

Applying for Graduate School

Society of Women Engineers

Friday, November 9, 2012

Why Attend Graduate School?



Master's vs. Ph.D.

Master's	Ph.D.
<ul style="list-style-type: none">■ Geared toward a career in industry in technical areas or management	<ul style="list-style-type: none">■ Geared toward a career in research, highly technical areas in industry, or consulting
<ul style="list-style-type: none">■ More \$\$ than earned by a Bachelor's	<ul style="list-style-type: none">■ Often more \$\$ than Master's or Bachelor's
<ul style="list-style-type: none">■ More competitive resume<ul style="list-style-type: none">■ Allows higher level entry■ Required for some positions	<ul style="list-style-type: none">■ Overall curiosity and desire to learn■ Required for some positions
<ul style="list-style-type: none">■ Interest in research but don't want to commit to Ph.D.	<ul style="list-style-type: none">■ More funding opportunities■ Love for the research

Is it Right for Me?

- Talk with professors
 - Most knowledgeable about research in your area
 - Source of reference letters
- Talk with current graduate students
 - Can tell you what grad student life is like
 - Offer “lessons learned”
- Research your interests and corresponding schools



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Ways to Get Involved Now

- Undergraduate research
 - With professors at your school
 - Summer research programs (REU, USRG)
 - Intel Program for Undergraduates
 - Science Undergraduate Laboratory Internships (SULI)
- Internships/Co-ops
- Maintain and develop good standing and relationships with faculty
- Go to career fairs! (even if you don't need a job right now)
- Seniors: consider taking graduate level courses



Applying: Initial Thoughts

- What kind of research do you want to do?
- What do you want to study?
- Is it important to you to have more than one...
 - Advisor option? (yes!)
 - Research field option?
- Do you want many options?
 - Big vs. small program



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Applying: Choosing Your Schools

- Start a search, talk with your professors about their research
- What professors/universities are top in that field?
- What other factors are important to you?
 - Location (proximity to family, significant other)
 - Funding (TA, RA, external vs. internal fellowships)
 - Climate
 - Private vs. State
 - Rural vs. Metropolitan
 - Graduate : Undergraduate Ratio
 - Male : Female Ratio
 - Percentage International Students
 - How the program is organized (classes, qualifying exams, etc.)
- Visit the schools / cities to get a feeling for living/working there.



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Hint: If you really want to go somewhere, make sure they know!

Admission Statistics

Disclaimer – these will be different for each school and engineering discipline!!

- Mechanical Engineering, University of Texas at Austin, 2012

- Total Applications:

- ~25% admitted

- Mean (old) GRE Scores

- Quantitative: 783
- Verbal: 599
- Writing: 3.87

- Mean (new) GRE Scores

- Quantitative: 163.3 (~780)
- Verbal: 157.6 (~560-570)
- Writing: 4.26

- Mean GPA: 3.81/4.0

- You can find these on the school/department website or in the US News & World Reports Annual Rankings



Applying: Important Elements

GRE

Transcript

Essays

- Personal statement: start ASAP!

Letters of Recommendation

- Who will you ask?
- Talk with them about your interests, career ideas, what you want to shine in your application

Fee

- Usually ranges \$60-100 per application
- Can be waived if show financial need

Hint: have a list of schools, application parts for each school, and deadlines by Fall Break

Application Hints

- Personal Statement / Statement of Purpose
 - Why do you want to go to graduate school?
 - What will you do with a graduate degree?
 - Who/what inspires you to be where you are today?
 - Some schools have specific prompts
- Recommendations
 - Include resume/CV, personal statement, transcripts
 - Give detailed list of universities' application dates/letter submission process
 - Choose good mixture: professors, managers, advisors
 - Expect some weirdness
 - Consider how well they know you
 - Be mindful of reputation of professor, in the school and in the research community (i.e. tenured vs. not-tenured, known in industry, etc.)

Interviews / Campus Visits

- Typically in March and April
 - You may be accepted already (invitation to visit included with acceptance letter)
 - Interview may be part of application process
 - Meet multiple professors in interview settings
 - Meet graduate students
 - School may reimburse you for travel costs, but you will usually pay for travel up front – have cash reserves



Interviews / Campus Visits

- Pay attention to:
 - Happiness level of the current students
 - Campus
 - Compatibility between you and potential advisors
 - Overall location



Choosing an Advisor

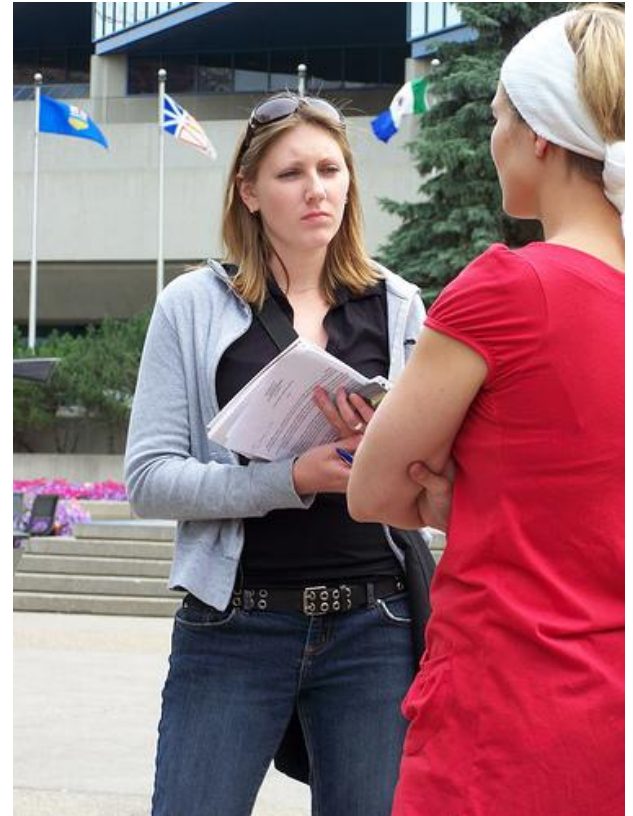
- Research Area
 - Must interest YOU! - have (or develop) a curiosity and passion for your specific area
- Tenured vs. New Professors
 - Time availability
 - Motivation (self-motivation vs. direction from advisor)
 - Hands-off vs. hands-on
- Scheduled vs. Laid back
- Communication Style
- Overall Personality



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Notes About Advisors

- Talk to their students
 - Get the real deal on the advisor
 - How do they treat their students?
 - They will be your co-workers
 - Get a feel for the university and the particular lab
- It's okay to switch
 - Sooner is better than later
- Communication is key
- Trust your intuition during interviews



I've Got Lots of Time, Right? – The Timeline (1)

Time from application deadline	Task
-9 months (Mar 2012)	Start thinking seriously about graduate school; Talk to professors, grad students, etc.
	Apply for undergraduate research programs
	Register for and start studying for GRE/LSAT/MCAT
-3 or 4 months (Aug/Sept 2012)	Determine to which schools you will apply. Gather list of information and fees for each application HINT: Make a spreadsheet!
	Take GRE/LSAT/MCAT
	Start asking for letters of recommendation
	Look at and apply to fellowship programs
	Begin brainstorming and writing statement of purpose HINT: Talk to professors/graduate students for advice, what to include, etc.

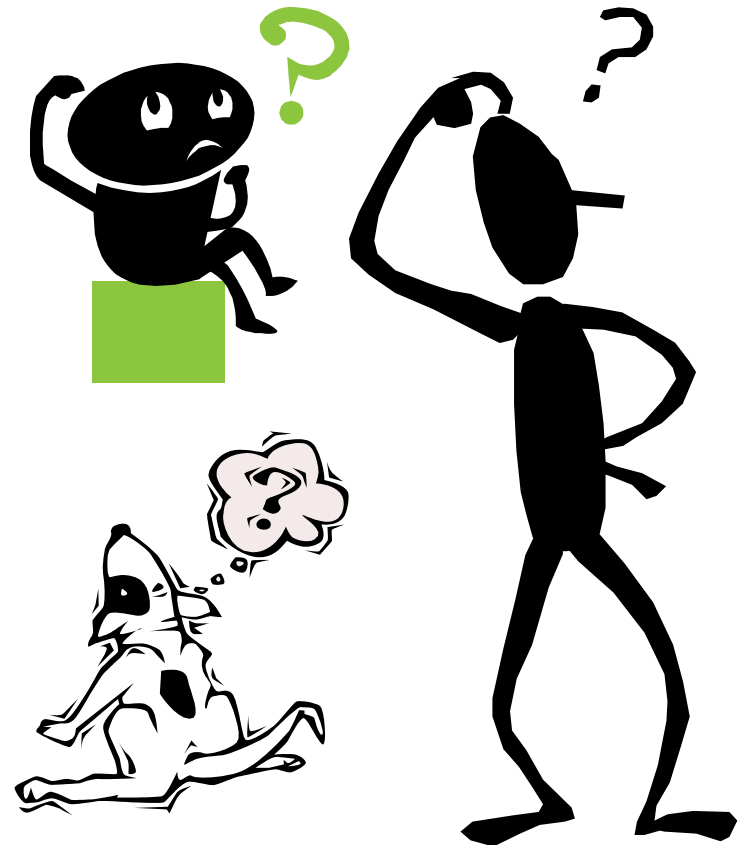
I've Got Lots of Time, Right?

The Timeline (2)

Time from application deadline	Task
-2 months (Oct 2012)	Start applications (they take awhile) HINT: Use the spreadsheet!
-1 month (Nov 2012)	Finalize statement of purpose/personal statement
	Remind recommenders of deadlines
	SUBMIT APPLICATIONS!!
+3 months (Mar 2013)	Start hearing back from schools and visiting
+4 months (Apr 2013)	DECIDE

Questions...Ask Your Guides!

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- Sofie Leon
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 - B.S. from Trine (Tri-State) University
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Please Feel Free to Contact Us!

Grad School Related Sessions at WE12



Thursday Sessions

- Graduate School Community Meeting and Networking, 10am, 350F
- Tips for Mentoring and Teaching Undergraduates, 1:30pm, 342F
- Career Options for Engineering PhDs, 1:30pm, 362AB
- Navigating Academia and Motherhood, 2:45pm, 342F
- Ethical Dilemmas in Research and Graduate School, 4:00pm, 342F

Friday Sessions

- Graduate Student Involvement in SWE Sections, 10am, 361DE
- The Postdoc: Why and How, 10am, 352D
- Graduate Research Rapid Fire – Energy, Sustainability, Resource Mgmt, 1:30pm, 361F
- Applying for Graduate School, 1:30pm, 361C

Friday Sessions (cont)

- Strategies for Effective Grant Writing, 2:45pm, 342C
- Global Opportunities for Grads and Postdocs, 2:45pm, 361AB

Saturday Sessions

- Funding your Graduate Education, 10am, 361AB
- Entering Industry with a Graduate Degree, 10am, 351DE
- Adjunct Faculty Positions: a Second Job, an Alternate Career Path, or a Transition, 1:30pm, 361AB
- Graduate Research Rapid Fire – Bio, Eng Tech, Education, 1:30pm, 342DE
- Emerging Career Pathways for PhDs, 2:45pm, 342AB

Get Involved & Stay Connected!

- Facebook: search "swegrad"
- Blog: swegrad.wordpress.com



Application Parts and Process

- What is the application process like?
- How do you decide between a Master's or PhD?
- How early do you have to start applying?
- How many schools did you apply to?
 - How did you choose them?
- What is most important in the admissions process?
 - GPA, GRE scores, research experience?
- What if you are applying to a different program than your undergraduate degree?

Choosing a Graduate School

- How did you choose your graduate school?
 - What other options did you have, and why did you discount them?
- How does your graduate program compare with other schools?
 - Rankings? Coursework? Teaching?
- How did you find a research advisor?
- What should I look for in a financial package?

After Graduate School...

- What are your plans after graduation?
- How will your graduate degree benefit you in the future?