

PART 5: ASSIGNMENTS

STANDARD INSTRUCTIONS FOR ALL OF THE ASSIGNMENTS.

Do the assignment **under examination conditions** – these assignments are the basis for the exam questions. Return to it the next day using your notes, textbooks, the **Manual**, etc. Then work on the assignment with your study group. **Expect** to have problems with some of the questions. Sometimes your difficulty will simply be that I didn't phrase the question carefully enough. *Contacting me and asking for clarification of the question can easily solve difficulties of this type. **If you don't contact me you may end up wasting a lot of time and becoming very frustrated.*** Sometimes the problem will be that the question is challenging for someone with your limited background in economics. This is what a university education is supposed to be -- challenging! You will learn a lot by trying to solve these problems, but **at some point you will run into diminishing returns – at which point you should contact me for help and advice.**

Note that the assignments are not graded. This allows me to give you as much help with them as I can. The point of the assignments is to help you to learn the material, which requires you to give each question your best effort before seeking help, but ***help will often be needed if you are not to waste a lot of time, either being completely stuck or pursuing some irrelevant trail.*** Like everything else in the course (your major, and life in general) you must combine application to the problem you face with common sense. ***Do not feel shy about asking for help after you have given a question your best shot,*** I will do everything in my power to help you with your problems ***but I***

cannot do so if you do not communicate with me. Come to see me even if you are not really sure what your problem is, I will try to rephrase the problem so that you do know what you have to do.

Do the assignment in some permanent form, such as ink, ***not*** in pencil because this is how I will expect you to answer questions on the exams. While you should do the assignments as study group projects, beware of the danger of *free riding* – the **exams** are all done **individually**!

Before you do the assignments **re-read the *Advice to New Majors*** and pay attention to what it says about **presentation** of your work, **also re-read the section on *How to do Well in Econ 208* and follow the advice given there.** Answer each question as **briefly** as possible, but be sure to **explain** your points **clearly**. Make it absolutely clear that you are answering the questions **using the concepts that you have been taught in this course**. Be sure to *draw diagrams* and *use symbols* where it is appropriate. When you draw diagrams *use them* in your explanations. *Define* your symbols the first time you use them.

As you move on to later assignments be careful to answer the questions **algebraically** or using **calculus**, not by the sort of verbal or diagrammatic explanation that would be appropriate if you were answering a 206 or 207 question. But provide verbal and diagrammatical explanations of your mathematical arguments. After all, this is an economics course.

I will provide you with keys to the assignments. **Study the keys very carefully** so that you are certain how I want *you* to answer this question and similar questions I may set on the **exams**.

The exams will be based very closely on the assignment questions. This means that **you will only do well on the exams if you can do the assignment questions, on your own, under exam conditions.** This also means that you must **practice writing out** answers to the questions so that you develop the sort of facility with the material that will enable you to get through the exams in the allotted time. You must **continually review the assignment questions and their answers and practice doing them** until you can answer the questions with only the minimum amount of thought. Learning economics is like learning any other skill -- it requires *hard work* and *repetition*.

Organize your **exam reviews** by **question, or at least by assignment**, *not* by lectures. Set up **files** for *each assignment question, or set of related questions*. Include in that file *all relevant material - irrespective of where it comes from*: the assignment question(s) and answer key(s), lecture notes from Econ 208 or from other courses, notes from the principles texts or other books you have used, ideas gleaned from your study group discussions, and anything else that may help. Continually work on the files attempting to *boil the information down to a few pages* and -- *ultimately* -- just *one page* or *a few lines on a page* that will **trigger** your brain when it sees the exam question.

A 1. GETTING INTO THE ECONOMICS MAJOR – UNIVERSITY “MIND SET” ASSIGNMENT

The purpose of this assignment is to **make you** read all of the introductory material in the Manual and to become thoroughly acquainted with its contents; something that you need to achieve if you are to plan your time devoted to ECON 208 wisely. The Manual contains almost everything that you need to know about the course, including what you need to do in order to ace those mid-terms and thus avoid taking the final. The Manual also contains much advice for those of you who may still be in “high school” mode and need to radically change your study habits if you are to do well in, and get the most out of, your major.

My apologies to those of you who are already competent in the ways of universities and are already acquiring a “university education”. It is not my intent to patronize you but simply to give help and guidance to those members of the class who have not yet achieved your level of sophistication – who have not “got it” yet. It is my experience that many, but not all, students leave high school, community colleges, and even the first two years at Western with only very rudimentary study skills and often with very little idea of what is meant by a university education. Because no one else seems to care about this I have spent a great amount of time and effort in this Manual trying to fill in the necessary information. Please do not assume that I believe that you are all in need of this help, but it is here for those of you who need it, and if you don’t then you may ignore it. My hope is that I can help

you not only to succeed in ECON 208 but also to materially improve the quality of your experience in the major and during your time at Western

My apologies to everyone for my tendency to write things three or four times – in my experience this repetition is necessary for some, but not most, ECON 208 students. Again take what you need and ignore what you don't need.

It is important that you **look through** the Manual before you start to **master it** in earnest. You need to know where you are going if you are to plan your journey successfully. Indeed you should begin *all* of your classes by “looking at” **all** of the assigned reading, not just what you need to cover for the next class. In ECON 208 I often have students ask how much calculus are we going to do. This shows that they have not bothered to look at the second half of the Manual, where all of the calculus is laid out for you. You also need to at least glance through **all** of the assignments – especially those at the end (numbers 10-17) to see what sort of material we will be covering in the last third of the course – and what you may be examined on.

1. What do you think I think is the most important objective of this course?
2. How many exams do you have to take? What is the source of the exam questions? What is important about the third mid-term? What should you **not** do when preparing for the exams?

3. What is the major difference between the material in the first part of the Manual (the material on supply and demand and the macro models) and the rest of the Manual?
4. How much calculus are we going to cover? Which assignments use calculus?
5. What is a model? Why does it not make sense to complain that a model is abstract?
6. Why are study groups a good idea? How many people should you have in your study group? How often should you meet? What should you do at your meetings? What should you do if your study group does not “work”?
7. What should you do if, after giving it your “best try”, you still do not know how to do an assignment question?
8. How should you organize your materials related to ECON 208? What does this imply about how you should take notes? Is it a good idea to bring your Manual to class?
9. What would you say, after *glancing* through ET 7-10, is the major difference between the macro models that we study in ECON 208 and the macroeconomic theory that you learned in ECON 207?
10. What is the major difference between the mathematics that we will be doing in ECON 208 and the mathematics that you have done in previous economics courses (and even previous mathematics courses)? Why might economists want to “prove” theorems from economic theory? What part does generality play in any theoretical discipline?

11. Why might you find it useful to write a weekly Journal for ECON 208? What should you write about in your Journal?
12. If you have a “satisfactory” grade (satisfactory being defined by you) do you have to take the final exam? (Do you have to turn up for the final if you are happy with your mid-term grade?) Can you count your Journal points towards your mid-term grade? If you do not take the final what must you do in order to get a non-failing grade? If you “mess up” on the mid-terms can you still end up with an A in 208?
13. Why should you have access to micro and macro principles texts in ECON 208 and your upper division course?

I could ask you many more questions but by now I hope that you have familiarized yourselves with the contents of the whole Manual – and are therefore in a position to start mastering it. I hope that you have also realized that almost anything that you may want to know about ECON 208 is answered in the Manual (often several times!)

A 2. PPC ASSIGNMENT

This assignment is here to remind you of the ECON 206 that you once knew and may have forgotten. It also gives me an opportunity to show you what the assignment keys are like. But **I will not examine you on this material**, so do not spend a lot of time on this assignment – and I will not collect this, or subsequent, assignments because I will not be marking them for reasons I have already explained but I will provide you with detailed keys for this and subsequent assignments.

1. What assumptions are made when drawing a PPC?
2. Use set notation to describe a PPC diagram, i.e. use set notation to describe the three regions in the diagram (e.g. the "attainable set" might be defined as $A = \{(x,y): \text{Assumptions... hold}\}$).
3. Use a PPC diagram to illustrate:
 - (a) The idea of scarcity;
 - (b) The concept of a "trade-off";
 - (c) The economist's concept of cost; (d) Increasing cost.
4. What do we know about a point "inside" the PPC?
5. Why do economists assume that the inputs and the two outputs are real variables, i.e. can be represented by real numbers?

6. Explain why economists usually draw PPCs concave to the origin. How would you interpret a straight-line PPC or a PPC that was convex to the origin?
7. How would you interpret a PPC that was made up of *three* straight-line segments? (Think about question 6.) What would it mean if the PPC of one economy was "close" to being a straight line (but still concave) while the PPC of another economy was "very" concave? Would it be possible for a PPC to be made up of two segments each parallel to one of the axes and meeting at some point in the plane?
8. The Sleemanian economy has a PPC with consumption goods on the X-axis and capital goods *on* the Y-axis. How would the rate of growth of the Sleemanian economy be determined by its choice of the mix of the different types of good?
9. Can a PPC shift in towards the origin? If so explain what this would mean and provide at least *one* example from economic history.
10. What would happen to the PPC if the rate of technical change increased?
11. Why does economic growth mitigate distributional problems?

A 3. COMPARATIVE ADVANTAGE ASSIGNMENT

FOLLOW THE STANDARD INSTRUCTIONS FOR DOING THE ASSIGNMENTS.

This assignment is also here just to remind you about some material that you learned in ECON 206 but may have forgotten. I **will not examine you on this material** although I will provide you with a key to the assignment. You may be surprised at how little you know about **the theory** of comparative advantage and may not know how to tackle some of the later questions. Do not be dismayed by this – you are not alone! (For example I do not cover all of this material in my ECON 206 lectures.) However, you may see that those principles texts that I want you to have access to are likely to come in very handy as we progress through ECON 208. Indeed, it is a good idea to consult the appropriate chapters of your principles texts before reading the corresponding chapters in your intermediate theory and upper division classes. If you don't have a good intuitive grasp for the material in ECON 206 and 207 then you may have problems in your upper division courses. (Where did you read that before?)

Andorra and Brazil have the same endowment of resources.

The four cases below show possible PPCs for these two countries:

- (1) A can produce 15 Ys or 15 Xs.
B can produce 10 Ys or 5 Xs.
- (2) A can produce 15 Ys or 15 Xs.
B can produce 10 Ys or 10 Xs.
- (3) A can produce 10 Ys or 5 Xs.

B can produce 5 Ys or 10 Xs.

- (4) A can produce 10 Ys or 10 Xs.
B can produce 20 Ys or 5 Xs.

For each case:

- (a) Plot the PPCs.
- (b) Write the equations of the PPCs.

Determine:

- (c) Which country has an absolute advantage in each good?
- (d) Which country has a comparative advantage in each good?
- (e) The limits upon trade, i.e., what are the maximum prices each country would accept/would require in order for trade to be beneficial?

Finally, and for (1) only:

- (f) Choose a feasible trade ratio and demonstrate that trade increases both country's, and hence, world output.(See H&R pp.42-45.)

A 4. MARKETS AND PRICES ASSIGNMENT

FOLLOW THE STANDARD INSTRUCTIONS FOR DOING THE ASSIGNMENTS.

1. What is a market?
2. How is the term price used in supply and demand analysis?
3. What is an exogenous variable? Which demand side variables are exogenous? Which supply side variables are exogenous?
4. What is an endogenous variable? Which variables are endogenous in the supply and demand model?
5. What do economists mean when they use the phrases: “an increase in demand” and “an increase in the quantity demanded”, “a shift in supply” and “a movement along the supply curve”?
6. Why is it incorrect to talk in terms of changes in demand leading to changes in supply?
7. Explain why we cannot **prove** that demand curves always have negative slopes.
8. Explain why when an **increase** in demand is accompanied by a **decrease** in supply we can only predict the behavior of one of the endogenous variables?
9. If price **falls** and quantity **increases** and there has been a change in only *one* of the exogenous variables what can we say?

10. If price and quantity **both** fall what can we deduce has happened to the demand and supply curves?
11. Explain what is meant by the phrase qualitative comparative statics (QCS).
12. What are the usual assumptions that underlie the qualitative comparative statics (QCS) analysis of the supply and demand model? Why are these assumptions made, i.e. what sort of problems are we trying to avoid by making these assumptions?
13. What are the chief economic assumptions underlying the supply and demand model? Why are these assumptions made and how might they restrict the range of application of the model?
14. What does the phrase “partial equilibrium analysis” refer to? Give an example of the difference between partial and general equilibrium analysis.

A 5. NUMERICAL SUPPLY AND DEMAND ASSIGNMENT

FOLLOW THE STANDARD INSTRUCTIONS FOR DOING THE ASSIGNMENTS.

For each of these questions:

a) Draw a diagram (not necessarily to scale) labeling axes (think about this very carefully!), curves, and indicating slopes and intercepts.

b) Solve for the equilibrium levels of price and quantity transacted (show your working in every case).

c) Comment on anything that is noteworthy in the example;

d) And in cases **2-8** and **10** draw a second diagram to show how the example compares with the base case (**1** or **9**) and comment on anything that is of interest in the example.

1)
$$\begin{aligned} Q^d &= f(P) = 200-5P \\ Q^s &= g(P) = -40+3P \\ Q^d &= Q^s = Q^e \end{aligned}$$

2)
$$\begin{aligned} Q^d &= f(P) = 240-5P \\ Q^s &= g(P) = -40+3P \\ Q^d &= Q^s = Q^e \end{aligned}$$

3)
$$\begin{aligned} Q^d &= f(P) = 200-5P \\ Q^s &= g(P) = 3P \\ Q^d &= Q^s = Q^e \end{aligned}$$

$$\begin{aligned}
 4) \quad Q^d &= f(P) = 240-5P \\
 Q^s &= g(P) = 3P \\
 Q^d &= Q^s = Q^e
 \end{aligned}$$

$$\begin{aligned}
 5) \quad Q^d &= f(P) = 240-5P \\
 Q^s &= g(P) = -80+3P \\
 Q^d &= Q^s = Q^e
 \end{aligned}$$

$$\begin{aligned}
 6) \quad Q^d &= f(P) = 200-5P \\
 Q^s &= g(P) = 200+ 3P \\
 Q^d &= Q^s = Q^e
 \end{aligned}$$

$$\begin{aligned}
 7) \quad Q^d &= f(P) = 100-5P \\
 Q^s &= g(P) = 200+ 3P \\
 Q^d &= Q^s = Q^e
 \end{aligned}$$

$$\begin{aligned}
 8) \quad Q^d &= f(P) = 200-5P \\
 Q^s &= g(P) = -160+ 3P \\
 Q^d &= Q^s = Q^e
 \end{aligned}$$

$$\begin{aligned}
 9) \quad Q^d &= f(P) = -40+3P \\
 Q^s &= g(P) = 200-5P \\
 Q^d &= Q^s = Q^e
 \end{aligned}$$

$$\begin{aligned}
 10) \quad Q^d &= f(P) = 3P \\
 Q^s &= g(P) = 200-5P \\
 Q^d &= Q^s = Q^e
 \end{aligned}$$

A 6. SUPPLY AND DEMAND ASSIGNMENT

FOLLOW THE STANDARD INSTRUCTIONS FOR DOING THE ASSIGNMENTS.

1. Explain what you can **deduce** if you know that there has been an **increase** in the price of widgets accompanied by a **decrease** in the number of widgets bought and sold **and** you somehow have learned that only one of the exogenous variables in the model has changed.
2. Explain what you can **deduce** if you know that there has been a **decrease** in the price of widgets accompanied by an **increase** in the number of widgets bought and sold but you have no idea – the real world situation – how many of the exogenous variables in the model may have changed.