

CS 492

Grad School Life

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Agenda

- What is the long-term grad school schedule like?
- Stipends etc?
- What is the day-to-day like?



Grad School Timeline

This varies from student to student and program to program, but generally:

- **Year 1:** Mostly classes (your specialty)
- **Year 2:** Classes + diving into research + quals
- **Year 3:** (post-quals): research focus, publish papers, finding thesis topic
- **Year 4:** publish publish publish, find thesis topic
- **Year N:** thesis proposal
- **Year N+k:** defend thesis, graduate. Generally $k < 2$



Advisors

- The **most important** aspect of grad school life
- This is not like the “academic advisor” you have in undergrad
 - More like an academic parent
 - Someone who will shape you in important ways
 - Someone who you will spend **a lot** of time with



Advisor Matching

- With some programs, you are matched with an advisor when admitted
 - This also depends a bit on you (“I want to work with X”)
- Others, you get to float for a year on fellowship, and decide later
- You will typically be bonded by year 2
- Advisor changes late in the program are rare and should be avoided, but it does sometimes happen
 - Usually this means losing time



Choosing an Advisor

- You will spend a lot of time with this person. Ask yourself:
 - Are you excited about their research?
 - Do they inspire you?
 - Do you get along personally? (this matters more than you might think)
 - Are your working styles compatible?
 - I'm very independent, he/she is a micromanager---not best fit
 - I'm a morning person, he/she is a night owl---not best fit
 - I have a family, he/she impinges on my family time---not best fit
 - Do they advocate for you?
 - Do you feel like you will grow with them, and they with you?
 - This is not just one way: you will eventually become an expert that they should respect!
- By end of year one, you should have answers to these questions. Are you happy with those answers?



The Advisor/Student Relationship

- This is more like an apprenticeship than typical faculty/student interaction (and you will experience it doing research as an undergrad too)
- It should not just be boss/worker. The goal is to help you grow into a peer
- Your advisor will demand a lot from you, and this will challenge you and help you grow
 - But know your boundaries



Classes

- You're most likely going to focus on two things:
 - **Specialization**: dive deep into your research area. You'll be taking advanced graduate classes and seminars in your area
 - **Filling Gaps**: classes you missed in undergrad/ms but need for your research. This might include undergrad level classes. **Your advisor will help you identify weaknesses and choose courses.**



Seminar Classes

- The usual goal is to get you up to speed in a particular research area. This means:
 - Reading and critiquing a lot of papers together
 - Working on research projects
- Ideal way to get exposed to different research areas and cultivate taste
- So, **take these early!**



Stipends

- Almost all CS PhD programs offer a stipend. This makes you luckier than most humanities grad students
 - Rate typically varies on location and the faculty's funds, but it's not a lot (think ~\$30K/year)
- You'll most often be paid as an RA (research assistant). I.e., you're paid to do research with your advisor
- Some programs require PhD students get teaching experience, so you may have to TA for a few classes (you get paid for this too)



Day-to-Day: Advisor

- Most advisors meet with PhD students once a week
 - Sometimes more, sometimes less. 1/hr per week is common
- You'll also probably participate in research group meetings with the professor's other PhD students



Early Years

- This will be both familiar and unfamiliar
- Taking classes, but much more focused and research-oriented
- You will be reading **a lot** of papers
- Getting involved in projects (usually in support roles), guided by advisor
- Helping write and submit papers
- In the early years you're testing the waters, finding what you like, learning the ropes



Post Qual

- You'll be done or mostly done with classes now
- You need to start making your own schedule and managing your own time
- You need to start diving deep on some research and taking the lead on papers.
- But you'll likely be helping author others' papers too



Thesis Proposal + Defense

- Last years. By now:
 - Your advisor is probably more hands off
 - You're coming up with your own ideas and executing
 - You're probably mentoring younger grad students
 - You've come up with a thesis topic and are finishing up one or two more papers
- When are you ready? There's no fixed timeline (though this depends on your constraints). Your advisor will know

