Grad School Applications Workshop

Thursday, November 18, 2021

Logistics

- How to find a program
- What is required in the application
- When are they due
- How much money does it cost

How to find a program

(If you have not already)

- Many websites have lists of universities that have PhD programs in Math / Applied Math, such as

- https://www.ams.org/find-graduate-programs

What is required

- What is always required:
  - A CV/resume
  - Essays
  - Transcripts
  - Personal and demographic information
  - Letters of recommendation

- What is sometimes required:
  - GRE test scores
  - Specific statements for fellowship applications
  - Optional uploads of, e.g. papers you wrote.

When they are due

- Most are due December or very early January
- Some can be due earlier (late November) and some can be due as late as mid- to late- January
- It is very important to keep a list of all programs you are applying to and deadlines, for you, and to give to your letter writers.

How much money does it cost

- Most PhD applications cost between $50 - $150. It adds up quickly!
- Many programs have fee waivers for students who require financial aid. It's always a good idea to ask (speak to program grad director / grad advisor).
- GREs also cost money if you have to take them.

How to write a great ...

- CV
- Personal statement
- Statement of purpose

How write a great CV

A great resource (also explains difference between CV and resume).

https://www.prepscholar.com/gre/blog/how-to-write-a-cv-for-graduate-school/

How write a great personal statement

- This document can be the same for all PhD program applications.
- Don’t make it too long, but make it informative; faculty read so many of those, we do not spend a lot of time reading it.
- Do not spend too long describing your life story, **unless you know** there are particular fellowships that fund students with specific circumstances that you may be eligible for (e.g. Cota Robles at UC).

How write a great personal statement

Things to focus on in particular:

- where you did your undergrad (and MS if you have one), what courses you took that prepared you particularly well for the PhD program
- Important internships / research experience in STEM that informed your desire to do PhD
- if there are weaker points in your transcript / CV (e.g. low GPA, lack of research experience, etc.), briefly explain circumstances (e.g. had to work throughout your studies to help your family, COVID!)

How write a great statement of purpose

This document needs to be tailored to each program you are applying to:

- Needs to convince the reader that you are the perfect student for **their** program.
- Generic statements are not a good idea, unless you have a stellar GPA and are a “cheap” student

How write a great statement of purpose

Things to focus on in particular:

- What kind of career you are ultimately interested in
- What kind of research you would be interested in, and why this program is the best for you
- Why the prospect of attending this university / living in this city is attractive to you

How write a great statement of purpose

Do your research! (it takes time!)

- Go to each department webpage, read up on PhD program details (what courses they offer in particular)
- Read up all faculty bio, select which faculty's research sounds most interesting. Go to their website, read up titles of papers, see if they sound interesting. Find at least 1 or 2 that you can discuss explicitly in your statement.

How to get the best letters of recommendation

- The big No
- Be seen in class
- Research and networking

The big No

- Generic letters from professors who do not know you are almost completely useless

“ Student X got a GPA of Y in my class and participated actively …” does not say anything about your ability to be a good PhD student.

- Admissions committees generally ignore these letters.

Be seen in class

If you really have to get letters from professors from a class, make sure you actively participate **above and beyond** everyone else

- Go to each office hour
- Ask them pertinent questions after each class
- Do every class extra credit you can possibly do
- Do class project / class presentation if there is an option.

Research and network

If you have done internships / research with a faculty / independent study with a faculty it's always better

- They know you personally
- They can attest to your ability to do research / think independently

You can ask postdocs / industry mentors as well, as long as they talk about your research.

How to get the best letters of recommendation

- Ask each letter writer early if they are OK writing letters (e.g. in November ideally).
- Provide them with a list of programs you are applying to, and their deadlines
- Provide them with your application documents (CV, essays), so they can get material to put in their letters from that.

Interacting with programs

- Making first contact

- Interviews

Making first contact

- It is **always a good idea** to reach out to professors you are interested in working with
- **Things to put in the first email;**
  - You are applying to the university, and interested in pursuing a PhD project with them
  - You **have read about their research** interest, and these projects seem particularly interesting
  - Would they have time to chat more about possible projects?

Making first contact

- If they do not reply, follow up **once**. “ I wonder if you had a chance to read my email … , would have time to chat … “

- When they reply, make sure you **prepare for your chat** with them (think of it as a job interview)

Interviews

- Be ready to talk about your own research experience / internships (2-5 min at least). Do not use “like” all the time, be professional.
- Make sure you know about the research of the person(s) you will interview with (take notes prior to the interview, so you don’t forget).
- Make sure you have particular pertinent questions to ask about this research (e.g. what are possible PhD projects within that research area, where is the field going in 5 years), and about the research group in general.

Once you've been accepted...

- How to choose the right grad school
- Practical and mental preparation.

How to choose the right school

- If you have been accepted to more than one program, this is a BIG decision to make.
- Think about:
  - Financial aspects (now and down the line)
  - Fit between your career plan and the grad program (is this program the best place to prepare you for the career you want)
  - Atmosphere within the program
  - Social and personal life (outside of the university)

How to choose the right school

- Once you have been accepted, the programs **cannot** rescind the offers.

- Don’t be afraid to ask the hard questions, go visit, talk to grad students there to get “insider information”.

Practical and mental preparation

Give some thought to transitioning into a grad program

- This is a big step!
- Do a little research: look at the courses, do some review in the summer before you start
- The first quarter/semester is very intense
- Know that you will get more acclimated and it will get better
- Connect with other students in your program for support and commiseration
- Stay connected to friends and family