

University of Massachusetts, Amherst
Department of Resource Economics

RES EC 102
INTRODUCTION TO RESOURCE ECONOMICS

Spring 2008
TuTh 1:00 to 2:15 pm
Morrill II – Room 131

Professor: Dr. Nathalie Lavoie
Office: 212-D Stockbridge Hall
Phone: 545-5713
E-mail: lavoie@resecon.umass.edu (please contact me using *SPARK* e-mail for course-related matters)

Office hours: Wed 2:30 to 4:00 pm,
Thurs 2:30 to 3:30 pm, or by appointment.
Please come prepared with a list of specific questions.

Teaching Assistant: Ms. Elizabeth McCarthy (eamccart@resecon.umass.edu)
Phone: 545-5736
Office Hours: TBA

☆☆☆ You should view Elizabeth as your primary contact regarding any Aplia,
SPARK, or PRS questions.

Course web page: On *SPARK*.

Course Description and Objective:

Knowledge of economics is essential to anyone who wants to have a better understanding of the world in which we live. Economics is, however, a broad discipline. It covers an extremely wide range of topics and borders on many other fields of study. In this course we focus on one branch of economics – microeconomics.

In microeconomics we study the formation of markets and prices. We examine how economic decisions are made by consumers and producers. We seek to understand how economic markets work. What do they do well? What do they do poorly? What can be done to correct market failures?

In the first part of this course we will study microeconomic theories and models, which describe and explain the behavior of consumers, producers, and markets. In the second part of the course we will examine some of the shortcomings and weaknesses of economic markets. This brings us to a discussion of economic policy in which we will use economic concepts to examine some of the problems facing today's society; for example, how much government regulation of business is "best" and how much should we spend on pollution control?

This course bears the Social and Behavioral Science designation of the General Education Program. It aims to help students to become proficient in the theories and methods of the social sciences, and to develop critical thinking skills as they apply theories and methods to concrete social situations, and to demonstrate these proficiencies and critical thinking skills in writing.

Required material:

- 1- A registration to Aplia. Aplia is an online product that contains both a digital version of the textbook and the homeworks that you will be required to do for this course.
- 2- A UMass OIT account to be able to access the course website, which will contain your grades, a link to Aplia, and course-relevant material and announcements.
- 3- *InterWrite PRS RF Clicker*. This is a radio frequency (RF) personal response system that you will use in class to respond to questions. **Available at checkout desks at the Textbook Annex** (ask the checkout clerk). The transmitter can be resold to the annex at the end of the semester but you'll probably want to keep it for use in other classes. **PRS starts counting towards your grade on Tuesday, February 5.**

☆☆☆ You cannot share any of these above items.

Optional material:

- 1- A physical textbook: An online version of the textbook is already bundled with access to Aplia. You can buy a physical version of the book at the Textbook Annex. Book: Mankiw, N. Gregory, 2007. *Principles of Microeconomics, 4th Edition*.
- 2- Basic calculator: Once in a while you will need a calculator in class. Only non-text storing calculators will be allowed during exams (cell phones are not allowed).

Other Resource: The Learning Resource Center located on the 10th floor of the W.E.B. Du Bois Library offers tutoring services for various courses. Find out more at <http://www.umass.edu/lrc/>

Grades:

Grades will be calculated according to the following percentages:

| | <i>Percentage</i> | <i>When</i> |
|------------------|-----------------------------|--|
| Online Homeworks | 20% | Roughly weekly. |
| PRS | 10% | Every lecture. |
| Activities | 5% | 1. Microeconomics Rock! due in class on Thursday, May 1, 2008. (2 percent) 2. Other activities (3 percent) |
| Midterm 1 | Best two are worth 20% each | Thursday, February 21, 2008, 6:00 – 8:00 pm. Location tba. |
| Midterm 2 | | Thursday, March 13, 2008, 6:00 – 8:00 pm. Location tba. |
| Midterm 3 | | Thursday, April 17, 2008, 6:00 – 8:00 pm. Location tba.. |
| Final Exam | 25% | Time and location to be announced. |

Note: No extra credit will be given under any circumstance.

The *minimum* percentages needed for course grades are as follows:

| | F | D | D+ | C- | C | C+ | B- | B | B+ | A- | A |
|--------------|---|----|-----|-----|----|-----|-----|----|-----|-----|----|
| Course grade | - | 60 | 63 | 67 | 70 | 73 | 77 | 80 | 83 | 87 | 90 |
| Grade points | - | 1 | 1.3 | 1.7 | 2 | 2.3 | 2.7 | 3 | 3.3 | 3.7 | 4 |

The “Free Pass” System

- ☆ For most grading segments of this course you have a certain number of free passes. A free pass entitles you to drop a low score or miss an assignment for any personal reason.
- ☆ I use the free pass system to allow for circumstances that do not classify as “extenuating circumstance.” Please use your free passes wisely as I do not offer make-up assignment/exams for any other reasons.

Online Homeworks:

- ☆ Weekly (roughly) homeworks will be given over the Internet using Aplia. You can expect between 8 to 10 homeworks during the semester.
- ☆ You can take the homeworks only with a registration to Aplia, see pages 8-9 for how to register.
- ☆ You will have 7 days to complete each homework.
- ☆ You may take each graded problem set as many times as you want. Your last answers on the due date and due time will be graded.
- ☆ Avoid procrastinating: failure to complete homework because of computer problems or any other personal reason is not a valid excuse.
- ☆ Problems with Aplia should be reported right away to Aplia directly using the “support” button at the top right of the screen. Aplia’s support staff is excellent and responds quickly to help requests.
- ☆ An announcement will be made in class and with a *SPARK* e-mail when a new homework is out. *It is your responsibility to find out when homeworks are due.*
- ☆ One free pass.

Personal Response System (PRS)

- ☆ PRS is an in-class communication system. It uses radio frequency transmitters (what I call “PRS clickers”) to allow students to send answers in response to questions that I will pose during class. It will allow me to find out how the class grasps the material as a group and generate classroom discussions. It will allow you to check your understanding of the concepts during class.
- ☆ We will use this system every class period.
- ☆ Regardless of the number of PRS questions, every class period will give you 2 points towards your PRS total number of points. Thus, if there are 2 PRS questions in a given class period, each is worth 1 point. If there are 4 PRS questions, each is worth 0.5 points, etc.
- ☆ Unless otherwise specified, for each question, you will earn 50 percent of the points for the right answer, and 50 percent to participate (i.e., to answer something). In other words, you earn 5 percent of your grade just for participating.
- ☆ To get PRS credits, you must be present in class and send your response to each question before the time expires (about 30 seconds). Given the nature of these assignments and the weight of each question on your final grade, under no circumstance you will be able to make-up PRS questions, including for technical problems with your clicker (please monitor the life of your batteries).
- ☆ To obtain credit for PRS, you must enter your SPIRE ID number in your clicker. See page 7 for how to enter your ID number in your clicker.
- ☆ If at any point during the semester, it is found that you are sending answers for another person (i.e., holding your friend’s clicker), **both you and your friend will receive zero PRS credit for the course.** That is 10 percent of your grade. Don’t do it, it’s not worth it.
- ☆ **On February 5, PRS questions starts counting towards your grade.** Bring your clickers!
- ☆ Three free passes (a pass counts for a class period).

Activities:

1. **Microeconomics Rock!**

This activity is worth 2 percent of your grade. See description page at the end of the syllabus.

2. During some lectures, there may be an economic experiment, discussion, or other form of activity. Some activities will require the use of the PRS clickers. In many instances, you will get full credit just for participating. For in-class activities, you must be present to receive the credits. Given the nature of those assignments and their weight on your final grade, under no circumstance you will be able to take a “make-up” activity. One free pass.

In general, I will try to announce those activities in *SPARK*. However, I cannot guarantee such forward planning.

Exams

- ☆ Midterm exams will be held Thursday evenings from 6 to 8 pm. The day of an exam, the lecture will be cancelled, but I will hold an optional question session during class time.
- ☆ I will also hold a question session the day before the exam from 4:45 to 6:15 pm.
- ☆ All exams will consist of multiple-choice and short answer questions and problems.
- ☆ Midterm exams will cover the material covered since the previous exam. The final exam is a *comprehensive* exam.
- ☆ One free pass can be used for one of the three midterm exams.
- ☆ There will be no make-up tests given, except under extenuating circumstances as defined in section VIII of the Undergraduate Rights and Responsibilities Handbook available at http://www.umass.edu/dean_students/rights/. Be prepared to document the reason of your absence and advise me ahead of time if possible **by phone** (413-545-5713, please leave a message with your phone number if I'm not there) **and e-mail**.

Academic Conflict with Exams

I will provide a make-up exam only to eligible students according to the university rules. These rules apply to students for whom midterm exams conflict with another course or another evening exam. Please have the Registrar's Office verify the conflict and bring me this verification at least one week before the exam.

Exam Protocol

- ☆ Please wait outside the room until the TA or professor opens the doors.
- ☆ Sit yourselves where there is an exam, usually two desks away from the next neighbor.
- ☆ Bring pencils, eraser, straight edge, and your **student ID** to all exams.
- ☆ *Don't bring backpacks or anything that may clutter the rows on exam days.* It makes it difficult for people who want to leave early to do so. Leave your backpacks at home or in the front of the classroom.
- ☆ No talking is allowed during tests or exams except to ask the professor or TA a question.
- ☆ Anyone not in compliance with the exam protocol will be asked to leave.

Students with Special Needs:

Students who need accommodation for a learning, physical, or psychological disability should inform me as soon as possible and provide documentation from Disability Services located at 231 Whitmore.

Academic Honesty:

Academic dishonesty will not be tolerated. Any student charged with any form of academic dishonesty in any class assignment/exam will receive a grade of F for the course. The official University Policy will be followed to the fullest extent in such cases where academic dishonesty is suspected. Please read what constitutes academic dishonesty in your Undergraduate Rights and Responsibility Handbook available at http://www.umass.edu/dean_students/rights/

Civility inside the Classroom (source: NRE guidelines)

Students are expected to assist in maintaining a classroom environment that is conducive to learning. In order to assure that all students have the opportunity to gain from time spent in class, I propose certain basic standards of classroom respect be adhered to. Respect does not eliminate appropriate humor, enjoyment, or other indications of a comfortable and pleasant classroom community. However, there is an expectation that all participants in this course will:

- Display respect for all members of the classroom community: your instructor and fellow students.
- Attend and participate in lectures, group discussions, and other classroom activities.
- Avoid unnecessary disruptions during class such as private conversations, reading newspapers, speaking on cell phones, using a laptop for something other than current classroom work, arriving late or leaving early, eating, drinking, and sleeping during class.
- *Please wait for the class to be formally dismissed before you start to pack up your things or get up to leave.*
- Avoid negative language that is considered racist, sexist, or homophobic or in other ways may exclude members of our campus and classroom community.

Civility outside the Classroom (source: NRE guidelines)

Please be respectful and use appropriate language when communicating with me over e-mail. E-mail is appropriate when used to schedule an appointment, notify me of an absence or tardiness, or for short questions to clarify class assignments or specific items from a lecture.

E-mail is not appropriate to deliver the following:

- Messages with inappropriate language.
- Junk mail, internet jokes, chain letters, etc.
- Requests for my lecture notes or asking if you “missed anything” when you miss a class. It is your responsibility to attend class and obtain notes. If you miss a class, obtain notes and other important information from a fellow student.
- Anything you would not be willing to communicate to me in person.

Email is frequently not a good substitute for meeting with me. This is why I have office hours. Office visits are the best way to ask questions about course material, and to discuss classroom issues or any other special concerns you may have about your class performance.

Important Dates – RESEC 102

| | |
|-------------------|--|
| February 5, 2008 | PRS questions start counting towards your grade. |
| February 11, 2008 | Last day to Add or Drop with no record. |
| February 19, 2008 | Monday class schedule. |
| February 20, 2008 | Question session, 4:45 to 6:15 pm, location tba. |
| February 21, 2008 | Midterm Exam 1, 6:00 to 8:00 pm, location tba. |
| March 12, 2008 | Question session, 4:45 to 6:15 pm, location tba. |
| March 13, 2008 | Midterm Exam 2, 6:00 to 8:00 pm, location tba. |
| March 18, 2008 | Spring Break. |
| March 20, 2008 | Spring Break. |
| March 25, 2008 | Last day to drop with “W.” |
| April 16, 2008 | Question session, 4:45 to 6:15 pm, location tba. |
| April 17, 2008 | Midterm Exam 3, 6:00 to 8:00 pm, location tba. |
| May 1, 2008 | Microeconomics Rock! Due in class. |

Tentative Course Outline

I. Introduction

- A) What is Economics?
- B) What Do Economists Do?
 1. Microeconomics vs. Macroeconomics
 2. The Seven Principles of Microeconomics
 3. Positive vs. Normative Economics
- C) Economics Models

- D) A Simple Model: Production Possibilities Frontier (PPF)
- E) Markets are Magic!

II. Supply, Demand, and Economic Markets: An overview

- A) Demand
- B) Demand Determinants and Shifts in Demand
- C) Supply
- D) Supply Determinants and Shifts in Supply
- E) Market Equilibrium
- F) Changes in Market Equilibrium

III. Consumer Behavior: The Demand for Goods and Services

- A) Elasticities
 - 1. Introduction
 - 2. Price Elasticity of Demand
 - 3. Price Elasticity and Total Revenue
 - 4. Other Demand Elasticities
 - a) Cross-Price Elasticity of Demand
 - b) Income elasticity
 - 5. Supply Elasticity
- B) Marginal Utility and Consumer Choice
 - 1. Total vs. Marginal Utility
 - 2. The Law of Demand and Marginal Utility
 - 3. Consumer Surplus

IV. Producer Behavior and Costs of Production

- A) Overview
- B) Cost of Production
 - 1. Total Fixed Cost
 - 2. Total Variable Cost
 - 3. Total Cost
 - 4. Average Costs
 - 5. Marginal Cost
 - 6. Economies and Diseconomies of Scale
- C) Profit Maximization for a Competitive Firm
 - 1. Total, Average, and Marginal Revenue
 - 2. $MR = MC$ Rule
 - 3. $MR = MC$ Graphically
 - 4. Loss Minimization
 - 5. Short Run Firm Supply Curve
 - 6. Long-run perfectly competitive equilibrium

V. Market for Products

- A) Introduction and Review
 - 1. What is a market?
 - 2. Market structures
- B) Monopoly
 - 1. Why monopoly arises
 - 2. Perfect competition vs. monopoly
 - 3. Relationship between P and MR
 - 4. Price and quantity determination
 - 5. Welfare: perfect competition vs. monopoly
 - 6. Public Policy Towards Monopoly
- C) Oligopoly
 - 1. Mutual interdependence and strategic behavior: an example

2. Tension between cooperation and self-interest
3. Game Theory

VI. Externalities and Market Failure

- A) Externalities
- B) Why do we care?
- C) How to correct for market failure?
 1. Creating property rights
 2. Pollution tax
 3. Enforce standards
- D) Positive externalities and public goods
 1. Positive externality and market failure
 2. Positive externality and public goods

VII. Conclusions

IN RESEC 102, HOW DO I ...?

I. How Do I Access SPARK?

1. Go to the OIT website at: <http://www.oit.umass.edu/webct/index.html>
2. Click on “Log in to SPARK”
3. Click on “Go to SPARK Log in page”.
4. Enter your OIT User Name and Password.
 - a. Note that to enter SPARK you must **have an active OIT account** and know your user name and password.
 - b. If you **do not have an active OIT account**, to access the course materials on SPARK you will need to activate your account and tell OIT you want access to SPARK. (For information on how to activate your account see <http://www.oit.umass.edu/accounts/>.)
 - c. The first time you use SPARK do a browser check. See instruction on the page prompting you for your user name and password.
5. When you log in, the *MyBlackboard* tab will open. On the *MyBlackboard* tab, you can view all your SPARK courses. Click on: “RES-ECON102-Intro Resource Econ”.
6. Click on the icons to access different parts of the on-line materials for the course.

II. How Do I Access Aplia?

1. Enter the course web page on SPARK (see steps above).
2. Click on the Aplia icon.

Alternatively, you could go directly to the Aplia website: <http://www.aplia.com>. However, it would be a good habit to always go through SPARK to access Aplia because this will allow you to see if you received any e-mail with course announcements.

III. How Do I Register for Aplia?

See the Aplia “Student Registration and Payment Instructions” information sheet on the next page.

IV. How Do I Enter my SPIRE Student ID in my PRS clicker?

1. Turn on your clicker
 - Battery symbol displayed
2. Stop scan by hitting “*” on the keypad
3. Hit “*” again which takes you to the Setup Menu.
4. Scroll up to ID

5. Hit "Send/Enter" key (green button)
6. Type your ID number, i.e., your 8 digit SPIRE ID number
7. Hit "Send/Enter"
8. Hit "*" to exit Setup Menu
9. Your ID is now stored in the unit (you do not have to enter it again in the future).

V. *How Do I join a class once my ID is entered and on all subsequent class days?*

1. Before class starts, turn on your clicker and either:
 - a. Wait for the unit to scan for classes, when **RESEC 102S** appears select it by hitting the green "Send/Enter" button,
 - b. Or jump to the channel that the class is on by looking at the projected screen and seeing the letter or number < ? > associated with this class, pressing it, then pressing the green "Send/Enter" button.
2. You can join the class at any point after the class is started but please join just before class starts.



Student Registration and Payment
Instructions

Course Name: Microeconomics, Mankiw, Spring 2008

Start Date: 01/28/2008

Professor: Nathalie Lavoie

Course Key: SGGR-UDCY-P49M

You can begin working on your homework as soon as you register!

- In this course, you will use a textbook and Aplia's website.
- You will save money if you buy these together.
- You have two purchase options.
- You will have free access to the first four chapters of an online copy of your textbook at Aplia. You can access the remaining online chapters as soon as you submit a payment for your Aplia course.
- Don't buy anything until you understand your alternatives.

Registration

Registration Instructions:

1. Connect to <http://www.aplia.com>.
2. Click the System Configuration Test link below the Sign In and Register sections to make sure you can access all of the features on Aplia's website. This takes just a few seconds and tells you how to update your browser settings if necessary.
3. Return to <http://www.aplia.com>.
 - If you have never used Aplia before, click the New Student button and enter your Course Key: SGGR-UDCY-P49M. Continue following the instructions to complete your registration.

- If you have used Aplia before, sign in with your usual e-mail address and password and enter your Course Key when prompted: SGGR-UDCY-P49M. If you are not prompted for a new Course Key, click the Enter Course Key button to enroll in a new Aplia course. Enter your Course Key when you are prompted.
4. If you understand your payment options, pay now. Otherwise, postpone your purchase decision by choosing the option to pay later. Your payment grace period ends at the end of the day on 02/17/2008.

Payment

Option A: Pay Aplia Directly

- Purchase access to your course directly from Aplia on our website for \$70.00 USD. The website includes:
 - Access to an online copy of your textbook.
 - Content that has been customized for your textbook and course.
- However, if you try using the online textbook and decide you would also like a physical textbook, you can order one from Aplia for \$50.00 USD plus \$7.50 for shipping and handling.

Option B: Purchase at Bookstore

- Purchase a bundle from your school's bookstore, which includes:
 - An Aplia Access Card containing a Payment Code that you can enter on Aplia's website as payment for your Aplia course.
 - A physical textbook.
 - Purchase a stand-alone Aplia Access Card from your school's bookstore.
 - Access Cards contain a Payment Code you can enter on Aplia's website as payment for your Aplia course.
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Activity 1

Microeconomics Rock!

Due: Thursday, May 1, 2008, in class.
10 % off per hour late.

The goal of this activity is to stimulate your thinking about microeconomics concepts and principles. Your assignment through the semester is to keep your ears open to songs that explore some of the ideas and concepts of microeconomic theory covered in this course. You must find **one song** illustrating one or more concepts of microeconomics. There are no restrictions on the music styles; pop, rock, country, jazz, rap, whatever makes you tap your feet!

The **typed** document must contain the following elements and must be formatted according to the following guidelines.

- **Page 1: Title page.** Your name and SPIRE ID. The title of the song, the name of the band/singer, the name of the album.
- **Page 2: Song Lyrics.** Most song lyrics are on the Internet.
- **Page 3-4-etc.: Relevant Microeconomic Concepts.** Provide an exhaustive list of the microeconomic concepts, ideas, theories that are either directly or indirectly referred to in the song. Each concept should be accompanied by the **relevant lyrics** and a **short explanation for why** they relate to the microeconomics concept listed. To get full credit you must demonstrate that you have understood the concepts in your explanation and that the song does illustrate the concepts you list. The following format is desired:

| |
|--|
| <p>Relevant Microeconomics Concepts</p> <p><u>Name of Microeconomic Concept 1</u> <i>"Relevant lyrics illustrating the microeconomic concept 1"</i></p> <p>Explanation for why the relevant lyrics relate to microeconomic concept 1</p> <p><u>Name of Microeconomic Concept 2</u> <i>"Relevant lyrics illustrating the microeconomic concept 2"</i></p> <p>Explanation for why the relevant lyrics relate to microeconomic concept 2</p> <p>Etc.</p> |
|--|

- **Attachment (optional): A copy of the song on CD.** Make sure your name is on the CD, but *note that I may not return them.* I will present some of the best choices during the last lecture.

You will get **zero** credit if:

1. I find the lyrics offensive (I'm a reasonable person, but don't push your luck)
2. Your activity is not typed.
3. You use the song that I will have used as an example (I will post the song on *SPARK*).