

Hopefully Useful Thoughts After a First Semester as a Transfer Student in Physics at UC Berkeley (Fall 2022)

1. You need to know the math: all of calculus (your best bet would be to be able to score 100% in Math 1A-C), complex analysis, linear algebra and differential equations. The professors know you don't know all of this but they are not going to adjust their syllabus to you. The math is vital. As a physicist, you are expected to be able to teach yourself what you need.
2. You will be given way more to do than you ever have. Time management is the no. 1 thing you will take away from your first semester and possibly your college career. You will feel saturated, drowning. It will seem impossible to do well because of the time demands. However you will get faster, more efficient and learn the resources you need. Almost everyone new is drowning too.
3. More on resources, in lower division, you may discuss homework and bring your homework questions to professors in office hours. Do not try this in upper division. They are expressly there for help with concepts, not homework and not to teach you math. You have graduate student instructors (GSIs), and peer tutors through Student Learning Center for that.
4. Everyone wants to help you: career counseling, academic counseling, transfer counseling, professor office hours, GSI office hours, peer tutoring, discussion section. If you go to it all, you will not have time to do your own work and your own work is the only thing that counts. You must be able to produce! Plus a lot of stress comes from insecurity with understanding the material: longer spent with the material is most often the solution, not a student-led yoga session or even a grad student panel...
5. There is so much you would like to do and so little time. (Disappointing but true of any good life.) Compromise is the main thing I brought away from my first semester. Again unfortunate but true. My explanations on homework became cursory. I didn't often have time to type or even rewrite my homework. Halfway through, I realized I could never take all the courses I had planned. (You are obliged to maintain 13 units and 3 technical courses is a recipe for disaster especially in your first or early semesters...) I would really have to strategize and choose carefully. I barely found time to review, read more or prepare for lecture. Many weeks became damage

control as the weekly numbers of hours where good work could happen shrunk. Math is king but time management is the queen.

6. Before exams, you will never review enough, you will never have enough time. Grade deflation is real at Berkeley; grades are not unimportant but completely out of your control. Like NFL coach, Bill Walsh, "the score will take care of itself". Your job is to understand and reproduce. Every professor will test/grade differently, the material you have to learn is not different. You cannot start reviewing too early. Again time management...
7. It matters who you take a class with only if you can get a really exceptionally good instructor or avoid a particularly unpleasant one. Go to all of the first week lectures and sections to experience their style, expectations and their GSIs. Then choose and drop before wasting too much time doing double homework.
8. For research, knowing Python is vital. There are multiple courses (Phys 77, DeCal, ULAB and CS 61A) to give you a basis, something you can put on your resume. Also when applying to anything, rejection is the norm. Expect it. Acceptance is actually an anomaly.
9. You have dedicated administrators available to you, who in my case at least never made me feel like a number. However in the academic setting, you have to drop a lot of ego to ask the dumb questions that you need answered by tutors and GSIs otherwise you're not getting what you need to succeed. You need to speak up. You will not get anywhere near as much feedback as at Community College nor will you get as much personal attention. Learning to get your questions answered without having to completely alter your personality is valuable long-term.
10. 'Coping mechanisms': some may never feel the need for them, many (the majority) do. You will work hard, it is what you are here for, but you need a way to let down, change the chemical composition of your brain and basically, encourage higher dopamine production. Just please let it be healthy. Long run you are not doing yourself any favors by not having a healthy way of dealing with the long hours, pressure and stress. Find something you enjoy that is not detrimental to your health and make the time to do it. Resource. Recreation. This is valuable self-knowledge.

*. In case you didn't know, Berkeley is heavily impacted in housing: it is a total gamble, off-campus, on-campus and in between. And it is all expensive. Be lucky and rich.