Graduate School Application Process

Before you start…

• MS or PhD?
  MS if seeking additional intellectual depth but planning on industrial career, PhD if planning on industrial research or subject expert or academic positions

• SUGS (Sequential UG Graduate studies)?
  Take masters level courses as an undergraduate, complete masters in two terms instead of three. If you plan on PhD apply directly into a PhD program instead.

• What area?
  ChE keeps your options open, but courses focus on fundamentals. Could also redefine yourself through a graduate program,, e.g. IOE, Environmental, BME, MSE, chemistry, macromolecular…
Research experience
(if applying for PhD)

• Contact faculty directly
  For academic credit, or pay, or as a volunteer

• UROP – UG Research Opportunity Prog.
  http://www.lsa.umich.edu/urop/

• NSF Research Experiences for UGs
  http://www.nsf.gov/crssprgm/reu/reu_search.jsp

• Summer Research Opportunity Program
  www.cic.net/students/srop/introduction

• SURE – Summer UG Research Experiences
  sure.engin.umich.edu/
Summer

Take the GRE (www.ets.org/gre)

Computer based, can take once every 21 days and up to 5 times in a 12 month period. Take the time to study for this…

Verbal reasoning
- “measures your ability to analyze and evaluate written material and synthesize information obtained from it, analyze relationships among component parts of sentences and recognize relationships among words and concepts”

Quantitative reasoning
- “measures problem-solving ability, focusing on basic concepts of arithmetic, algebra, geometry and data analysis”

(A typical mistake is thinking you don’t have to review for this one, then doing poorly on it…)

Analytical writing:
- “measures critical thinking and analytical writing skills, specifically your ability to articulate and support complex ideas clearly and effectively”
September

- **List of schools**
  contact UM faculty in areas of interest
  www.phds.org/graduate-school/
  http://www.che.ufl.edu/cee/
  “CEE Grad Guide” App
  US News and World Report rankings

- **Obtain application materials**
  Graduate schools
  Fellowships
  grad.engin.umich.edu/funding

- **Research areas of interest**
  Web search, faculty
  Search NSF, NIH, DOD web page for grants

- **Contact recommenders**
  Must include faculty currently doing research with
  Not graduate students

- **Keep info for each school organized**
  Deadlines, GRE codes, profs to work with….
October

- Grad school applications
  Order transcripts www.ro.umich.edu/transcript
  Write statement of purpose – next page
  Ask faculty for recommendation letters
  Don’t use UM’s reference letter service,
  schools will send emails to your referees
  Inquire about prospective student visits

- Fellowship applications
  NSF
    www.fastlane.nsf.gov/grfp
  Hertz
    www.hertzfoundation.org/
  National Defense Science & Engineering
    http://ndseg.asee.org/
  GEM Minority – Apply for Masters one firs
    www.gemfellowship.org
  National Physical Science Consortium
    www.npsc.org
  Don’t forget grad.engin.umich.edu/funding
Statement of purpose

• Masters or PhD?
• Your long term goal in going to grad school
• No long biographies, save for personal statement
• Enthusiastic, easy to read
• Why specifically you want to go to that school: Identify interests, faculty you’d like to work with, show you’ve researched the school.
• Research experience highlights, be specific
• Internship highlights, be specific
• Show you’re well rounded, volunteering, groups, etc. (work it in, don’t dwell on it…)
• Double check that you answered all required questions
• Double check their requirements re. page/word max
• Edit for content, spelling, grammar
• Have someone (advisor, UM Career Center) review it
Personal statement

• Personal story
• Reasons you are interested in pursuing this path, how you learned about it, what steps have you taken so far toward your goals
• How the degree helps you achieve your goals.
• What they need to know to better understand your situation.
• Share your passion for your field.
• Chance to explain reasons for a bad semester
• Don’t write something every applicant could write – how are you different from the other applicants?
Recommendations

- At least 2 from faculty
  GSI could provide quotes for faculty…
- Set up appointment to discuss
- Request confidential letter, has greater believability
- Don’t use Career Center letter file, faculty have to enter recs themselves
- Provide recommenders with electronic versions of:
  - Resume
  - Unofficial transcript (except advisor)
  - Statement of purpose
  - Personal statement
  - List of schools and deadlines
November/December

• Finish applications
  About 6 schools is typical, more is fine
  Get organized, takes longer than you think
  Send in transcripts, GRE scores, others
  Have someone review your essays
  Check email, Facebook, LinkedIn, cell phone
    outgoing messages to ensure they’re professional
  If strongly considering PhD, apply for PhD
  Confirm everything got there

• Checklist to compare schools
  Key research areas, professors
  Funding possibilities
  Size of school, classes
  Location
  Teaching opportunities
  Health insurance
  Happiness of graduate students
Winter term

• Send updated transcripts
  Particularly if improved Fall term

• Visit schools you’ve been accepted to
  See next page

• Final decision date
  April 15\textsuperscript{th}
  Let definite no’s know early
  Some schools will have bonuses for early decision.
  Don’t decide based on bonus, go for the best fit.

• Let recommenders know where you end up…
Campus visit

• Visiting week-ends - schools pay
  Get ahead with schoolwork…
  Free up week-ends for your top schools ASAP

• Questions for graduate advisor
  What percent of students pass qualifying exam?
  Teaching requirements/opportunities?
  What’s a typical time to graduation?
  What would you change about the program?

• Questions for faculty
  What’s the structure of your research group?
  What type of student succeeds in your lab?
  How often do you meet with your students?

• Questions for students
  What’s the campus / city / department like?
  How is your research group organized?
  How often to you meet with your advisor?
  What do graduate students do for fun?
  What’s your advisor like on a bad day?