



The Road to Chemical Engineering Graduate School

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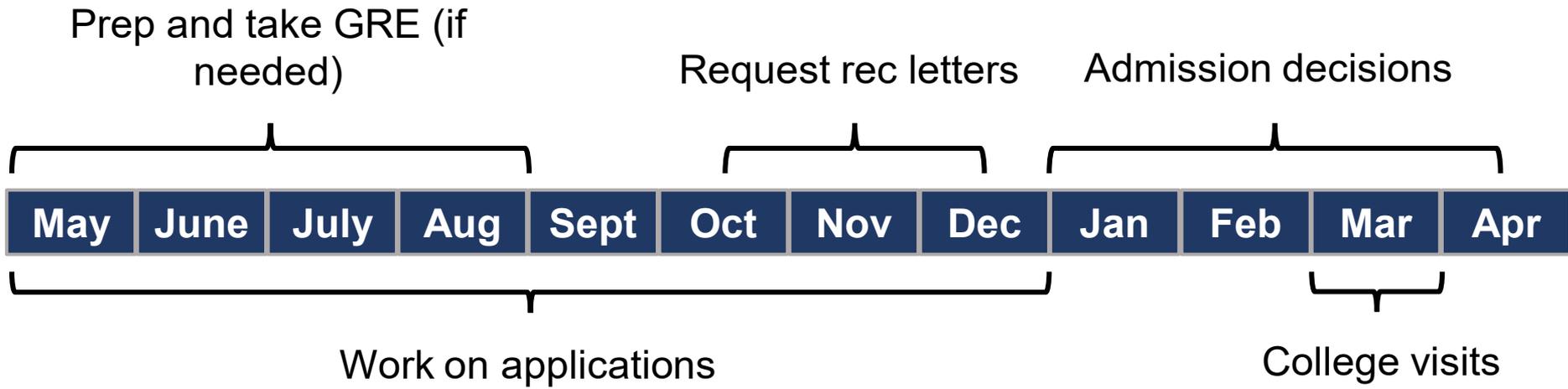
Molecular Engineering & Sciences Institute

*UW AIChE Hosted Grad School Info Session
Updated 3/15/2020*



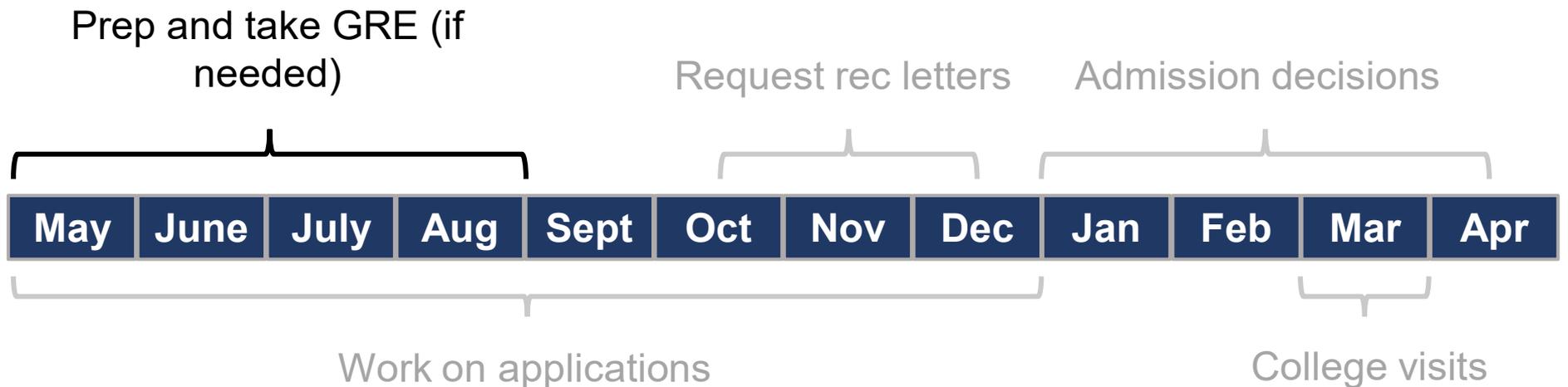
Application Timeline Overview

- Applications are due from December 1st to February, most in early January
- Check admissions requirements – is the GRE still required for your intended program?
- Start your applications ASAP!
- Ask for rec letters a month in advance of deadlines



Taking the GRE

- **Many programs are no longer requiring the GRE** – UW Chemical Engineering removed the GRE from admissions requirements in 2019.
- If you do need to take the GRE because it is required for your application, here are a few tips
 - Take it by the summer before applying to grad school
 - You can take it more than once
 - \$205 to take, Fee Reduction Program for financial need
 - Free to send to 4 schools, \$27 each additional



Personal Statement

- Start your applications ASAP because personal statements aren't easy!
 - Important to think *outside* the box
 - Avoid overly cliché motivations
 - “Ever since I could breathe, I have loved math and science”
 - Keep it concise, aim for ~1 page
 - Get as many eyes on your personal statement for feedback as possible to get different perspectives
- Tailor a paragraph to specifically match school's resources and faculty



"I want to show my colleges I'm well-rounded, so I wrote a poem in Spanish about how chess club has made me a better quarterback."

Personal statement

I encourage students to hit upon 2 key things:

(1) why is grad school an important part of your career path? You don't need to start with "When I was 5 years old, I saw..." but you do want to motivate why a PhD is a part of your trajectory;

(2) why do you want to do a PhD at UW and more specifically why UW ChemE? This gives you a chance to highlight your understanding of the university and department (i.e. faculty you want to work for - you should identify at least 3 anywhere you are considering applying).

A Note on Rec Letters

- Ask for recommendation letters **AT LEAST** one month before the due date
 - Professors are **BUSY!!!**

Factors to consider

- Who will write strong letters for you?
- Do your letter writers know why you are going to grad school? (share your statement of purpose)
- Can they highlight your abilities to succeed? (i.e. conduct independent research, mentor, etc)
- Consider self-writing your letter as a template



GRE (if needed)

Request rec letters

Admission decisions

May June July Aug Sept Oct Nov Dec Jan Feb Mar Apr

Work on applications

College visits

Fellowship Applications

Consider applying for one or several fellowships to increase your pay and flexibility in selecting a principal investigator and project!

- NSF GRFP (NSF Graduate Research Fellowship Program)
 - Deadline: around October 24th
- Hertz Fellowship
 - Deadline: Fall
- NDSEG (National Defense Science and Engineering Graduate Fellowship)
 - Deadline: early December
- NSTRF (NASA Space Technology Research Fellowship)
 - Deadline: around November 3rd (2016)
- Ford Fellowship
 - Deadline: December 13th (2018)

Consider beyond Chemical Engineering

We all know chemical engineering is the **best** major, but you might want to consider other related or tangential fields

- Bioengineering
- Materials Science
- Molecular Engineering and Sciences
- Nanoengineering
- Environmental or Bioresource engineering

Questions to consider when applying to non ChemE programs:

- Can you be clear on why this program is the best fit for you?
- If you are lacking some of the core coursework foundational to the field, can you identify ways to cover the material?
- What are your transferable skills from one field to the next?

Which schools should you apply to?

- Apply to a lot of schools (>5) - choose one or two “safety” schools
- **Focus** on your research interests
 - You can have perfect grades but you might get rejected if you are asking to do research in an area that doesn't exist in the department
 - Your past research does not need to influence or relate to your future research
- *Consider* the ranking of the department, but remember that rankings are based on votes made by department chairs
 - US News & World Report is the most common place to find the ranking list
- Think geographically - there are good ChemE schools all over the country
 - Why not take the chance to live somewhere new?
- The 1st round of admissions will typically be offered the opportunity to visit, typically in February and March (for free!) for 1-2 days for a recruiting (indoctrination) trip. Go on several trips if possible!

To note:

- College applications range from \$0 to \$75-\$100 per school

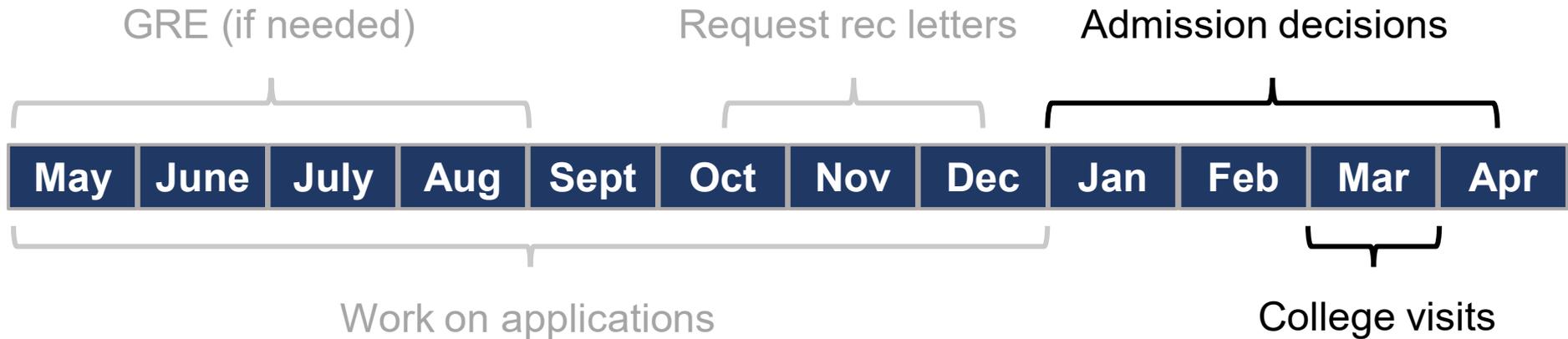
How to choose which school?

What to look for and potential questions to ask on the recruiting trip (*not a comprehensive list, not in any order of presumed priority, and other factors not captured here might matter to you!):

- What is the life like of the graduate students? Where do they live and how much rent do they pay? Are they happy? What do they do outside of lab? Ask away!
- How does the stipend compare to the cost of living?
- What does the health insurance cover?
- Can you identify at least 3 professors that you would be happy working with?
- Can you live there for ~5 years?
- What qualifying/prelim exams are required?
- What is the teaching duty like (e.g. TA requirements)?
- What is the average time to graduation?
- What is the department culture? Are graduate students and their voices valued?
- What resources and support are available to students? For mental health? For mentoring? For research? For diversity, equity, inclusion? For funding?
- What's the publication rate for students in different labs?

And then you wait...

- Deadline to accept admission: April 15
- Most decisions come back February and March
 - Decisions MAY come back anywhere from a few days after submission to early April



FAQ: Should you contact professors before you've been admitted? No. Until you are accepted into a program, there's not much we can comment on or commit to.

Questions about the UW Chemical Engineering Doctoral Degree Programs?

PhD Program Coordinator: Prof. Cole Deforest,
profcole@uw.edu

Graduate Program Advisor: Allison Sherrill, sherra@uw.edu

MS ChemE Program and MS Data Science in ChemE Program
Coordinator: David Beck, dacb@uw.edu