ABSTRACT
Through a simple step-by-step guide for navigating the graduate school application process, a graduate student who’s been through the ringer and a faculty advisor who knows the ropes offer advice to walk prospective grad students through the process of successfully entering graduate school.

WARM UP
Summer: Start Stretching!
• Go to Google and search “National Science Foundation Graduate Research Fellowships” (NSF GRF). Call or e-mail the fellowship advising office on your campus and talk to them about this prestigious funding opportunity for grad school-bound researchers in science and engineering.
• Apply for the NSF GRF. The essays take a long time to perfect, so start working on them now.
• Google “Hertz Fellowship” and “National Defense Science and Engineering Graduate Fellowship” (NDSEG) and take a look at them as well. Applying for many different fellowships makes completing grad school applications easy, as you’ll have much of the essay material already written. It also gives you a good chance to focus and really think about the application process and your future research.
• Register for a GRE testing session about one month from now. Just go ahead and set a date that currently works, and then work the rest of your schedule around preparing for it. Try to get one test in before October, so that you can retake it in October if you don’t do as well as you’d like. You can only register for one test session per month.
• If you pass on all other preparation for the GRE, complete the full practice test in the free POWERPREP II® software available from ETS (www.ets.org). Pretend that you are in a real test situation, complete with timing of sections and breaks. Doing practice tests in the computer environment is much more effective than doing pen-and-paper practice tests. The actual test is also long and quite fatiguing, so getting exposed to the physical stress of the real test environment is valuable.

Late October / Early November: Scouting
• Start visiting departmental websites and make a list of eight or so schools that you are considering by the beginning of October. Leave this list flexible until the end of November.
• Go to the AIChE National Student Conference. If you have completed undergraduate research, prepare a research poster and present it at the poster session (the

Garrett R. Swindlehurst is a Ph.D. Candidate in chemical engineering at the University of Minnesota – Twin Cities. He received his B.S. in chemical engineering from North Carolina State University in 2009. His current research interests lie in the intersection of inorganic colloids science and microfluidics, with applications in immunology and emphasis on optical characterization techniques. He also is interested in mentoring and works with the University of Minnesota CEMS department to coordinate prospective student visitation weekends.

Lisa G. Bullard is a teaching professor and director of Undergraduate Studies in the Department of Chemical and Biomolecular Engineering at North Carolina State University. She received her B.S. in chemical engineering from NC State and her Ph.D. in chemical engineering from Carnegie Mellon University. She served in engineering and management positions within Eastman Chemical Co. from 1991-2000. Her research interests lie in the area of educational scholarship, including teaching and advising effectiveness, academic integrity, process design instruction, and the integration of writing, speaking, and computing within the curriculum.
Graduate Education

application deadline is typically in early September). When not at your poster, go to the graduate recruitment fair and speak to professors from other departments. They are at the conference to find the best students for their graduate program, and if you’re there, you can get “in” with the admissions or recruitment chair with a good one-on-one conversation. Receiving “offers” on the spot has been known to happen with a good first impression. Plus, your professors can introduce you to their colleagues who may serve on admissions committees—potentially garnering you another “in” with a program in which you’re interested.

• NOTE: When applying to “graduate school,” you usually have to simultaneously apply to both the department of interest and the university’s Graduate School, the college that manages graduate education. This can be easy (there is a common online system for applying to many Graduate Schools) or difficult (vastly different essays required by the Graduate School and department). When selecting your programs of interest, take a quick survey to see into what category the application will fall—this can help you manage your time in the long run.

• Finish your NSF application before working on any grad school applications. More often than not, your statement of intent to the program of your choice will be adapted from some combination of your NSF essays.

Late November: Start Your Engines

• Be on the lookout for e-mails from programs offering to waive the application fee for their program. You may be able to apply to these departments with minimal extra effort, and in doing so, perhaps you’ll discover something you didn’t see in them before.

• Choose four to eight schools to apply to and then talk to your academic mentor of choice about your selections. He or she can offer you feedback about the quality of the program and its faculty.

• Finalize the list of schools to which you’re going to apply.

• Bounce your thoughts and application choices off your professors who are alumni of those departments. They also will have good feedback about the strengths and weaknesses of where they did their Ph.D. work.

• Use an Excel spreadsheet to monitor your progress. Keep track of the application parts you have to submit, how/where/when to submit them, and money you have paid for applications. Ultimately, having this checklist of goals and progress will help you keep moving towards your personal submission deadline.

• Finish your Personal Statement and have as many people as possible give you feedback—professors and peers alike.

• Make a count of how many official transcripts you need. Order them all at once, early, and keep track of them. Make sure you order them before fall semester grades come in, unless you know you will be submitting applications after the New Year and that your fall grades will only raise your GPA.

WORKOUT 1:
Early / Mid-December: The Pre-Break Hustle

• Complete the applications “horizontally,” not “vertically.” Many of the applications are on similar hosting websites, or at least have the same components, and will let you save your progress. Doing each piece for all applications simultaneously is easier and will save time.

• Finish all digital components in “soft” format first, i.e., not submitted yet. Then, in one big day, submit all the applications at one time, once you know that they are fully complete (this is where the Excel worksheet is useful). Not only does it feel great to get them all in together, but you will make sure that you don’t lose track of anything.

• The same applies for items required in paper form, including official transcripts.

• Now you’re over the major hurdle. Take the rest of the year off (aside from finishing fall classes!) and look forward to hearing back from some schools over break.

WORKOUT 2:
Late January / Early February: Let the Games Begin

• By now, you have some acceptances rolling in. Rejoice with each one, for it is a fantastic potential future for you! Beers or other celebratory measures are optional but recommended.

• Begin making a calendar of all the potential visit weekends for programs that accepted you. It’s time to begin piecing together your schedule puzzle for Touring Season. Note any potential conflicts in scheduling among your top choices.

• For each of your top three to four programs, make it an utmost priority to respond that you will attend one of their scheduled visitation weekends. These organized weekends are much more fun and well-planned than private visits, and the professors have more time to meet with you.

• For programs high on your priorities list with only one visitation weekend, go ahead and book it. You have to make the best decision with the information that you have available at the time.

• Hopefully, you will hear back from all of your programs by the end of February. By then, you might also have taken a visitation weekend already, which brings us to our next point...
Late February / Early March: The Good Times Roll

- Visitation weekends are awesome—go on them all, if you can. You are treated like a rock star, get to see the department, and travel on a student budget (aka, free!). What’s not to like? Granted...

- ...some people get weary of traveling. If you do, visit only the schools you are really serious about. This is something you just have to gauge for yourself—there are only so many weekends from mid-February to mid-April. Four visits are about average, while some people can manage doing seven. Establish a touring schedule that works for you.

- Make lots of friends on these visits. Meet everyone, and ask them about their visits and impressions. Talking about it will help you make a decision in the end, and maybe get you a future roommate.

- Finish all coursework before you leave for a trip. You won’t have time or energy to work on anything on the trip, despite your best intentions.

- Take lots of notes. It’s tedious at the time, and you won’t think there’s any way you could forget that professor or project, but you will. Spending the flight back from each weekend noting down your impressions is a good idea. Those notes are tools to prompt phone calls to professors or students later, and they will ultimately help you make a decision.

Graduate Education

TAPERING:

Early April: Decision Time

- Choosing a graduate program is the chemical engineering career equivalent of accepting a marriage proposal. Analogously, it may be the most important decision you have ever had to make. There are many factors to weigh, but in the end, it’s your decision alone. Here are a few tips:

- Talk to someone about it. In fact, talk to everyone about it. If you have a sympathetic friend, complaining about how hard the decision is may even help ease the stress. Either way, just actively thinking about the decision in this way will help you approach your best-reasoned choice—or otherwise, the gut feeling that you’ve always been moving towards anyway.

- Make your decision in early April if possible. Your first choice school will be grateful, and your other candidate schools will appreciate knowing of your decision not to attend so they can roll your offer over to another applicant prior to April 15.

- Once you’ve made a decision, don’t second guess yourself. Finish strong, enjoy your graduation festivities, and look forward to the grad school race ahead. But remember, it’s a marathon, not a sprint! ☐