# How to survive your first year of graduate school in economics

### Matthew Pearson\*

November 8, 2005

#### Dear First-year Graduate Student,

Welcome to the threshold of hell (just kidding, more like the patio, or courtyard of hell). As you begin your first year of graduate school, we, your colleagues who have survived our first years in the program, have collected the following suggestions and advice that we hope will help to make your first year a successful one.

This letter is titled "How to survive your first year," but perhaps a more appropriate title would be "How to make it to your second year." You see, nothing is going to stop you from surviving your first year but you yourself. Unless you simply stop going to class, you will survive your first year. You may be exhausted, burned out, angry, and hating economics by then, but you will survive (this is good news; you have one less thing to worry about). At most schools, however, success in the first year is measured mostly by one thing: your score on the core theory prelims. And as such, most of this letter is written with this goal in mind.

However, while it may be good to make it to your second year, none of us want you in the process to experience the kind of burnout and bitterness described above, so, on second thought yet again, the most appropriate, albeit verbose, title for this letter might rather be "How to thrive during your first year, and thereby making it to your second year." The advice for both of these goals, however, is the same. Thriving during your first year is highly correlated with

<sup>\*</sup>UC Davis economics grad student of the entering class of 2003 (pearson@ucdavis.edu). Special thanks to Alan Barreca, Amanda Kimball, Shahar Sansani, Scott Cunningham, David Ong, and Jason Lindo for their helpful comments. This document was developed as part of the mentor program for first-year graduate students at UC Davis, a program founded by the economics Graduate Student Association representatives in the fall of 2005. Permission is hereby granted for properly attributed non-commercial use by anyone, including students in other departments and programs. Feel free to cite, copy, post, or distribute any parts that you find helpful.

passing your prelims. And as such, the sage advice herein is designed to help you become the best grad student you can be, to get the most out of your classes, to develop your intuition, to master the core theory, and most of all, to pass your prelims, all the while maintaining a loose grip on your sanity.

## Surviving the first year: a positive attitude, strong commitment, and lots of coffee.

First, however, while not surviving the first year (that is, leaving during the middle of the year) is quite uncommon, the feelings that lead one to make such a decision are common, and it is important to be able to recognize these feelings and deal with them appropriately. Fortunately for you, dear rookie, you have already taken the most important step in dealing with these difficulties: you have this letter to guide you through them. Anticipating the mixture of emotions you might feel is an important first line of defense. There are several specific feelings that it seems like every first-year student experiences, things that are important to know how to get past, things that can derail your progress if not recognized.

Hating the material Hating the material with an intensity becomes par for the course rather early on. No matter what you like about economics, I can guarantee that you will spend a fair bit of time your first year studying material that you do not like. Statements like, "this is not what I came here to study," or, "this is not why I like economics," or even, "this stuff is not economics at all," are heard from time to time. However, like almost any profession, learning the fundamentals is the least glamorous part, but it is indispensable. This year you will be learning the tools that every economist needs. It is rarely glamorous or fun, but once you have learned them, you will move on next year to things that you will find far more interesting, moving quickly ever closer to the particular research questions that inspire you.

**Impostor syndrome, or feelings of inadequacy** It is quite common to feel like you are the only one not understanding the material, even when your colleagues impress upon you that their difficulties are significant as well. If you are struggling with feelings that you are an impostor, that you do not deserve or are not prepared enough to be here, remember that the admissions process works, and you are here for a reason. The impostor feelings will only derail your understanding, because if you begin to feel that you are not capable of understanding the material, your study habits will begin to reflect this belief creating a self-fulfilling prophecy. I know of no other cure for these feelings that remembering that many successful grad students before you have felt the same way. If you are struggling in this area, talk to a friend or mentor for reassurance. Often these feelings come from fear of success as much as fear of failure.

Wanting to give up This is so common that it is often a running joke among first-years. Resist these feelings. You have to want the Ph.D. more than life itself, and willing to nearly kill yourself to get it. The first year is about learning that survival is not all about intelligence, nor passion, but commitment. Unless you're Goedel or something, then of course, this'll seem like math for idiots. But if you're a mere mortal from the humanities, you're going to end up like those kids on *Real Genius* screaming and going nuts. Watch *Real Genius*, actually. That movie is, emotionally, kind of the right movie that you may relate to.

It is very important to recognize, however, that you are in no position to decide for yourself whether you should give up (with some exceptions, of course). Assuming that you had some idea of what you were getting yourself into when you decided to come here, if you are seriously thinking of walking away from a program six months, give or take, from a Master's degree, you probably are not thinking clearly. Now is not the time to decide to quit! Keep telling yourself that you are not going to make any life-altering decisions until you are finished with the first year. Only then will you be able to think clearly enough about whether it is a good idea to burn the bridge to your Ph.D. The Ph.D. isn't for everyone, but you are in no position right now to decide whether it is for you; I don't care how many axioms of utility theory I am violating by saying this. So, wait until the summer to decide whether you want to quit! Some research in behavioral economics suggests that people are happier with decisions that they know are irreversible. Simply putting that decision out of the realm of possibility will relieve you of a lot of burden.

## How to get through to the second year: Pass the prelims in just 20 minutes a day!

Schools vary in how much emphasis is put on the prelims and how difficult they are to pass. In my program, UC Davis, the prelims are graded out of 5, with a 1.8 required to pass at the master's level, and 2.0 to pass at the Ph.D. level. Typically a third to half of the class will pass both prelims the first round. For those who fail the first round, the exams are administered again in September, a couple of weeks before the fall quarter begins. This is the second and last chance to pass. Typically another third or more of the original class passes this time. The remaining students are divided between those who prefer to leave with an MA and get a job, and those who cannot, for whatever reason, score above a 2.0. Keep in mind though, that it is rare for students in most programs to fail for no other reason than they lack the intellectual ability to pass. Some have failed to develop the human capital necessary to sustain the amount of study hours necessary to pass, and some have failed to develop the human capital necessary to study in order to really learn, not just memorize. Both of these problems are discussed below, and both of these problems are fixable if you begin to address them now.

1. Believe you can First of all, it is very important to believe that you have it in you to pass. As stated above, it is very uncommon to fail the prelims merely because you lack the intellect to master the material. The admissions process works. Those who lacked the talent to pass were not admitted into the program. By the way, this is not some Tony Robbins, positive attitude, half-time pep talk. Believing in yourself directly affects the quality of your studies. During my first quarter, I believed that if there was any intuition to be found in Microeconomic Theory (which I strongly believed there wasn't), I was not capable of finding it. So instead of studying for understanding (for example studying a proof until I understood what was being proven, why the proof proved it, and why it was important to prove it), I studied to memorize the material well enough (or so I thought) to b.s. an answer on an exam. The latter strategy worked in undergrad, but trust me, it does not work here.

Secondly, its important to learn from your mistakes. Grades provide an indicator of your likelihood of passing prelims, and at some schools they may influence your financial aid opportunities in future years. However, grades do not seal your fate. If you have been getting B's, you still have the opportunity to step up your level of commitment and give a strong performance on the prelims. Many students have done that successfully. Along the same lines, if you have been getting A's, you still have to watch out for the prelims. You may have developed the intuition, but you still need to have all of the course material at your fingertips in June if you expect to pass. Moreover, it's important to understand that even the best students can fail or do very poorly on an exam at some point in the year. It might be the first micro exam because you haven't yet developed the proper study strategies or test-taking composure. It might be the second quarter midterms after you let up due to your success in the first quarter. You might completely misinterpret a question because your nerves get to you. You might be blind-sided by something you thought you didn't need to study. The important thing is to move on and make the appropriate adjustments to ensure your success on the prelims—freaking out is a waste of your time and energy.

2. Start preparing for prelims early Second, begin to develop your strategy to pass very early on. Don't study like you have until September, study like you have until June, and study hard. It is very important that you plan to pass your prelims the first time, in June. This is a high expectation to have for yourself, especially considering that many students will not pass in June, but it is important for a number of reasons. First, your opportunities to learn from strong students diminishes considerably during the summer, because most of the strong students will have already passed and will not be studying with you. Second, you can count on being much more relaxed in June without the stress of knowing that you will have to leave the program if you do not pass this time. And finally, it affects how you plan your studying leading up to the exam, a good strategy for which is developed below.

This mindset of beginning your preparation early is critical for retaining the most important concepts beginning in the fall, and it really begins to affect your study habits in the spring. Set aside time to review, and stick to that schedule. Review key concepts, your old notes and exams, and old prelims to get a feel for the professors' testing strategy. Remember to start early. Most students who pass the prelims started studying before spring quarter. One idea is to pick one half of one day, perhaps Saturday afternoon, to review old material, organize your notes, and practice prelim or exam questions that test material that you have already covered. Some experimentation and compromise with your study group may be necessary to find what works best for you. I strongly encourage you to stick to this prelim study schedule even as midterms, homeworks, and teaching responsibilities demand more of your time. When you finish your classes in the spring and turn all of your attention to the prelims, you will be glad you did. Depending on when your department administers the exams, you may even have bought yourself a summer off with those Saturdays! And finally, if you do not pass in the first time, your preparation will still pay off, as you will already be organized and prepared to make the most of your time preparing for the second try.<sup>1</sup>

**3.** Develop your intuition I cannot stress this enough. As I mentioned above about studying for understanding and not merely memorizing, you must believe that the intuition is there and that the material will seem much, much easier once you have grasped it. As you study for prelims in the spring, you will begin to realize, if you have not already, that your first micro course was really just a handful of concepts applied in different ways. You will begin to understand things that you thought you understood in the fall (trust me, in most cases, you didn't). The earlier you grasp this intuition, the better. The type of exams that you will be subjected to require a level of understanding that was probably never required of you as an undergrad. When you aim for this kind of understanding, however, things become so much clearer (one way to develop your intuition is to study your assigned micro topics in Hal Varian's intermediate microeconomics textbook<sup>2</sup>).

Often the barrier to true understanding is the nagging sense that you have SO MUCH to study, so you really must move on to the next topic. However, grazing over lots of material gathering cursory familiarity can be, at best, far less productive than studying one thing until you really understand it and do not need to depend on memorized content, and at worst it can be time completely

<sup>&</sup>lt;sup>1</sup>By the way, depending on when your prelims are administered it is not a good idea to fill up your summer with travel or work plans that should be contingent on you passing prelims in the spring. Aside from becoming an obstacle to studying (should it be necessary for you to study for fall prelims), knowing that this obstacle is there will add more stress to your plans to pass in the spring. Leave yourself as much time as possible to devote to studying during the summer, and pray that you won't need it.

<sup>&</sup>lt;sup>2</sup>H.R. Varian. Intermediate Microeconomics: A Modern Approach. Norton, New York, 6th edition, 2003.

wasted. You will be surprised how adept you and your colleagues will become at convincing yourself that you understand something that you really do not. Repetition can do that to you, because it used to be sufficient for understanding when you were learning less challenging material, but this is no longer the case.

4. Develop your student capital The previous section should have given you an idea of the goal of studying, but the mechanics of studying are important as well, especially if you did not develop effective study habits as an undergraduate. First of all, you have probably heard by now the merits of studying in groups. Often this means simply studying alone in the presence of others, so that you have others to ask in case you get stuck. Being stuck on a problem for hours, getting nothing else done is no virtue. You are graded on the fruit of your labor, not the sweat. Learn to utilize the collective wisdom of a group in order to increase the studying efficiency for all involved. Primarily, this means swallowing your pride and asking questions even if you feel silly doing so. I suffered in silence for months because I was too embarrassed to ask when I did not understand. Learn how to ask questions of your fellow students, your professors, and your TAs. You will feel like an idiot on occasion, but this is much better than feeling like an idiot when you get your prelim grades. There is no place for pride when you do not understand.

Another advantage of study groups is that the strengths of others provide a public good which benefits the entire group. If you know you have certain weaknesses, then try to find someone to study with who can offset them. Simply having others around to help you get over a difficulty can save you tremendous amounts of time beating your head against a wall. There is no virtue in this, even though, for some reason, this is the kind of thing that grad students like to brag about (I spent eighteen hours on problem four, and I haven't showered in a week!). Remember, study skills are human capital, not merely a decision to study hard, so it may, as with me, take many months, or the entire year to learn how to study successfully (I have always been a bit of a slacker, and it was a brutal process to turn me into a diligent student), but you must continue to fight the good fight. Talk to your mentor, and remember, though you will have good days and bad days, you will be amazed at how far you will have come when you look back from the end of the year.

Also, consider developing your prelim study strategy around your study group. If you agree to meet regularly, you can discipline each other to stay focused on the prelims when you are tempted to study current material, and take turns presenting mini-lectures on important topics. By the time you reach the end of the spring quarter, you will have had time to listen to or give a short seminar on every major topic, and you will be well-prepared to begin taking practice prelims leading up to the exam.

Finally, develop an effective strategy for dealing with material in class. Primarily this means thinking through a note-taking and note-studying strategy that works for you. It is easy to assume that once you have completed the problem set for the week, you are finished studying. You aren't. Do not neglect your responsibility to learn the material presented in class, and spend time going over your notes, even if the payoff is discounted heavily because it lies months into the future (on your prelims). Perhaps you will take notes on a legal pad and then copy them neatly into a book after class as a way of reviewing. Perhaps you will take notes on loose leaf paper and transfer them into a binder with problem sets and other papers. Choose something that addresses your weaknesses effectively (I chose the loose leaf method after forgetting to bring my notebook to class constantly. I just carried around a stack of white paper, took notes on one side, and then put them in a binder later and made my own notes on the backs of the pages as I went back through them).

5. Rest hard Though it is of course important not to waste time, time spent recreating or resting when you need it is not time wasted. Of course you must be careful not to rest too much; however, usually for many of you the problem will be that you rest too little, not too much. Do not browbeat yourself with guilt if you need a nap, or if you need to close the books and go to bed because you are not getting enough sleep. Going outside and throwing the frisbee with your colleagues may be just what you need to refresh your study time later in the day.

As the title of this section suggests, however, recreate in a way that is beneficial to your overall goal of being a successful student. If you enjoy exercise, do not neglect it here, and if you do not exercise, perhaps consider finding some way to enjoy being active. Sometimes simply raising your heart rate can do wonders for your stress level. If you have a family, do not neglect them, as your family is your ally in being a successful student. Perhaps you will need to exchange some of the time that you might have spent vegging out on the couch instead engaging your spouse/partner/family in conversation. Being an efficient worker means trimming the fat from your schedule, and unproductive rest, like long hours in front of the television, should go before you cut out more important things like studying, family time, and exercise. I say this at the risk of pointing out the obvious, but you must monitor your rest time diligently, because you will be surprised how easily you can waste time with unproductive rest when you are tired, even if some sort of rest is precisely what you need.

Also, consider practicing taking some time off the day before your exams (no, I'm not kidding). Perhaps you should stop studying before dinner and rest on the eve of the exam. At least make sure that you get enough sleep. If this works for you, you might consider taking most or all of the day off the day before each of your prelims. This advice contradicts every instinct you will have, but if

you have followed the advice on studying to develop your intuition, you should know that last-minute cramming will not help all that much, but entering the test well-rested and relaxed might make a great deal of difference. Plan ahead, and this time off will not seem so costly, and you might learn to really appreciate it.

In closing, the advice in this letter might sound overwhelming, but it is only meant as a guideline. If some of the advice is not helping, then do whatever works for you. But most of all, remember that you are not alone. Your colleagues are experiencing the same trials and difficulties that you are, and they can provide valuable understanding and advice (and occasionally a strong drink). Please do not let help from your mentors, your colleagues, your TAs, and your professors go underutilized. Do not suffer in silence! I hope that you thrive in the midst of what will likely prove one of the most challenging years of your life. Butin spite of the challenge, I have yet to meet a graduate student who does not look back his or her first year with a great deal of fondness. A fondness for the friendships forged in the fiery furnace, the intellectual challenge that brought us to the limits of our ability, and a fondness for experiencing a real success that we will always be proud of. May it be the same for you.