




“How to Apply to Grad School for SoMAS Undergrads”



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Outline

- Intro
- Components of grad school applications
- External funding for grad school
- Deciding between grad programs
- Atmospheric Science resources

Panel Discussion with SoMAS Faculty and Current Grad Students

- Link: https://www.youtube.com/watch?v=MDY7_rXmZ-Q
- Discusses topics like deciding whether or not to go to grad school, gap years, types of graduate programs, undergraduate research experience, reaching out to professors, and more

How to find programs to apply to

- Google!
 - Look for advisors/programs that fit your interests
- Talk to your current professors at SoMAS
- Email old SoMAS students you know who went to grad school

How are grad students paid?

- If you are going to grad school for a MS/PhD in the sciences, **you should be getting paid a stipend!**
- Typically grad students are funded either as TAs (Teaching Assistants) or RAs (Research Assistants)
 - TA means you'll be helping with grading for a class
 - RA means you are just getting paid to do research for your advisor, so your funding is tied to their grants
- Different programs have different norms about when students are RAs vs TAs and for how long

When are applications due?

- For MS/PhD programs, applications to enter in a Fall semester are due in Dec.-Feb.
- For MA programs, due dates seem to be more variable
- Make sure to check the due dates early and write them down!

Components of an Application:

- Statement of Purpose/Personal Statement
- CV or resume
- Letters of recommendation
- Transcripts
- Application Fee
- GRE results (maybe)
- TOEFL or IELTS for international students (not discussed today)
- ***(previous contact with potential advisor)***

Personal Statements Overview

“identifying your goals, objectives, and motivations in pursuing a graduate degree.”

- Most (if not all) graduate programs will require some sort of personal statement
 - Also called “statement of purpose”
- Usually 2-3 pages
- May have to identify potential advisors

Some questions to think about...

- What might help the evaluating committee better understand you?
- Why are you interested in this field? What things have stimulated and reinforced your interest?
- How did you learn about this field (classes, seminars, work-experience)?
- What are your career aspirations?
- Are there any gaps or discrepancies in your academic record that need to be explained?
- What skills or personal characteristics do you possess that would enhance your chances for success in this field?
- Why should an admissions committee be interested in you?

Look at the personal statement prompt!

- You may have to answer specific questions or identify potential advisors
 - Not paying attention to the prompt will not look good

What should I write about?

- Your background - including why you're interested in the field
 - Stories are nice, but talk more about what the experience taught you instead of describing every detail
- What interests you about the specific grad program and potential advisor (if applicable)
- Extracurricular activities that show your values
- Your future career goals
- If applicable, explanations for a bad grade or a lack of research experience
 - Don't want to make excuses
 - But legitimate explanations (e.g., sickness, death in family, childcare responsibilities) are okay

Recycling Personal Statements

- It's okay to use very similar personal statements for different grad programs if the personal statement prompts are similar
- BUT make sure you change the name of the school and potential advisor in the personal statement!!!

Other Thoughts on Personal Statements

- Have someone else read over your personal statement to give you edits and proofread
- Don't go over the page limit
- Don't just rewrite everything that's on your CV/resume - tell a story and look to the future
- Start writing early to allow yourself time to revise

CVs/Resumes

- Not always required for grad school applications
- But good to have to send to potential advisors when you first contact them

CVs vs. Resumes

CV	Resume
<i>credential-based</i> , providing a comprehensive (and often lengthy) listing of one's education, certifications, research experience, and professional affiliations and memberships.	<i>competency-based</i> : intended to showcase the candidate's skills, notable achievements, and work experience to the greatest advantage.
Typically only used in academia, research, and medical fields	More widely used in private sector
No page limit	Typically limited to 1 page

What to include in CVs and Resumes?

- Some of the same stuff in both: Your name, email, educational background, technical skills
- Resume focuses on **experiences**
 - Add details about your work, internship, and research experience
 - Only add a section on awards/scholarships if you have room
- CV focuses on **education and credentials**
 - Research experience and maybe internship details can be included
 - Awards/scholarship section, presentations, publications, outreach, teaching

Other Tips for CVs and Resumes

- Use formatting that's easy to read
- Make sure to proofread your documents
- Create a resume/CV now (even if you don't need it urgently) and just add to it every time you have a new job/research experience, award, etc...

Resources for CVs/Resumes and Personal Statements

- http://www.atmos.albany.edu/student/jalland/Images/Website/CV_Article.pdf
- <https://www.colorado.edu/program/gates-mentoring/statement-writing>
- https://dornsife.usc.edu/assets/sites/903/docs/Personal_Statements_for_Graduate_School.pdf
- SBU Career Center:
https://www.stonybrook.edu/commcms/career-center/undergraduate/resumes_coverletters#view-resume

Letters of Recommendation

- Most schools require 3 letters
- Ask early! - at least 1 month before they're due

Why do they want Letters of Recommendation?

- “grad school letters of recommendation round everything out, giving a subjective glimpse of how others see you—your qualities, your competencies and your potential.”
- “Good letters cover your personal qualities and the accomplishments and experiences that make you stand out from others. They underscore the attributes that make you a match for the program to which you are applying.”

Who can I ask for a letter?

- Doesn't have to all be professors
- can be internship advisor or boss
- If you worked with a senior grad student, they can write a letter for you, but you may want to have the professor they work with sign it
- Overall want the person to know you pretty well

How should I ask for a letter?

- It's nice to ask in person if you can
 - If they agree to write on, follow-up with an email thanking them and provide your CV/resume
- Asking through email is good too
 - Definitely provide your CV/resume
- Don't take it too hard if they say no

Transcripts

- Unofficial transcripts are usually fine for applications
 - But if you accept an offer, you will probably have to send your official transcripts
- Some schools do have minimum GPA requirements
 - If you're just below this requirement and really want to go there, apply anyway
 - Your personal statement, CV/resume, letters of recommendation, GRE scores, and relationship with potential advisor can make up for bad grades

Application Fee

- Ranges from \$40-\$150
- If you can't afford to pay the fees, talk to your potential advisor or the graduate program director
 - They may be able to reduce the fee or waive it

GRE (Graduate Record Examination)

- Standardized test for graduate school, like the SAT or ACT for undergrad
- If required, most just require GRE general exam
 - But some departments require GRE subject tests too (I think this is pretty rare)
 - Math, chemistry, physics
- You have to schedule it yourself online (many dates available on Long Island and in the city)
 - Used to have to take it at a testing center
 - Because of COVID, it's possible to take it at home
- Total time is 3 hours and 45 minutes

Details of the GRE

- You can take it once every 21 days, up to 5 times within any continuous rolling 365 days
- You get your scores 10-15 days after taking the test
 - On the day of your test, you can designate up to 4 schools you want to send your scores to for free
 - After that, you have to pay a fee (\$27 each) to send your scores
 - If you don't send the scores on the day of your test, you forfeit the 4 free score sends
 - Scores are valid and sendable up to 5 years after your test date

Details of the GRE

Section	Score Scale
Verbal Reasoning	130–170, in 1-point increments
Quantitative Reasoning	130–170, in 1-point increments
Analytical Writing	0–6, in half-point increments

The GRE and COVID-19

- Because of the pandemic, many schools are dropping or suspending their GRE requirements
- Some schools make it optional - should you take it if it's optional?
 - Depends on your situation
 - If you have not-so-great grades or a lack of research experience, it may help your application if you get good GRE scores

When should I take it? How much does it cost?

- Since applications are typically due in January/February, you probably want to take the GRE in the summer or early Fall of your senior year
 - Unless you're taking a gap year(s), then you have more time
 - Allow time for the scores to come back (10-15 days)
- It's expensive (\$205) plus \$27 per for each score report you want to send to the school after taking the test
 - They do offer fee waivers but you have to apply

How should I study?

- Personally I studied using a GRE study book I bought for like \$30 online
- There are courses to prep you out there but they're probably expensive
- I recommend just using a study book and online resources
- Start studying early so you're not cramming!

Resources for GRE

- <https://www.ets.org/gre/>
- https://www.ets.org/s/gre/pdf/gre_fee_reduction_request_form.pdf

Previous Contact with Potential Advisor!

- Many advisors will **not** admit students they haven't been in contact with before receiving their applications
- Email them explaining you're interested in working with them for grad school and ask if they're currently taking students
 - Include your CV or resume and unofficial transcripts in the email
 - Maybe reference a specific part of their research that interests you, to show you've done your research
 - If you want, ask for a short zoom meeting to discuss their research and graduate program
 - If you don't hear back in ~2 weeks, try emailing again

Previous Contact with Potential Advisor!

- Do this early - months before due dates of applications
- This way you will know which professors will have funding for you, which can impact where you actually put in applications
- It's fine to contact more than 1 professor in a department if you want to
- If a professor doesn't have funding, maybe ask them for recommendations of professors who do similar research

What is external funding? Who provides it?

- External funding is when an organization outside of your graduate university pays for your tuition, stipend, or both
- Many of these programs, especially the national ones, are very competitive and only for PhD programs (not Masters)
- Examples of organizations offering external awards for graduate studies:
 - NSF Graduate Fellowship Research Program (GRFP)
 - Department of Energy Office of Science Graduate Fellowship Program
 - Hertz Graduate Fellowship
 - AMS Graduate Fellowships

Why apply for external funding?

- Gives you more freedom in your research topic
 - Your funding not tied to a specific grant that your advisor has
- Can allow you to work with an advisor who otherwise doesn't have available funding
- Good practice for writing research proposals
- Some fund you to study overseas

When should I apply?

- Awards for funding PhD studies are usually due during senior year
 - Some awards allow you to apply during your first or second year of grad school
 - You can also apply during a gap year
- Most due between October and January

What application materials do I need?

- Will vary based on specific award
- In general, you need:
 - Research statement
 - CV/Resume
 - Personal statement
 - Letters of recommendation
 - Transcripts

Other Information

- Generally these applications require you to have a research idea already
- Many awards specifically for women and underrepresented minorities and for people studying certain areas
 - Award amounts vary, but most competitive are those that fund you for 4-5 years (like NSF GRFP)
- Use SBU's resources for these applications!
 - There are people at SBU who will help you edit your statements and give you feedback

Deciding Between Multiple Schools

- Good problem to have!
- This was discussed during the week 1 panel discussion, which I encourage you to go back and watch if you haven't already
 - Link: https://www.youtube.com/watch?v=MDY7_rXmZ-Q
- Best school for you depends on your individual situation!

What factors are important when deciding?

- Things I consider important when deciding between programs:
 - a. The potential advisor
 - b. Research you will be working on
 - c. Location of the school (and Cost of Living vs. stipend)
 - d. Classes you will take
 - e. Grad student community

Get the Insider Info.

- Visit the school in-person if you can!
- Make sure to talk to current grad students of your potential advisor
 - Talk to them privately when advisor isn't around
- If you can't go in-person, talk to the students over email
- Try to find list of courses you will take
 - May be listed online. If not, email director of program and they should be able to provide it
- When you make a decision, tell all the schools/advisors right away!
 - It may feel uncomfortable to tell an advisor you won't be coming, but it's okay they will understand!

Resources for External Funding and Deciding Between Schools

SBU External Scholarships Office:

<https://www.stonybrook.edu/commcms/fellowships/>

Fellowship Database: <https://apps.grad.illinois.edu/fellowship-finder/>

<https://www.gradschools.com/get-informed/admissions/how-choose-between-multiple-acceptances>

<https://blog.gradschoolmatch.com/choosing-a-graduate-program/>

Final Points

- Be proactive!!
- Act early (especially when asking for letters of recommendation)
- Contacting potential advisors for MS/PhD programs beforehand is a MUST
- Make a spreadsheet of programs you're applying to and what application materials they require
- Do undergraduate research if you can
(<https://www.stonybrook.edu/commcms/ureca/students/gettingstarted.php>)
- Attend scientific conferences as an undergraduate if you have the opportunity

More General Resources

<https://esajournals.onlinelibrary.wiley.com/doi/10.1002/bes2.1917>

<https://takeyoursuccess.com/grad-school-application-tips/>

Geosciences Education & Mentorship support:

<https://gems-program.org/>

NOAA Student Opportunities:

<https://www.noaa.gov/education/opportunities/students>

REUs: https://www.nsf.gov/crssprgm/reu/list_result.jsp?unitid=10020