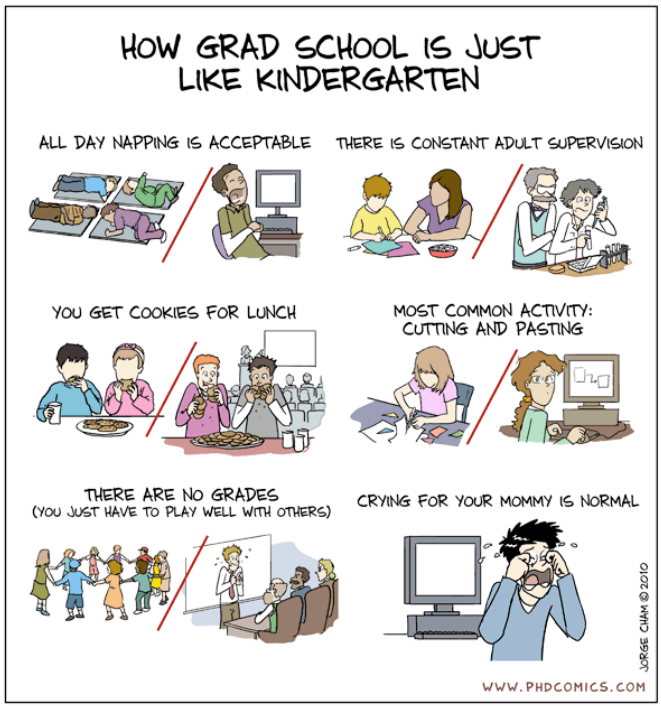
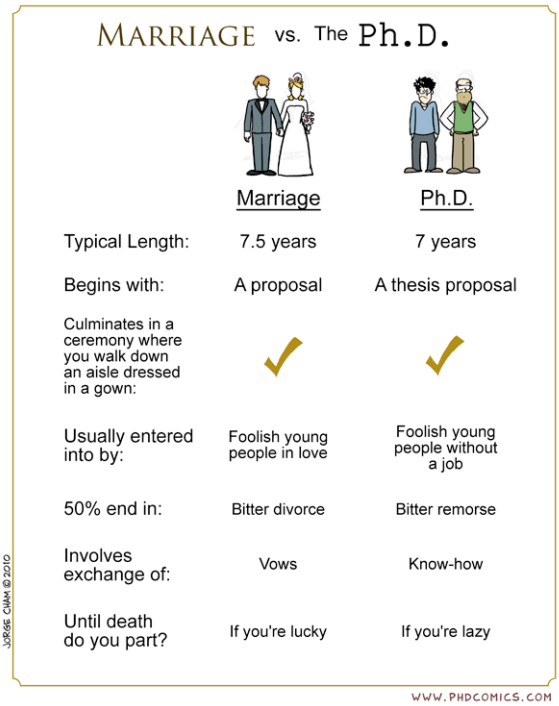
Answers to FAQs and Tips

Produced by: NU Chemistry Grad Students





In this packet, a few grad students have put together questions, answers and tips to help you through your first year and beyond! Some questions have a list of answers. These aren't necessarily combined to give you the ultimate answer per question, but rather to give you a list of answers from different grad students. Although this is by no means comprehensive, we hope this helps!

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Random Terms That You Might Hear

TGS = The Graduate School

TA = Teaching Assistant

IMSERC = Integrated Molecular Structure Education and Research Center (Essentially, the place core facility with Mass Specs, NMRs, etc)

OSR = Office of Sponsored Research

ORS = Office of Research Safety

PLU = Phi Lambda Upsilon – Grad Chemistry Honor Society

PI = Principal Investigator (a.k.a. Research Advisor or Boss)

FAQs: Chemistry-Specific Grad Life

How and when do I choose a research advisor and begin research?

You will be speaking with professors throughout your first quarter. In this time, your goal should be not only to get to know the professors but also the grad students and the lab dynamics. You are required to speak to at least 4 professors and have them sign a sheet indicating you have done so. It is in your best interest to meet with other profs EVEN IF you think you know who you want to work for…you never know what will happen!

Around mid-November, all the first years have to submit their top four choices. The professors all have a meeting in which students are "matched" with research advisors based on the interest of both the student and the advisor. This matching process will go on (potentially even beyond the meeting) until every first year is placed. Once the students are matched with research advisors, your new research advisor(s) will notify you and you are in their hands! You can begin research as soon as they let you!

Starting in the summer is one option if you would like to try out a lab. Contact the professor as soon as you accept the NU offer and see what his/her policy is. There is no obligation to then join this lab if it doesn't feel like a good fit. Otherwise, start talking to students and professors and attending group meetings as soon as possible once on campus.

FAQs: Chemistry-Specific Grad Life

What are my TA responsibilities? What are the different TA options?

Every student has to fulfill the equivalent of 4 quarters of teaching, but this could look different for each individual.

Most Common Options:

- Gen Chem lab TA with Shelby Hatch: grading, running your lab section
- Organic Chem lab with Owen Priest: grading, running your lab section

(Both of these can be either Fall-Summer of Year 1 –or- Fall-Spring of Year 1 + 1 quarter of Year 2)

Other Options:

- Super TA (usually for Gen Chem)
- Advanced Lab Course with Fred Northrup (Chem 350/Chem 220): TA an advanced course for only 1 quarter and teach Gen Chem for 3 other quarters to complete a full TA assignment; compressed into 1 long experiment or 2 short experiments for Chem 220 for about 3 weeks for 4 afternoons per week. One quarter requireiment is fulfilled by shadow TAing in year 1 then serving as primary TA in year 2
- IMSERC TA: the course teaching responsibility is the same as the Advanced Lab Course TA but instead of the other 3 quarters being Gen Chem TA responsibilities, you complete your "4-quarter" TA assignment by working in IMSERC the entire year to train and perform other duties for the NMR or mass spectrometers. This full-year assignment completes your teaching assignment at NU.

FAQs: Chemistry-Specific Grad Life

Can I receive funding to go to conferences?

- Presently (Summer 2012), TGS offers up to $500 in conference travel grants (CTG). Each student is allowed to receive a CTG twice in their entire grad career. In order to qualify to receive a CTG, you must have another promised source of funding for travel (either PI support or another travel grant).
- PLU (NU Chem Grad Honor Society) offers local travel grants ($250) and international travel grants ($550) but you have to be a PLU member with an appropriate number of service hours to apply for this.
- Talk to your PI- he or she will often fund you to attend at least one conference.
- Some training grants or fellowships will include funds to be used for travel for research purposes.

Other funding sources are available – search far and wide when possible and make use of the Office of Sponsored Research to get more information on opportunities.

What career resources are available to me within the department and within the University? How far ahead should I think about it?

- As far ahead as you can--talk to older grad students (they may have some really good ideas of where to go next)
- Use the Resume Book – you can submit your resume to the chemistry department and this will go into a book that different companies can access
- Go to http://www.northwestern.edu/careers/ and register with CareerCat. This is the Northwestern University Career Services.
- Go to career panels: several occur throughout the year through different departments (not just chemistry! Engineering in particular seem to have a good a number)
- Talk to Alumni! The chemistry department can get you alumni contact info.

FAQs: Chemistry-Specific Grad Life

Who should I talk to about joining a research group?

Graduate Students (As many as you can find. Remember, not everyone will get along with their advisor, but that doesn't mean you won't. The reverse is also true.) And definitely the professor! You need to let him/her know that you are interested in the group. Ask how many students he/she is planning to take.

How many classes do I have to take? Can I take additional classes? Which classes would be most useful for what I'm interested in?

There are 9 classes which you must take, and 3 of those classes you can pass out of if you pass the placement exams. The other 6 classes depend on which track you choose. Talk to grad students in the groups you're interested in about which classes to take.

Other notes:

- If you apply for a cluster program (e.g. ISEN, HMCP, BTP) at the end of the first year, you may have to take a few more classes or teach a few more quarters in your second year.
- If you have taken a class similar to one of your required class, you have the option to waive the class, but you must get the signed approval of the instructor.
- CHEM 435: There are usually more than one (3 in my year) classes that satisfy your Chem 435 requirement. You can choose any one of these students, but you have to take at least ONE of the Chem 435 classes. If you want to take another Chem 435 selection, you can probably take it as an elective.

FAQs: Chemistry-Specific Grad Life

What exactly is my qualifying exam (a.k.a. "qual")?

Your qual takes place at the end of your second year, usually in the spring. Sometime early to mid-March you place about 5 choices for your committee members with the help of your advisor, and with your choices taken to consideration, you are assigned three committee members. One of these members is your chair; the chair gets replaced by your advisor(s) after your qualifying exam.

You have to write a paper and give a presentation on the work that you have done so far and the research you plan to do in the future. The paper is limited to 1pg for title and abstract, 7 pg of text, and 5 pg of figures. You have to submit 2 copies, one with the figures and text separate to ensure that you have fulfilled the page requirements and one with the figures embedded for your committee to actually read. According to some professors, the presentation is only supposed to be 20 minutes long without interruptions (though the actual exam is usually around 1-2 hours due to the interruptions from your committee). Though there are some exceptions, you are expected to have completed your qual by the last day of spring quarter of your second year. Exceptions are sometimes made when committee members have scheduling issues or if there are other extenuating circumstances.

Immediately after your presentation, your committee will deliberate and inform you whether you have passed, passed with an addendum (in which case they will define your addendum), or failed the exam. The decision will take both paper and presentation into account.

TIP: In many cases, one of the most difficult parts of your qual is scheduling a time with your committee. Do this as soon as possible – professors are busy!

TIP: This is an important rite of passage but don't stress! Be sure to practice if you can in front of other seasoned grad students, like older fellow group members.

FAQs: General Grad Life

Does my stipend cover health insurance? What about dental insurance? Vision coverage?

As a student you have the option to enroll in NU's student health insurance, which includes a vision discount program, and there is a dental discount programwhich you can pay an additional amount to join. These discount programs are not true insurance; instead they offer 10-50% reduction in cost. NU health insurance requires that you first go to the student health center, and if needed they will refer you outside. Otherwise, the insurance won't cover your doctor visit. If you can stay on your parents plan you may be better for it.

How do I do my taxes?

The first year taxes will not be automatically withheld from your paycheck, so you will have to decide how much extra you would like withheld. It is best to talk to another graduate student who is in the same tax situation as you are (i.e. single, married, etc) and ask for their advice.

As a grad student, remember that you are both a student and an employee (either as a TA or a research assistant). Two forms you have to make sure you deal with are:

1. W-2 is your employee tax from
2. 1098-T is your student tax statement

Your best resource for question on finances is Ann Wheatley (a-wheatley@northwestern.edu). All your NU statements (to pay your student activity fee, etc.) is in your Caesar Student Center.

FAQs: General Grad Life

What is a U-Pass and how do I get one?

A U-Pass is the CTA pass that allows you unlimited rides on any CTA-operated public transportation (L, buses). This is essentially what your student activity fee pays for (which you pay once a quarter on Caesar—NOT covered by your stipend). For you first years who obtained WildCARDS by August 29, the following Fall 2012 U-Pass information is relevant to you:

Distribution begins: Thursday, September 6

Activation date: September 10 at 12:00 AM

You can pick up your U-Pass in the following locations at the following times:

- 8:30 a.m. - 4:30 p.m. Thursday, September 6, 2012, U-Passes will be distributed on the first floor just inside the Tech main entrance, between LR2 and LR3.
- 9 a.m. - 1 p.m., Friday, September 7 - October 19, Norris University Center, Cashier's Office. Office hours will be extended to 4:00pm beginning September 19th. The Cashier's Office is located on the first floor, at the far north end of a series of offices.
- 8:30-5 p.m., Monday, October 22 and thereafter, The Graduate School office on Clark

If you missed the August 29 WildCARD deadlines listed above, you will receive your U-Pass in a later distribution.

Other Notes:

- Don't lose your U-Pass. It is a pain and $50 to replace. To replace it you will have to go all the way downtown to the CTA office off the green line. Avoid this situation if you can help it!
- Pace bus and the Metra rides are NOT covered by your U-Pass.

FAQs: General Grad Life

Where should I live, Evanston or Chicago?

- Most students live in Evanston for the first year! Most first years will have to take an 8am course in the first quarter and being close to campus makes it much easier. Many students move to Chicago later in their grad school career.
- A piece of advice: if you do plan to live in Chicago, it is easiest if you live either near a purple express station (no farther north than Belmont), near an intercampus shuttle (by Loyola or by the downtown campus), or by the Howard red line stop. Sometimes living in between Howard and Belmont is actually more cumbersome if you take public transit because of the transfer between the red line and the purple line.
- Chicago has many more bars ☺. It depends on how often you want to venture into the city. If you plan to city-trek frequently, it is much easier to live in Chicago, especially since the purple line stops running somewhat early. However, remember you are in grad school and a lot of time will be spent in lab. It is much easier to come back and finish up a reaction or stop a column if you live close by.
- It depends: do you want to live closer to your day-life or your night-life?

Where can I get information of things to do outside of research? What kinds of things are available to me?

- TGS sends out e-mail newsletters about clubs and activities. Keep an eye out for them in your inbox.
- New Student Resource Fair (part of TGS orientation) has representation by tons of grad student groups. Definitely go to it and look for groups that interest you!
- Flyers on walls of Tech, Nano, etc for things like Book Clubs, Movie Screenings, etc.
- Examples of things you can participate in:
    - Intramural Sports: www.nuim.northwestern.edu
    - Improv Group
    - Graduate Women Across Northwestern (GWAN)

General Tips to Survive Your First Year

- Don't spend all your time on classes (if you're struggling with homework, go to office hours! a lot of times this is where you really figure out what's going on. Don't waste time being lost). This may be a difficult switch from undergrad but it is a good one.
- Make your search for a research group a priority
- This will be the time to make and solidify relationship within your class. Enjoy this time and get to know the people around you. They will be your support group for the next 5 years!
- Don't stress too much about research. If it works, wonderful! If it doesn't, learn from it and move forward. Remember, "Ever tried, ever failed. No matter. Try again, fail again, fail better!"
- Everyone, EVERYONE feels stupid a lot of the time in lab. Don't let it make you doubt yourself. At the same time, make sure what you're doing is reaching some sort of end goal. What kind of questions are you trying to answer?
- Separate failures in lab from failure in life! It's easy to get down on yourself when labwork isn't going so well. But keep your head up- Things will get better. Remember that grad school is hard for everyone- be proud of yourself for taking on the challenge!
- Start reading PhDComics when you get down. It sometimes helps you see that you are not alone. And as a bonus, it might actually make you laugh!

General Tips on Picking a Research Group and Advisor

- Talk to graduate students!!!!
- Remember, not only do you have to consider who you want to work for, but you have to be selected by that group/advisor; meet them, appeal to them, read their papers
- Be prepared with questions for both the prof and the grad students! Ask about average time to graduate, authorship requirements (how many papers to graduate?), conference policy, vacation policy, exposure to advisor (weekly meetings? monthly? hands on or off?), standardized or individualized expectations (is everyone held to the same standard? is it project based? what ARE the standards, anyway?), career assistance (does the advisor have industry connections? academic connections? Will they use them to help you find a job? push you into a certain area? write rec letters for you? What have former members gone on to do in their careers?). Most importantly, ask these questions of the advisor AND graduate student/postdoc members….You may be surprised if the answers are different, but think about what that means for you.
- Ask the grad students what their average day is like. Do they come in early? Leave late? Weekends? Does this match with your own style of working? If not, will it be a problem? The key here is to set your expectations to match those of your research group.
- Make meetings with professors a priority and be aggressive (but do your own research too!)
- Read papers from the groups you are interested in. Think about the type of research you want to do (applied, fundamental, theoretical, experimental, engineering heavy, etc.)
- Of course your advisor and his/her research are important, but make sure the atmosphere and attitude of the rest of the group is right for you as well. Many advisors are frequently busy with meetings and travel, so it's the grad students and post-docs in your group who you're going to be interacting with primarily. Make sure they're people you think you can get along and work well with for the next 5 years!
- Get as best of an idea as possible what project(s) you can or will be working on when you join the lab! You don't want to join a lab all for one project that your PI has no funding for or has too many people.

General Tips to Survive the Rest of Grad School

- Think about what you *might* want to do after graduating. If it's not academia, talk to other graduate students about what you want to get out of your career (the sooner the better.. once someone graduates, it's a source of information that leaves!).
- Look around for other opportunities for learning (seminars, classes in other departments, summer programs).
- Get a hobby. Have something you are passionate about outside of lab. This is really helpful when research is not going well and you need a way to de-stress.
- Remember that grad school is a marathon, not a sprint. Don't get burnt out the first year or two. It's okay to take days off once in a while and definitely take vacations! You will come back feeling refreshed.
- Apply for external funding! Your advisor will be happy for you if you obtain it!
- Get Verizon. AT&T has no service in tech.
- Learn how to write short emails – professors tend to only read the first line of the email you send them.
- REMEMBER, your goal is to graduate by producing a thesis. Don't get caught up in useless details and forget why you are here.
- Start networking as soon as possible, regardless of what you want to do. It will only help you!