



The 10-Point List

First Year Survival Guide:

All you need to know to survive your first year in chemistry graduate school.

Introduction

Herein lies students' explanation of the requirements in the chemistry program for the first year, along with some helpful tips to help you get around and establish yourself in the Evanston/Chicago area.

The 10 Points

1. What goes on during orientation?
2. What are my options for housing?
3. (a)How does public transportation work in the Evanston/Chicago area?
(b)And what if I have a car?
4. How does the money situation really work for graduate students at NU?
5. What are proficiency exams?
6. What classes should I take?
7. How do I choose an advisor?
8. Where will I work/put my stuff during the day before I choose an official advisor?
9. What will my teaching/tutoring responsibilities be?
10. Does anyone have advice to help me survive this first year?

Visit: <http://nulink.northwestern.edu> and <http://www.tgs.northwestern.edu/graduate-life/> for more information to survive Graduate Student Life!

1. What goes on during orientation?

- ◆ This will be the only three weeks of your graduate school tenure that you will be paid to do virtually nothing! During this time you will fill out tax forms, take proficiency exams, sit through TA and graduate school orientation, hear about professors' research projects, and participate in fire safety training. Pay attention to the information you are told.
- ◆ Have fun! Go down to Chicago on a free afternoon via the El! There are few afternoons that you will be able to do this again, seriously.

2. What are my options for housing?

- ◆ On-campus graduate housing is relatively expensive for the space and does not come highly recommended.
- ◆ Find an apartment in Evanston or neighboring area like Rogers Park or Skokie (15 minute driving distance from campus). Nice apartments can be pricey, so it may be optimal to have a roommate. Having roommates, even strangers, is a fantastic way to meet new people and can help in adjusting to your new surroundings!
- ◆ Other options accessible by public transportation are Wrigleyville or Lincoln Park which are further south. You may want to consider the commute before deciding to move far from campus – it's probably better to see what your class and TA schedule is like first!
- ◆ Once you get the email list, contact people in your class to share an apartment. It's cheaper than living alone.
- ◆ **NU Housing Office:**
 - email: grad-housing@northwestern.edu
 - www.northwestern.edu/gradhousing/
- ◆ **Off Campus Housing:**
 - <http://www.northwestern.edu/offcampus/>
- ◆ **Domu:** www.Domu.com
- ◆ **Chicago Tribune:** <http://www.chicagotribune.com>
- ◆ **Craig's List Chicago:** www.chicago.craigslist.org



3(a). How does public transportation work in the Evanston/Chicago area?

There are three main methods of public transportation. They are the Metra train, the CTA/"El" (short for elevated train), and the NU shuttle buses. Go to <http://www.northwestern.edu/userservices/transportation/> for more information on campus transportation and parking.

NU Shuttles

- ◆ There are shuttle buses offered to NU students, faculty, and staff (free with Northwestern Wildcard). These buses take you through campus, around Evanston, between the Chicago and Evanston campuses, and to nearby shopping areas. For a list of shuttles and schedules, see <http://www.northwestern.edu/userservices/transportation/shuttles/>.

CTA Buses and Trains

Go to <http://www.transitchicago.com/> for schedules. Also, a new feature on google maps lets you look for directions as you normally would for driving, and then click "take public transit" to get directions via public transportation!!

HELPFUL HINT: The CTA has a train tracker (<http://www.transitchicago.com/traintracker/>) and also has a bus tracker (<http://www.ctabustracker.com/bustime/home.jsp>). These are both helpful for letting you see when the next trains or buses are going to be at the stop you're interested in.

As part of your student fee, you get a **U-Pass**, which gives you unlimited transportation on CTA busses and trains. It is NOT accepted by Metra (suburban commuter rail) or Pace buses.

The “El”

- ◆ The two train lines that most NU students use are the Purple Line (runs through Evanston until 2am and to downtown Chicago during weekday rush hours via the Purple Line Express) and the Red Line (runs North/South through downtown at all times). When the Purple Express is not running, take the purple line to the end at Howard Street and transfer to the Red Line to go to downtown Chicago and vice versa.
- ◆ The stop closest to Tech is at Noyes Street. It is about a five minute walk east to Tech from the El stop.
- ◆ In general, the El is pretty safe and is a very effective means of transportation. However, you should keep in mind that this is an urban means of transportation, which means that you should always be cautious.

Buses:

- ◆ The routes for different bus lines are extensive, and too complicated to explain here. The #201 is the only bus that passes Tech.
- ◆ The buses are also a convenient way to access Old Orchard and Golf Mall (where Target is located) shopping areas if you don't have a car.

The Metra train:

- ◆ The Metra is essentially a commuter train for professionals going from the suburbs into the city. The Metra is very safe and usually runs on time. For more specific Metra information, visit the website at <http://www.metrarail.com/>. Metra is another convenient way to get downtown and is much faster, however, more expensive.
- ◆ You can find the Metra fares at: http://metrarail.com/metra/en/home/tickets/upn_fare_table.html
- ◆ The stop closest to campus is at Davis Street in downtown Evanston. It is about a 15 minute walk from the station to Tech or pick up the intercampus shuttle (<http://www.northwestern.edu/userservices/transportation/shuttles/>) which runs even when school is not in session.



3(b). What if I have my own car?

- ◆ A commuter (student) parking permit can be purchased at the Parking office at 1819 Hinman Ave., x1-3319. For fees during the school year, contact the parking office. You must be outside of the walking zone, provide a copy of your lease and show a wild card in order to get a parking permit. A Ryan Field (remote parking at the football stadium) pass can also be purchased for about \$25.00 per school year. During rush hours (6:45a.m. – 9:00a.m., 3:45p.m. – 6:45p.m.) a shuttle service is provided from the stadium parking lot to campus. During all other hours, students can use the intercampus shuttle to travel between Ryan Field and campus. Any questions regarding either shuttle service can be answered by calling Support Services at (312)-503-8129.
- ◆ Parking passes and permits can be purchased in advance from the Parking Office for the day. You can pay with check, or cash. These requests must be picked up in person from the Parking Office.
- ◆ Prices for parking anywhere else vary greatly. Residential areas are free, side-streets near downtown Evanston and the Evanston campus are free but with time-limits, downtown Evanston has metered parking (8a.m. – 9p.m., Monday - Saturday) as well as parking decks, and parking decks in downtown Chicago can be as much as \$16.00 for one hour (take the E!).
- ◆ Most campus lots are open to anybody after 4pm and on weekends, but watch for signs specific to the lot and space you are in.
- ◆ Beware of where and when you park until you are comfortable with the area. Both Evanston and Northwestern LOVE to hand out parking tickets!

Parking and Transportation: <http://www.northwestern.edu/userservices/transportation/>

4. How does the money situation really work for graduate students at NU?



- ◆ At this point, you have already received a letter from the department telling you how much your salary will be. Read this letter carefully. Most first year graduate students don't realize that their salary will decrease after their first year due to the pay out of your signing bonus, if you received one. This is a standard procedure at most graduate schools, but not expecting this change can be really detrimental in terms of financial planning.
- ◆ Taxes are not automatically withheld from your paycheck, at least during your first year. At the very beginning of orientation you will fill out forms for the Business Office. Be sure to fill out the W-4 form indicating that you want additional withholdings taken out of your check. A good way to figure out how much you should withhold each month is to go to the estimated tax form on the IRS website before orientation begins. For further explanation refer to the payroll website: <http://www.northwestern.edu/hr/payroll>.

- ◆ Your funding source will change in the spring of your first year. At this point you will have to fill out these forms all over again. Some funding sources automatically withhold taxes while others do not. Ask other group members about your particular situation. Additionally, your funding source may change suddenly without your knowledge, so it is important to check your paychecks to see if you need to fill out forms again.
- ◆ Any general questions regarding your funding should be directed to the Business Office in room Tech K138 (<http://www.chemistry.northwestern.edu/staff/index.html#business>)
- ◆ Any general questions regarding your Taxes should be directed to payroll at 720 University Place.
- ◆ There are various different banks in the area. You cannot miss them when you are in downtown Evanston. Also, the University requires direct deposit; see the business office (Tech K118) for details and forms. This can also be done online through the Human Resources self-service website.
- ◆ You will not get paid until the end of September, so don't expect cash flow for moving in.

5. What are the placement exams?

- ◆ During orientation, one of the first things you will do is take 3 placement exams in organic, inorganic, and physical chemistry. These are ACS standardized exams. You are allowed 2 hours for each exam.
- ◆ The American Chemical Society provides a study guide for the Organic proficiency exam. This study guide is a very good representation of the kinds of questions you will be tested on during the organic exam and is worth working through. Visit the [ACS website](#) for more information and ordering costs.
- ◆ If you fail an exam, you will have to take the corresponding Principles course. Consult the current "[Requirements for the Doctor of Philosophy in Chemistry](#)" for more information.
- ◆ Placement exams should not be taken lightly and early preparation is the key. Students who do well and pass will be better off since the exams can be easier than taking the required make-up classes. A solid review of your undergraduate texts should allow you to do well.

6. What classes should I take?

- ◆ Minimum of 9 courses are required to receive a Ph.D, including the three principles courses, for which most students pass out of at least one. So if you pass all 3 principles you'd need only 6 more courses.
- ◆ The principles classes are often useful even if you have passed the exam. If you have a free slot, try to **audit** one or two just for some lectures to get a broader view of chemistry at the graduate level.
- ◆ What you should take will be more obvious once you get here. Ask older graduate students about classes they liked and found useful for their research. Take a look at Northwestern's Course and Teacher Evaluation Council (CTEC) through the registrar to see what other students have to say about the classes:
<http://www.registrar.northwestern.edu/courses/index.html>.
- ◆ You can pass out of a core or required course by talking to the professor who is teaching it. He/she may grill you so don't try to bluff it. This may require showing the professor your undergrad notes, knowing the book you used, and providing the grade you received.
- ◆ If you have a Master's Degree, you are still required to take 9 courses but you may pass out of as many as two(2) in addition to (3) the principles courses, leaving you with four courses.
- ◆ You need to register every quarter, even if you are finished with classes. You need to sign up for research and seminar credits, so that the graduate school recognizes you as a full time student. Ask the Graduate Assistant if you have questions.
- ◆ Get textbooks and notes for classes from older graduate students. It helps in saving money and this is a lifesaver.
- ◆ Try to get your classes done a.s.a.p. They are not that hard to finish within the first two or three quarters and it will be a big relief to have that first requirement done!!
- ◆ You must maintain at least a 5.25 average on an 8.0 scale (A = 8, A- = 7, B+ = 6, B= 5 etc.) For further explanation, please refer to the "[Requirements for the Doctor of Philosophy in Chemistry](#)."
- ◆ One B-minus isn't the end of the world. If you are struggling in a class and are worried, then talk to the instructor to see what you need to do to earn a B instead.
- ◆ The ability to audit classes is there, so take advantage of it. Classes offered in other departments, like biology, materials science and physics are often useful, so give it a go. If you don't like it in the end, you can always stop going.

7. How do I choose an Advisor?

- ◆ This is important folks!! Read up! This is one of the most important decision since choosing graduate school!!
- ◆ You should spend a lot of time researching and thinking about which group you want to work with. How do you do this?
- ◆ Go to group meetings, talk to graduate students in each group, meet multiple times with the professor, read papers and one very important thing...**talk to graduate students!**
- ◆ It is a good idea to glance through the NU website <http://www.chemistry.northwestern.edu/faculty/core.html> and read about the professors' current research. Consider publication history and tenure situations.
- ◆ Attend all the Faculty talks given during Orientation! Throughout Orientation, each advisor will give talk about their research. This will only give you the flavor of their research. If you are interested, make an appointment to talk one-on-one. Make several appointments with advisors and begin early. Also, attend their research group meetings. Attend all of the Faculty talks during Orientation even if they are not in your chosen field. It is important to know the research going on in your department and the resources other groups may have.
- ◆ Attend departmental seminars given by 4th year students, as these presentations will often give you a better understanding of the course of projects within a group. The research presented will include both ongoing research topics as well as the recent history of the group's research. This can be helpful in determining the overall future path a group will be taking. (There's no point in joining a group if the research you want to do has already been done!)
- ◆ You will have to meet officially with four advisors and have them sign a form saying that you discussed research opportunities. Don't be shy about asking them to sign the forms; they know that you have them and that you have to get them signed.
- ◆ Prioritize what is important to you: an interesting scientific project, a friendly/mellow advisor, or a dynamic group of graduate students and post-docs. Ideally, you will find what you are looking for in a project, advisor and group. However, you may not. It is important to think about what is top on your list of needs and wants from your research during graduate school.
- ◆ If you have an idea for a joint appointment, discuss that with the professors. The last thing you want to do is have a joint situation written down as your top choice and the professors are learning about it for the first time!

Make sure to ask several students from one group and not go on just one person's opinion. Here are some questions you may want to ask **graduate students**:

- ◆ What are the typical demands of the professor? What is his/her working style? Hands on or hands off?
- ◆ What do you feel you have learned from your advisor?
- ◆ What is the average time required to graduate from the group?
- ◆ Does your advisor travel a lot?
- ◆ What is your standard work week?
- ◆ What are the typical hours of a graduate student in this lab?
- ◆ Would you choose this group again if you had the chance to do it over?
- ◆ What other groups did you look at when you were deciding?
- ◆ What would you have asked that you didn't if you could do it over again?
- ◆ If the professor gave you a potential project to work on, ask graduate students if they think it's a viable project.
- ◆ Do students get to choose their own projects?
- ◆ How much control over a project do you have from start to finish? Can a student come up with their own original ideas for research projects?

Questions you may want to ask **professors**:

- ◆ Are you accepting students? How many? On what research projects?
- ◆ What is your working style?
- ◆ What do you believe is the advisor's role?
- ◆ How does your group interact with each other?
- ◆ What is your travel schedule?
- ◆ Specifics about their field of research are?

8. Where will I work/study/put my stuff during the day before I choose an official advisor?

- ◆ Each first year graduate student is temporarily stationed in a graduate student office belonging to a research group which you may or may not be interested in joining. You will have a desk. This is a very good opportunity to see how a research group works.
- ◆ Listen closely to what the other graduate students in this office have to say. They probably have information on any group you are considering even if it is not their own.
- ◆ Don't feel uncomfortable working in your temporary office. The graduate students are really a great resource; take advantage of this opportunity.
- ◆ The University Library and the Science and Engineering Library have places to study if you work better in a quieter setting or need to get together with a group.

9. What will my teaching/tutoring responsibilities be?

- ◆ You may teach during all three quarters of your first year, the summer and possibly the first quarter of the second year. On average, students teach four quarters. Generally, organic students serve as organic chemistry TAs/tutors and everyone else teaches general chemistry. Some students have the opportunity to TA at the IMSERC facility, training others on instruments such as NMR, mass spec, etc. The organic classes are under the supervision of Prof. Derek Nelson, and [Prof. Shelby Hatch](#) supervises the general chemistry division. You'll meet them during orientation and receive your teaching/tutoring assignment.
- ◆ For General Chemistry: TA two sections of up to 18 students each per week. Each lab period is 2.5 hours long and you will also have office hours. In organic chemistry, you will teach one 4-5 hour lab per week and keep 1 hour of office hours. You will give a pre-lab talk, supervise the student's work, answer any questions, grade their lab reports, and grade exams. Some students will be assigned as "super-TAs" for general chemistry. The time commitment is the same, except that you will grade quizzes and exams from the lecture section and conduct extra tutor hours and review sessions. Being a super-TA is a good opportunity for those considering a career as an academic as you will be required to give review sessions in front of the general chemistry students.
- ◆ There will be a TA/tutor meeting once a week. Do not miss these meetings.
- ◆ Meeting your teaching requirement effectively is very important at NU. It will be taken into consideration along with your grades and research when you are being considered for candidacy.

10. Does anyone have advice to help me survive this first year?

“Beware of library fines. Late fees from late material can add up quickly (as much as \$5 per hour)!”

"If you have to take four courses at once, take four courses the first quarter rather than the second."

"Get a bike or roller blades. The lake paths are too beautiful to pass up."

"Don't forget to complete and mail out the NU health forms. You don't get many reminders and forgetting leads to registration holds, a late fee, and a lot of unnecessary bureaucracy."

"Talk to the professors early and often, even if you feel unprepared. Go to group meetings. Talk to all the graduate students that you can find—find out what questions they asked and what questions they wish they had asked."

"Make sure you have some idea of what your project will be before you join a group. That's not a good thing to be surprised about."

"Work in study groups for your classes. The competition here is not great, and you will learn a lot more than studying alone."

“Take the safety exam seriously during orientation, or you could find yourself sitting through the 3 hour lecture again.”

“Your enjoyment of your time here is almost completely dependant on your ability to find research that excites you and people you like spending time with. These are probably the two most important factors to consider when selecting a group.”

Important Phone Numbers, Locations, Etc.

Utilities

- Electricity
 - (ComEd): 800-334-7661
- Gas
 - (Nicor Gas): 800-642-6748
- Telephone
 - (SBC): 800-244-4444
- TV Cable and Internet
 - (Comcast): 866-594-1234



Important Stores and Locations

1. Evanston Post Office - 1101 Davis St.
2. Target, Best Buy, Office Max (General goods for apartments, etc.) 2209 Howard St.
3. Dominick's (Groceries) North on Greenbay Rd.
4. Jewel (Groceries) 2 Locations - South on Chicago St., Howard St. (next to Target), and North on Greenbay Rd.
5. Food 4 Less – 2400 West Main Street