

A Study Strategy for ECON 101

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Introduction

Every year, I have several conversations with students about studying. Most are a variation on the following theme:

Student: “Prof. McHenry, I thought I understood the concepts from class, but the grade on my first midterm was lower than I wanted.”

Me: “How did you study for the exam?”

Student: “Well, I went over the class notes, did the practice problems, and read the chapters in a textbook. Everything made sense to me, so I thought I was prepared.”

I think this study strategy is very common. Although popular, it is passive and relatively unproductive. This document describes how I typically respond to students who want to study better for economics classes (in particular, ECON 101).

1 Think critically

First of all, get in the habit of thinking critically about economics. It is tempting—and sometimes even enjoyable—to sit back and consume economic thought. This is passive. I want what I present in class to be simple and compelling. The benefit of that style is that ideas are not mysterious and students are engaged. A potential cost is that simple and

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compelling ideas seem obvious—sometimes trivial—when you’re just listening to them. And students don’t feel the need to study things they think are obvious and trivial.

Don’t *just* listen! Think critically. Don’t just accept what I say. Question it. This is active. When I say that a producer wouldn’t bring a good to market unless the price was higher than the incremental cost of production, you shouldn’t just nod your head. You should try to think of an example where that’s not the case. When I say that we’ll make five assumptions about economic and political institutions, think about whether we could productively make fewer assumptions instead. When I say that a tax on price elastic suppliers might be a bad idea, prove to yourself that such is or is not the case.

You won’t have time in class to work through all the alternative explanations, look for holes in arguments, and prove statements to yourself. Spend study time outside of class doing so.

Critical thinking is nit-picky and precise. Try to avoid using sloppy language like “the price increased, so demand fell.” That’s wrong. The quantity demanded fell, but the demand curve (“demand”) stayed the same. Avoid saying “markets induce the best possible outcome”: rather say, “the market allocation maximizes total surplus.” Do you see the difference? Many people think that “the best possible outcome” might trade a little total surplus for a more just or equitable outcome. But it’s harder to argue that the market allocation doesn’t maximize total surplus (given some assumptions like the absence of externalities and market power).

Critical thinking is a life skill. It defends you from being duped by persuasive but faulty logic. It prohibits emotions from entering the subset of decisions that are best made by the cool-headed. It gives you a precise understanding of course material so you know exactly what an exam question is asking and how to answer it.

2 Create a parallel set of class notes

You come to each class and take notes, which are basically an abbreviated transcript of what I said in class. They're probably messy, and sometimes they miss things. They include almost nothing that wasn't specifically addressed in class time. Going over these notes again and again will not prepare you very well for an exam.

Here's a suggestion: after each lecture (and before the next one), sit down with your class notes (transcript) and another, blank document (on paper or your computer or iPad or whatever). On the blank document, fill in a parallel set of notes. Work through all the points from the lecture in sequence, first rewriting the big ideas and definitions. Rephrase things. Drop extraneous information. Think of yourself in two months studying for the final exam: will you really know what "story about gas stations" means? If not, then write out a more complete description of that story that you didn't have time for in class.

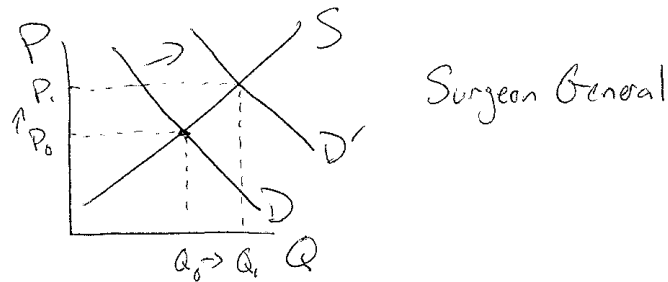
Redraw all the graphs, too. Make sure everything is labeled, that you follow each logical step, and that you understand the interpretation of the graph and the lessons I was trying to draw from it.

For each application of a model or graph, think about ways that it could have been tweaked. If I showed a demand increase in class, then you should add a graph that shows demand decreasing. If I showed inelastic demand, then you should add a graph that shows elastic demand. How would the narrative change? What's a scenario that would support the new feature of the graph? How could the conclusions from the graph change? Answer those questions in your parallel notes.

Here's an example: Suppose I told a story in class about the market for bananas. The Surgeon General released a well-read report that touted new-found health benefits from eating bananas. The demand curve shifted to the right, the equilibrium quantity increased, and the equilibrium price increased. Here's what I drew in class and displayed on the projector:

Figure 1: What's on the projector in class

Bananas

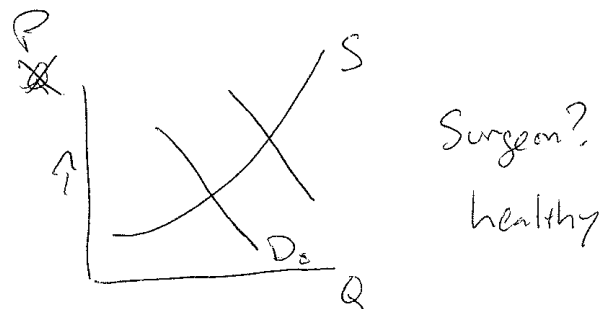


The story was in sentences and paragraphs, but I just drew the graph and a couple of phrases for everyone to see.

Here are your initial notes from class:

Figure 2: Your initial notes from class

Market for Bananas

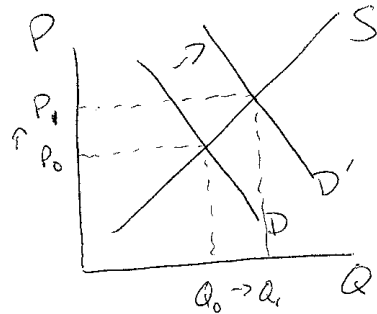


You weren't sure who released the report, but you noted that it had something to do with health. You didn't precisely label everything (the higher of the two demand curves, in particular).

Here's a page from the parallel notes you created that night after class:

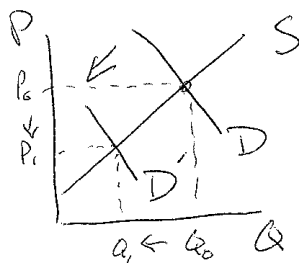
Figure 3: Your parallel notes

Bananas market



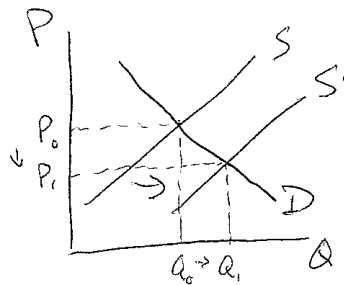
Surgeon General released report saying bananas are healthier than thought before $\Rightarrow$ higher willingness to pay for ~~the~~ bananas (demand shifts right)
 $\Rightarrow$ higher market price
 higher market quantity

Demand shifts left



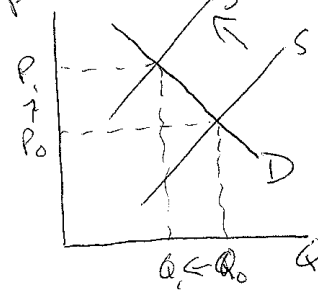
Price of oranges (substitute good) decreases $\Rightarrow$ more orange quantity demanded, fewer bananas demanded

Supply shifts right



Great weather makes banana trees grow faster, bigger $\Rightarrow$ cheaper to harvest bananas

Supply shifts left



Wages of banana-pickers increases $\Rightarrow$ higher cost of harvesting bananas

You needed to look up “Surgeon General” on Wikipedia to figure out who that is. It might not be clear in a couple of months how “Surgeon? healthy” implied an increase in demand. So your parallel notes clean that up.

The parallel notes also document what the graph would look like if demand fell or supply increased or fell. You figure out narratives that are consistent with those changes in demand and supply (e.g., a change in price of a substitute good). These were not explicitly worked out in class, but they’re valuable to your studying. It’s good practice. It gets you thinking outside the box. It checks for holes in your understanding. It anticipates future exam questions, many of which are just tweaks on applications from class. I write many (perhaps the majority of) exam questions using the following procedure: take a class example, change the market context, tweak something (e.g., change a demand increase to a demand decrease), and ask students to work through the same steps we did in class.

If you can’t figure out a story about supply increasing in a particular market for which we discussed demand in class, then you should go back to your notes or the textbook or talk to me: send me e-mail, come to office hours. It’s important that you be able to come up with scenarios where economic concepts from class arise in applications. Otherwise, it will be difficult for you to apply economic ideas on exams. Perhaps more importantly, this kind of studying will help you apply economic ideas in your schooling, work, and relationships.

3 Explain economics to other people

A third suggestion: talk to people about economics. It could be a study group made of classmates. But it might be just as productive to talk about economics to people who don’t know economics. Tell your roommate what we talked about in class. Tell your Aunt Myrtle.

You can also talk to me. One former student performed poorly on the first midterm

exam. She was disappointed, but more importantly, she was determined to understand economics. She studied hard on her own. Then, she came to my office and taught me the material. She drew graphs, walked through the logic, explained the intuition. I was the audience for most of our talks, just providing sparse hints and tips along the way. The student got an A in the class.

Why talk to others about economics? Verbalizing ideas forces you to use them. Many times, it'll be a struggle. That means you don't know the ideas very well. It's good to recognize this before an exam. When you can't express yourself, or your audience can't understand, go back to your notes, my office hours, the textbook. Figure out what tripped you up. Then, try to explain the concepts again. Identifying holes in your understanding is an important step toward understanding.

Conversations about economics cement the knowledge you already have. They might also provide a springboard for interesting applications we haven't addressed in class, or new ideas that could be productive to work through. They might even be fun.

Conclusion

So those are three suggestions about studying economics: 1) get in the habit of thinking critically about ideas, rather than just consuming them, 2) make a parallel set of class notes that fill in details and work out all permutations of presented examples, and 3) explain economics to people. What does all of this accomplish? All three practices reveal holes in your understanding in ways that "going over notes" does not. They get you more active in pursuing knowledge, which then sticks with you, rather than the way passively consumed ideas tend to float away somewhere. In a very practical sense, these practices will help you succeed on exams, since they involve anticipating exam questions as well as understanding course material in a deeper and more applicable way.