

EC 121 B

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- Purpose: We will learn how free market works and it fails given the knowledge of Ec121A. After taking this class, I would like you to be able to apply the knowledge of Economics to real problems around you.

Economics often provides a clear answer to the questions which are difficult to answer without the knowledge of Economics. Consider the following two questions:

Question 1: What do you think about the following statements? Are they correct or not?

1. Restaurants in Manhattan, NY are expensive because the costs of renting spaces for restaurants are expensive.
2. Restricting imports from other countries is important to shield the producers, businesses, and workers of the import-competing sector in the country from foreign competitors.
3. The above opinion in 2 is incorrect. Restricting imports is beneficial for domestic industries but it is costly for consumers. Whether the benefit or the cost is larger depends on the situation.
4. It is important for a government to select promising industries and to protect and subsidize such industries. Such selection and protection policy will lead to the improvement of the total welfare of the country.
5. In some countries, the governments use an auction system to sell the rights to transmit signals over specific bands of the electromagnetic spectrum. In other countries, bands of the electromagnetic spectrum are given freely to phone companies by the governments. They argue that a spectrum auction may not be a good idea because it may lead to an increase of the price of telephone services and higher payment of consumers.

Question 2: I also found two contradicting opinion in two news papers about which smaller or larger gasoline stations can increase price.

- News paper A says
 - * smaller gasoline stations cannot increase gasoline price much because of the competition with the other gasoline stations.
 - * on the other hand, larger gasoline stations can increase gasoline price because they are “strong”.
- News paper B says the opposite:
 - * smaller local gasoline stations cannot help increasing gasoline price because their profits are small from the beginning,
 - * larger gasoline stations may be able not to increase price much.

Which opinion do you think is correct?

Without the knowledge of Economics, it would be difficult to answer correctly. In fact, we often see wrong statements like above in news papers, TV shows, and statements of policy makers.

In my class, I will not only teach basic knowledge of Economics but also how to use Economics to provide clear answer to important questions including the above questions.

- Grading:¹
 - Homework (100%): 4-6 times. In principle, I do not receive homeworks submitted after deadlines. If you submit your home work after a deadline, you will lose 30% of the grading of your points of the home work.
 - Attendance (20%)
- Text Books: I will prepare lecture notes. You do not have to buy the books but the following books would be useful.
 - Andreu Mas-Colell, Michael D. Whinston, Jerry R. Green “Microeconomic Theory” Standard textbook on Microeconomics in graduate schools.
 - Michirhiro Kandori “Microeconomics” Nippon Hyoron Sha. Textbook written in Japanese containing many realistic examples.
- Class Schedule
 - Partial Equilibrium Theory
 - General Equilibrium Theory

¹I give A+ only to very exceptional students. If you want to get A+, you should attend all live lectures and need to do exceptionally well in the home works.

- * First Welfare Theorem: Is free market good? (What do we mean by "good" first of all?)
- * Second Welfare Theorem: How to achieve desirable allocation through free market? How to correct inequality?
- * Existence of Equilibrium: When can we analyze the problem using General Equilibrium Theory?
- Failure of Market: When does it fail? How to correct it ?
 - * Externalities
 - * Public goods
- Monopoly: What does imperfect competition cause? How does an electronic power company decide price?
- Homework Submission Policy: Your homeworks must be written by LATEX. I will not accept hand-written homeworks. You can Matlab, Mathematica and any software for calculation and for creating figures.
- Collaboration Policy:
 - You are encouraged to work on the problems with others and to seek additional help if you find that useful, but the write-up must be your own. Also, you may not consult any prepared solutions for the problems, whether they are this years or from previous years. You may consult outside reference materials, other students, or the instructor, but you must cite any use of material from outside references. All solutions that are handed in should be written up individually and should reflect your own understanding of the subject matter at the time of writing. As a guideline for the collaboration policy, you should be able to reproduce any solution you hand in without help from anyone else.
- Students with Documented Disabilities
 - Students who may need an academic accommodation based on the impact of a disability must initiate the request with Caltech Accessibility Services for Students (CASS). Professional staff will evaluate the request with required documentation, recommend reasonable accommodations, and prepare an Accommodation Letter for faculty dated in the current quarter in which the request is being made. Students should contact CASS as soon as possible, since timely notice is needed to coordinate accommodations. <http://cass.caltech.edu/>.
Undergraduate students should contact Dr. Lesley Nye, Associate Dean of Undergraduate Students (administrative contact: Beth Larranaga) and

graduate students should contact Dr. Kate McNulty, Associate Dean of Graduate Studies (administrative contact: Jacob Dalton).