically, what has been the impact of the bilateral trade relationship between China and the United States on both countries? How has it impacted workers in both countries?

Global Issue 3: Intellectual Property Protection in the Global Economy

What should the role of intellectual property protection be in the global economy? Should protection be weakened or strengthened? More narrowly, what should intellectual policy protection be in the pharmaceutical industry? Currently, intellectual property laws are strong in the United States. Drug companies set extremely high prices in the US market and this market accounts for a remarkable share of worldwide revenues of most pharmaceutical companies. Intellectual property laws are weak in India, for example, and India is a source of unlicensed knock-off drugs that compete with branded drugs. Should the United States pressure India to strengthen its protection? What are the equity considerations of charging high prices for drugs to poor countries? Should the United States weaken its own protection or regulate drug pricing? If the latter, how should research and development for new drugs be funded and, in particular, how should the bill for this research be divided across countries?

Global Issue 4: Globalization, Inequality, and International Migration

In recent decades there has been a sharp rise inequality in the United States and in many other countries throughout the world. Why is this happening, and what role does globalization play in the process? In addition to inequality within countries, there is substantial inequality in average incomes across countries, creating incentives for people from poor countries to migrate to rich countries. What are the economic impacts of migration policies?

The lectures will be used, first, to build the foundations (e.g., the development of Econland) under which it will be possible to undertake the analysis of the four global issues above. The lectures will be used, second, to directly cover the four issues. As a Global Perspectives class, lectures will focus on the world beyond the United States. When the United States makes an appearance in any lecture, homework, or exam, it will appear along with other countries of the world. All homework assignments will have global perspectives. In particular, the homework will contribute to the analysis of the four global issues above, both directly and indirectly.

In order to promote opportunities for students to formulate and express opinions, the class will feature platform debates on two of the global issues. For issue 1 and 4, there will be a week in the recitation sections in which students will debate the issues. Each section will be responsible for coming up with a platform that addresses the policy issue in some way. A platform consists of a specific policy proposal related to the issue as well as several brief arguments in support of the proposal. Students in the class will be free to propose platforms and the Teaching Assistant running the recitation will write the various proposals on the board. Students will make cases for the various platforms. The process will be over when more than half the students in the section vote in favor of a

platform. A student's contribution to the discussion will be evaluated by the students teaching assistant and this performance will count towards the homework for that week. (The debate contribution on that week's homework will be worth 10 points out of a 100 point scale, with 5 additional bonus points allowed for particularly useful contributions.)

International Contexts of the Economic Issues

We emphasize that as we go through each of the four centerpiece economic global issues, we will be putting these issues within the contexts of how specific countries relate to these issues. For example, in comparing fuel consumption between Europe and the United States, we will go into the details of the different tax policies pursued by the different countries and also provide some of the historical background for these differences. For issue 2 on international trade and its impacts, we will get into some details about the Chinese economy and its workforce and compare it with details about advanced economies like the U.S. and Europe. In the homework, students will be working with detailed data of what kinds of goods these regions are trading with each other.

Course Mechanics

While Econ 1101 is offered at various times and is taught by various instructors, all of the lectures are under the same common faculty management. The midterms and final exam are administered at the same across all the sections. There are two midterms and these will be given in the evening. The midterms and final exam are all multiple choice.

There are 11 homework assignments and these will all be completed through Aplia, a web-based economics teaching package. Students will be required to purchase a subscription to Aplia to enroll in the class because that is how all of the homework will be completed. For instructions on how to enroll in Aplia, see Moodle. At the bookstore, students can purchase a bundle that includes a hard copy of the textbook as well as an access code for a subscription to Aplia for \$112.65. **Note: Do not lose the access code that comes with the shrink-wrapped bundle. You will need this access code to enroll in Aplia.**

The textbook is:

Mankiw, N. Gregory, *Principles of Microeconomics*, 8th Edition, Cengage Learning.

In addition to the text, there are seven additional readings and links to these readings are available at the course web site.

Several of the homeworks will require students to manipulate economic data using Microsoft Excel. Many students have their own computers and their own copies of Excel. The remaining students can obtain access to Excel by using computer labs on campus.

Prerequisites

Students are expected to have basic skills in algebra and the ability to work with graphs. Homework Set 1 includes a practice problem (i.e. it is not graded) for a review of these skills.

Moodle Site

The basic information for the class, except for the homework at Aplia, will be posted that class Moodle site, which each registered student can access from <https://ay17.moodle.umn.edu/course/view.php?id=9362>. The slides used in the large-lecture sections will be posted at this site as well as other course materials.

The Moodle site will also be used to conduct interactive forums, where students can interact online with instructors and other students. The *Forum of Students Questions* is a place where questions can be posted about course material as well as administrative matters. *Economics in the News* is a place where instructors post news articles related to the topics in the class. Students are encouraged to post comments and additional articles.

Student Privacy

In this class, our use of technology through Moodle will sometimes make students' names and U of M Internet IDs visible within the course website, but only to other students in the same class. Since we are using a secure, password-protected course website, this will not increase the risk of identity theft or spamming for anyone in the class. If you have concerns about the visibility of your Internet ID, then we recommend that you modify your Profile setting to limit the visibility of this information.

When communicating through online forums, students are expected to maintain the same high standards of etiquette that would be expected in the classroom. In particular, students should be respectful of the other course participants, including fellow students as well as instructors and teaching assistants. Students should use appropriate language that is not offensive.

Details about Exams, Homeworks, and Grading.

The midterm date and time of the midterms and final are as follows:

Midterm 1	Monday evening, February 19, 6:30-7:30 pm
Midterm 2	Monday evening, April 2, 6:30-7:30 pm
Final Exam	Monday evening, May 7, 6:30-8:30 pm

NOTE the two midterms take place in the evenings. Room assignments for exams will in general be different from the regular classroom location and will be posted at the course web site.

For each midterm, there will be a makeup exam held at 4:00 pm on the Wednesday following the exam. Students will be eligible to take this exam if either (1) they cannot take the regularly scheduled midterm because of a documented illness or (2) they are

registered for a class that conflicts with the midterm time. If a student is unable to take the regularly scheduled midterm because of either of these two reasons and if the student is also unable to take the makeup exam, the student's final grade will be based on the other midterm, the final, and the homework. A student who is unable to take both midterms will have to drop the class. (Or take an incomplete in the class and start all over in a subsequent semester.)

The Final Exam must be taken at the scheduled time, unless a student has a documented illness or has a conflict on account of a final exam in a different class at the same time. For such students, there will be a makeup exam on a later date during the final exam period.

Registration with the Headgrader to Take the Makeup

Students with a conflict with any of the regularly scheduled exams (the two midterms or the final) must register for the make-up for that. **The registration deadline** to take the makeup in good standing is **4 pm on the Monday one week prior** to the regularly-scheduled exam. In order to qualify for any bonus points allocated on the exam, registration must be complete by this time, including any needed documentation. Students who miss this deadline, but complete registration by 4 pm on the Friday before the exam, will be permitted to take the makeup, but will **forfeit any bonus points** allocated on the exam. Students who fail to complete registration for the makeup by 4 pm of the Friday prior will not be permitted to take the makeup, unless the reason for missing the regular exam is a documented medical issue.

To register for the makeup, students need to send an email to **headgrader@gmail.com**. The student should include the student's ID and x500 username in the signature line of the email. (The x500 username is the university email address without "@umn.edu.")

Homework

All homework is completed at Aplia. (In some cases, students will use Excel to perform calculations needed to do the homework. However, the final results of these calculations will be submitted through Aplia.) There are eleven homeworks. Homeworks are due **Thursday evenings at 11:45 p.m.** central time. Late homework will not be accepted. Students traveling to a different time zone should take note that the deadline is central time.

Homework Policy Regarding Illness and Special Circumstances

In a large operation such as this, it is to be expected that there will be students who become ill or face some other special circumstances that prevent them from completing a problem set at the allotted time. To accommodate students in such situations, the homework grade will use only the **nine highest homework scores**. If a student is ill and cannot submit the homework on time, this homework will be dropped (assuming the

student submits a least nine other homeworks by the end of the semester). Students are encouraged to finish homework before the last minute of the deadline, in case something unexpected comes up that prevents them from completing homework at the last minute. In that way, the student can save a homework drop for later use.

We make one exception about the due date for homework 1 for students who ADD the class in the second week of the term. Such a student should contact the HEAD GRADER (headgrader@gmail.com) and the deadline for completing homework 1 will be extended for that student. (No other homework besides homework 1 will have their due dates extended, even to students who add the class late. A homework drop will be used for any other case.)

How the Weekly Homework Set is Scored

On Aplia, each homework is broken up into several parts and the points for each part is specified. For each weekly homework, we will take the Aplia points for that week and rescale it to a 100-point basis. Next, we will add 5 percentage points to each students weekly score, unless doing so raises the score above 100 percent, in which case the weekly score is capped at 100 percent. So a student getting 95 percent or more of the homework in a given week gets full credit (100 percent), a student scoring 90 percent gets 95, and so on.

Academic Dishonesty

The test-taking period begins when a student is handed the question sheet and ends after the students answer sheet has been collected. During the test-taking period, a student may not speak with any other student, nor use any communication device or notes. Any violation of this rule, regardless of the subject matter of the communication, is considered a form of academic dishonesty, and it will not be tolerated in this class. See the discussion below on Scholastic Dishonesty.

Course Grade

The overall numerical course score will be determined as follows.

Course Component	Weight (Percent)
Homework	20
Midterm 1	22
Midterm 2	22
Final	36
Total	100

An exception to the above weighting will be made if a student does relatively poorly on Midterm 1 (which will be the first college multiple choice exam for many of the students in the class). In this case, Midterm 1 will be weighted 10%, while Midterm 2 will be worth

27%, and the Final 43% (and Homework 20%). Each student's overall score will be calculated under both weighting schemes and the highest score under the two weighting schemes will be selected to be the student's overall course score.

The numerical course grade will be converted to a letter grade according to the following scale:

92-100	A
90-91	A-
88-89	B+
82-87	B
80-81	B-
78-79	C+
72-77	C
70-71	C-
68-69	D+
60-67	D
59 and below	F

Who to Contact for Help

You have questions or need help regarding course content?

- Talk to your instructor or teaching assistant during office hours or after class.
- Post a question on the weekly discussion forum.

Questions about grading of exams or problem sets?

- Contact your teaching assistant.
- If the issue involves a technical glitch (e.g. there is a mixup on Aplia), email the Head Grader at headgrader@gmail.com.

You have a conflict with the midterm or final (or are sick) and need to take the makeup?

- Email the Head Grader at headgrader@gmail.com.

Economics Department Policies

The class will abide by the Economics Department Policy and Procedures. These are listed below.

DEPARTMENT OF ECONOMICS -- PROCEDURES AND POLICIES 2017-2018
4-101 Hanson Hall (612-625-6353)

COURSE PREREQUISITES:

Students must have successfully completed all prerequisites prior to taking an Economics course.

DISABLED STUDENTS:

Reasonable accommodations will be provided for all students with documented disabilities (by the OSD). Contact the instructor at the beginning of the semester to work out details. This information will be kept confidential.

DROPPING A CLASS:

Termination of attendance alone is not sufficient to drop a class. You must notify the Registrar's office. Please contact your academic (college) adviser for details on this process and pay attention to University deadlines for add/drop.

INCOMPLETE GRADE:

Low class standing is not a valid reason for an Incomplete grade. An I is given only in exceptional circumstances like family emergencies or hospitalization; arrangements must be worked out between the student and instructor before the final exam. We require written proof of emergencies. Details about grades and how to make it up -in the Economics Undergraduate Handbook.

SCHOLASTIC DISHONESTY:

"The College of Liberal Arts defines scholastic dishonesty broadly as any act by a student that misrepresents the student's own academic work or that compromises the academic work of another. Examples include cheating on assignments or exams, plagiarizing (misrepresenting as one's own anything done by another), unauthorized collaboration on assignments or exams, or sabotaging another student's work".

The University Student Conduct Code defines scholastic dishonesty as Submission of false records of academic achievement; cheating on assignments or examinations; plagiarizing; altering, forging, or misusing a University academic record; taking, acquiring, or using text materials without faculty permission; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement.

Penalties for scholastic dishonesty of any kind in any course will entail an "F" for the particular assignment/exam or the course.

Please check this website for information on Student Academic Misconduct --
<http://www1.umn.edu/oscai/integrity/student/index.html>

STUDENT CONDUCT AND CLASSROOM BEHAVIOR:

Students are expected to contribute to a calm, productive, and learning environment.

Please check this website for information on student classroom behavior issues
http://www1.umn.edu/regents/policies/academic/Student_Conduct_Code.html. Check the Student Conduct Code to find out what is expected of you.

STUDY ABROAD IN ECONOMICS:

The Department encourages you to undertake Study Abroad. There are many courses in foreign countries that can satisfy some economics major, minor, or Liberal Education requirements. For more information, please contact our Undergraduate Advisor, Ms. Madhu Bhat, or the University's Learning Abroad Center at <http://www.umabroad.umn.edu/>

UNDERGRADUATE ADVISER:

Contact the Undergraduate Adviser if you wish to sign up for an Economics major or minor or to get information about institutions of higher study. Your APAS form will list your progress toward an Economics degree.

Adviser: Ms. Madhu Bhat (econugra@econ.umn.edu)
 Office: 4-100 Hanson Hall (office hours are posted on the door) Phone number: 612-625-5893

UNDERGRADUATE HANDBOOK:

Available on the Internet at: <http://www.econ.umn.edu/> Click on Undergraduate Programs.
 Registration policies are listed in the University Course Schedules and College Bulletins.

COMPLAINTS OR CONCERNS ABOUT COURSES:

All course grades are subject to department review.
 Please contact your instructor or TA if you have any complaints/concerns about the course. If your concerns are not resolved after talking with your instructor, you can contact: Professor Simran Sahi, Director of Undergraduate Studies
 (Phone): 612-625-6353 and E-mail: ssahi@umn.edu .

STUDENT LEARNING OUTCOMES

SLO Core Component

In this course, the student will be able to:

<p>1. Can identify, define, and solve problems</p>	<p><u>Understand</u> global economic problems involving externalities, like carbon emissions and intellectual property, and global issues like the impacts of international trade. <u>Assessment:</u> Students will be assessed on their understanding of this material on homework and midterms.</p> <p><u>Solve</u> problems in models of firm and consumer behavior, such as how to choose prices and outputs and how to behave in strategic environments. <u>Assessment:</u> Students will be assessed on their understanding of this material on homework and midterms.</p>
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<p>2. Can locate and critically evaluate information</p>	<p><u>Critically evaluate information</u> by manipulating data. Students will be given raw economic data in Excel worksheets, like data on gas prices, taxes, and consumption across countries and will use this information to evaluate implications of economic theories and draw conclusions about parameter estimates of economic models. <u>Assessment</u>: These tasks will be a regular part of homework assignments. Students will report the results of their data manipulation as part of their homework.</p>
<p>3. Have mastered a body of knowledge and mode of inquiry</p>	<p><u>Know</u> the basic terms, concepts, principles, and methods, microeconomics. <u>Learn</u> the basic facts about important global issues that serve as an application of the basic economics principles. <u>Assessment</u>: Students will be assessed on whether they have mastered this material through homeworks and exams.</p>
<p>5. Can communicate effectively</p>	<p><u>Discuss</u> and <u>Debate</u> important global policy issues, making points orally in classroom discussions as well as in written form in online forums. <u>Assessment</u>: There will be three platform debates on three global policy issues and students will be required to come to recitation sections prepared to propose and argue for a platform to address each issue. Students will also discuss the issues online. The teaching assistants leading the recitation sections will evaluate students on their contribution to the debate and their performance will enter into their homework grades.</p>
<p>7. Have acquired skills for effective citizenship and life-long learning</p>	<p><u>Learn</u> the key arguments in the policy debates about some of the great economic issues of our time, including what the role of government should be in the economy, and possible tradeoffs between efficiency and equity. In this way, students will <u>become</u> informed citizens. <u>Assessment</u>: Students will be assessed on whether they have mastered this material through homeworks and exams.</p>