

First Year of Ph.D. Advice

Brian Murphy

1. Introduction

Welcome to the University of Houston Ph.D. program in economics. This letter is meant to be a guide for navigating your first year successfully. Truth be told, first year will be the one of the most challenging years of your academic career. However, it is very manageable. This document will outline the things that I found helpful in my first year, things that I wish I did sooner to make the adjustment easier.

I came straight from undergrad, so a lot of the models learned were brand new to me, while others had previously seen them. Thus, my adjustment period was a lot longer, and more painful than others. However, everyone had 'growing pains' while completing their first year, so this letter will be useful to all at some point during your education.

2. Math Camp

Math camp is very useful. You should take it seriously. All of you will find a weakness in the first year, and these notes are very useful when you need to refresh yourself. For example, I always struggled with the envelope theorem. The notes provided I used almost everyday to drill the idea into my head. The theorems presented you will use throughout the first year.

Not only does math camp introduce you (or refresh you) to the mathematical skills that you will use extensively this year, but it introduces you to the classmates that you will spend your next 5-6 years with, older students who can become mentors, and/or friends, and professors who want to see all of you succeed.

At the end of each lecture you will get homework. Do the homeworks. The problems that you will solve in those homeworks are often pulled from class notes. So, to get a jump start, the homeworks are very beneficial. They also give you a taste of what is to come in the coming months. Start forming healthy habits now.

A lot of you will be adjusting to life in the US or Houston during math camp too. It is scary, and lonely, but all of you are going through it together. I know I struggled with loneliness early on, since I didn't know anyone. Get dinner with your cohort and start building the connection with them as soon as possible. This leads me to my next section.

3. The Cohort

Your cohort is **the most** important resource you have. You all will be going through the same thing. From my first year with my cohort, here are some thoughts.

1. Be friends with everyone. Some people will find some things easier and others harder. Your job is to learn everything. Instead of spending an hour learning something you don't understand yourself, ask the person who is really good in that area, and it will take 10 minutes. Time is everything, so that extra 50 minutes is incredibly useful.
2. Do not create separate groups. This will make people upset, and create a tension in the group.
3. There will be cultural differences. What's normal for me may not be normal for you. Communication about these things is important, and makes people comfortable around each other.
4. Spend time together. You essentially are given a built in friend group. Go to restaurants together (Houston has an incredible food scene), explore the city together, go to bars together, or whatever it is you are interested in. Not only will this create closer bonds, but it will take some stress off, or you can talk through things together. First year is hard, and not to be done alone.
5. Use the office to your advantage. Everyone has a desk. If you are present, it is easier to ask questions.

Don't only hang out with your own cohort, though. The older years are great resources. Talk to them, get their advice, and hang out with them too. I found a lot of success in the program when I became friends with older years, picking their brains on study habits, and how to prepare for exams or the comps for certain professors. They have been through the first year, and they know what it takes. Plus, they all want you to succeed. Use every year as a resource. Pick their brains.

4. First Semester

At this point, you have gotten through math camp, made some friends, and slightly adjusted to the heat. The first semester will be very similar to masters work, from what people with masters degrees have said. However, this doesn't make it a walk in the park. You will have a problem set for each class due every week, on top of studying material, and studying for exams. Problem sets are important. Most problem sets are incredibly similar to exams, and the comps, so take them serious.

I struggled a lot for the first half of the first semester, but began to turn it around in the second half. Here are some things that I found useful in my turn around.

1. After class, go through the notes. I would look at the set up of problems outlined in the notes, then solve them. Once I solved them, I would look at my notes, and see where I went wrong, and revise that. You learn the most when things are fresh in your head.
2. Once the notes make sense, add a wrinkle to the problem, i.e. imagine a Cobb-Douglas Production Function with two types of capital, and the household invest in both of them. Logic through these problems. It will create a deeper understanding.
3. Make sure you are reviewing things throughout the semester. Don't just ignore what you learned in the first week right after and never touch it again. Continuously review everything. This makes finals (& comp prep) so much more manageable.
4. Create a schedule and stick to it. This schedule may vary day by day, (if you have an 8:30 am class your morning will be different from a 2 pm class), but routine is important.
5. Attend the TA sessions. Some weeks if the homework was easy for you, you may not want to go. But the TA will offer intuition or a different way approaching a problem. This will only grow your knowledge.
6. Do problem sets as early as possible. This gives you time to revise and discuss with classmates. A successful strategy I found was doing the sets on my own until I got stuck, then talking to other for advice. Copying problem sets from others won't help you come exams or comps, so it's important to ask for guidance, not solutions.
7. Read different sources. Sometimes you may find a source confusing, or not thorough. Look for other sources. People learn different, so an explanation that worked for me doesn't necessarily work for you.
8. Don't be scared (or embarrassed) to use an undergraduate or intermediate textbook as a source. They usually offer a lot of intuition, which is incredibly beneficial. We don't just care about the math, but we also want to know what the math tells us. If a grad level textbook isn't doing a good job, lower levels usually will, because they are built on intuition. I did this countless times, and I always got a deeper understanding.
9. Statistics matters. Some people take it less seriously since you don't have a comp in it. However, your grade can help you if you are on the bubble, and the concepts will be applied in every class. Micro I, Macro I, Micro II and Macro II will all use concepts from stats.
10. GO TO CLASS. Don't skip any classes, unless you are sick or have a valid excuse.

5. Winter

I can tell you that handing in your last final will be a great feeling, and you should be proud. First semester, in my opinion, is the most difficult part of first year. At this point, you need to relax for a few days. I didn't realize how exhausted I was until the first few days after finals, where I slept almost the whole time. This is so important to do. Put the books away for a few days and sleep.

Once you have recovered some sleep, do some things you like. You have about a month off before the start of the second semester. If you stay in Houston, go to museums, or the park, or cafes. Refresh yourself and your body.

However, don't totally forget about school. I would set aside a 4 hours a day to continue drilling the material you are weak in. You don't want to lose progress. If you don't study for a month, you will lose a lot from first semester, which will then make comp prep harder. Keep the ideas fresh in your head, keep working over break, but make sure you are relaxing.

For example, you can sleep in every morning, eat breakfast, watch an episode of a tv show, then hit the books from 10am-2pm. Then you have the whole afternoon and evening to explore, watch movies, or whatever it is that you do to relax.

People may have differing opinions on this, but don't try to teach yourself what you will learn next semester. It's very difficult to teach yourself these things, plus, you want to ensure you have mastered first semester, since a lot of the ideas in second semester build off of first.

6. Second Semester

The second semester will be the harder of the two semesters, material wise. For me, I found it a lot more manageable, however. I had adjusted to life away from home, and had figured out how to be successful in the program. While the material is harder, you are more prepared for it, which in a way makes it easier. I found myself much happier this semester.

This material is brand new for everyone. Once the schedule is announced, again, follow your schedule. Keep up with the problem sets. Whatever success you found in first semester, continue with that strategy. Chances are if it worked then, it will work again.

Again, homeworks are super important. Make sure to do them, attend class and attend the TA sessions.

Just like last semester, do not ignore econometrics since you don't have a comp in it. It's a very important subject that you need to be an expert in.

7. Comprehensive Exam

You will have around a month from the end of the semester to the comprehensive exams (it varies, however). Just like going into the winter, take a few days off. I took 3 days off, where all I did was sleep, watch sports and tv, and eat. Take your mind off of things for a few days, because this will be the most stressful time of the year.

After you have recovered for a few days, spend about a week reviewing everything. Find potential weak areas. You are bound to have forgotten parts of first semester, and you know where you are weak from second, so those should be your points of emphasis for this week.

After you have reviewed everything, do problems. You have access to old comps, you have your old exams and problem sets. Do all of them over. Try not to use anything, but if you get stuck, consult a textbook, notes, or a classmate.

The strategy that I found most effective was spend all morning (8am-noon) completing problems. The comps are four hours so I wanted to spend four hours doing problems (no distractions either, leave your phone alone). This conditioned my brain for long periods of problem solving. At first, it will be hard (you aren't used to doing it for the long) but it becomes easier over time. After the problems were completed in the morning, I spend the afternoon discussing them with other, revising them. This made me figure out weak areas, so I used the evenings to drill those areas. This is an every week day thing.

The weekend I used to continuously drill my weak areas in. There isn't as much time as you think in preparing for the comps. I only took one day off during this period. You will be tired, stressed. This is normal.

As you are nearing the comps, you will have a lot of emotions and feelings floating around in your head. I tend to be an anxious person, so I always thought the worst. But, if you have been putting in the work, you will be fine.

Two final things. Comp prep is a marathon. Not a sprint. Working 8-10 hours a day is better than 18 hours, then 2 hours, and being too tired to do anything. Be consistent and keep a balanced schedule, treat it like a job, and don't create bad study habits.

Finally, you don't run a marathon right before a marathon. The last few days should be very light study days where you focus on areas you are weak. Don't study for 12 hours the day before the comp. In my opinion, you will perform better with good sleep, and feeling refreshed. The Sunday and Monday before my macro comp (Tuesday) I maybe did 3-4 hours each day, not doing anything crazy. Problems in areas I am weak, but for the most part, sleeping, eating, and just getting mentally ready for the comps. The same for my micro comp (Thursday).

After you complete the comp, sleep, and relax. There is no reason to stress over the exam anymore, you can't change the results. Just take time off. If you did not pass, I would recommend a similar routine the second time.

8. General Advice

1. You are here for a reason. Remember that. The faculty believes in you and wants you to be successful. Imposter Syndrome is real, talk through these feelings with your cohort, or a professional. You aren't alone in feeling that way.
2. Revise exams after you take them. Find out where you went wrong, and work in those areas.
3. Don't be scared to talk to professors in their office. Go over the exams with them, and get a clearer understanding.
4. Ask questions in class. Chances are if you are lost, someone else is too. Questions will help everyone. The only dumb question is the unasked one.
5. Don't abandon the things you like doing. If you like watching sports, carve out time to watch. If you like exercising, carve out time to do that. You **need** things to do outside of school to take your mind off the stress.
6. Exercise. You will be sitting for long hours solving problems and studying. Weight gain is easy. Try to have some activity every day. Whether its a walk to the office, that's something. If possible, go to the gym. Its a good stress reliever.
7. Keep up with personal hygiene. It's easy to be lazy and cut corners with this, but don't. Hygiene is important.
8. Listen to your body. You will not be productive if you are hungry but don't eat since you are studying. Don't 'power through' sleepiness. Take a nap, wake up and get back to work, You will see increased productivity.
9. After some point, there are decreasing returns to studying. If you study from 8am until 6am, for example, and sacrifice sleep, you will be worse off than if you studied until 11pm, and slept all night. Your body needs sleep to recover, and process the information you are giving it. If you eliminate that, you won't remember what you reviewed.
10. Make sure to talk to those you love outside of the program. Friends, family, all of them.
11. Go to therapy. Talk about the stress you are feeling. First year is **NOT** made to break you, but to teach you the theory of economics. If you are feeling stressed, or burnt out, you need to talk about it with someone, and professionals tend to know how to deal with these problems better than untrained friends.
12. A lot of first year is about perseverance, and finding healthy ways to get stress out. I have given a lot of ideas of potential stress relieving things, but ultimately, you have to find things that work for you.

9. Example Schedule

This is an example of what my schedule looked like during the semester, it was much different for comps. I had 8:30 am classes both semesters, which this will take into account. We usually reviewed problem sets a day or two days before they were due, but this varied, so I won't include it.

Sunday: Wake up at 7 am, make breakfast, go to Church. Get home, pack lunch and go to school. Work from around 9-7, come home, eat dinner, watch a movie and prepare for the week. Go to bed around 11pm.

Monday: I had a 8:30 class. Wake up around 7:30, eat breakfast, attend class. After class, review material. Attend second class, review material. Study the material learned today, connect it to old material. I would eat dinner around 5 pm, then work from 6pm-11pm. This is usually when I would do homework. When I got stuck, you switch back to reviewing where you're stuck, then try it again. In bed by midnight, after showering, brushing teeth, packing lunch, etc.

Tuesday: No morning class. Tried to get to school by 8:30, study all morning. Go to class, review material after class. Eat dinner around 5pm, then work on problem sets from 6pm-11pm.

Wednesday: Same as Monday

Thursday: Same as Tuesday

Friday: Attend TA sessions in the morning, then go to the dining hall for half priced lunch. Come back, review errors in problem sets, then review material that I was confused with during the week. Friday was my decompress night, so at 5pm I would head home, eat dinner, then usually go to a bar and have a beer with friends to decompress. If you don't drink, be with people this night, you need to decompress after the week.

Saturday: Sleep in (I don't sleep in later so usually like 8:30 am). Wake up, make breakfast, head to the office, study weak areas, and start the problem sets. Dinner around 5pm, then light studying in the evening, maybe another 3 hours. I tended to review stuff from earlier in the semester to keep it fresh in your mind.

While I didn't explicitly write it in, I always made time for the things I liked. In the fall, I made sure to watch every Philadelphia Eagles (my cities football (American football) team). This is something that took my mind off of school and let me enjoy something I loved.

Be prepare to work for 80-100 hours a week. Seriously. My average week was around this.

10. A Final Note

This will be one of the hardest years of your life. However, you are all meant to be here. Work hard, and it will pay off. Dr. Craig once told me that you will pass the comps if

you work hard enough. So, work hard everyday.

I routinely reference a speech made by a US Navy Admiral about 10 lessons that BUD's (Navy SEAL Training) taught him. I think the lessons are valuable to anyone starting a Ph.D. program. Here is the link: <https://www.rapidcitydiocese.org/wp-content/uploads/2018/03/10-Life-Lessons-from-Basic-SEAL-Training3.pdf>

Be excited for this chapter of your life. You got this. Believing in yourself is one of the most important things you can do. Mindset is everything. Believe you will pass, but work hard to ensure it.

Please use me as a resource. I am here to help each and every one of you pass your courses, the comprehensive exams, and talk about research with.

Good luck!!

- Brian Murphy