

Havird Lab - Graduate Student Expectations

Dear future or current grad student,

Congrats on joining the lab, we're really excited to have you!

Being a graduate student is an exciting time, both professionally and personally. It can also be trying and frustrating at times, even if you're in a great lab and a great program. This document serves to lay out some expectations for your time in the lab, in order to make sure you know what you're getting into and you realize what is "normal" life for a grad student in the lab. This is **NOT** a contract that I will hold you to (or you will hold me to). Each individual will have a different experience given their own needs and desires, and this document may change while you're in the lab. However, I think it's important for you to know ASAP what I expect from you and what you can expect from me.

Graduate students are the **heart** and **soul** of our lab, and academic research in general. I want you to have a good experience in the lab, because without you, there is no Havird Lab... ☺

Cheers,

A handwritten signature in black ink, appearing to read "Justin", with a long horizontal flourish extending to the right.

Justin

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Some key principles guiding the lab

Respect. We respect the opinions and rights of all lab members. We give people space to express their opinions (listen and take turns talking), and we respect our common space (both intellectual and physical space). We respect diverse backgrounds/experiences, and make a concerted effort to communicate across those experiences.

Equitable and inclusive environment. Fostering a welcoming and inclusive environment is critical, and we work actively to make our lab and the scientific community a better place for everyone. All forms of discrimination are not tolerated. We welcome diversity in all its forms including all religions, nationalities, generations, socio-economic statuses, first-generation, LGBTQIA+, BIPoC, Latin, disabled, and all other groups traditionally underrepresented in science. We also realize everyone is coming from a different place, both scientifically and personally, and will make adjustments to make sure everyone has an equitable experience in the lab.

Communication. We strive for clear channels of communication, avoiding condescending styles of communication that can be hurtful. We are empathetic toward each other and express that empathy in our daily communications.

Professionalism. We conduct ourselves appropriately, are responsive to lab requests and emails, come prepared to our obligations, follow through with our agreements, and avoid negativity, gossip, and poor inter-individual dynamics.

Engagement. We show up! We participate in departmental and lab activities on a regular basis, and promote the broadest participation by all members of our group. We participate and help organize lab events, outreach, or other activities. Our invitations to these events are always inclusive. We contribute enthusiastically to events and lab actions that build our community.

Integrity. We pledge to uphold the highest ethical standards in research and professional actions. We follow all ethics guidelines for performing research, require students to take training in research ethics, and do not tolerate unethical or dishonest behavior.

Support. We help each other! We celebrate all successes for lab members. We openly discuss and troubleshoot failures. We collaborate on maintaining this supportive environment not only in our science, but in our interactions, friendships, and collaborations.

Independence. We foster a collaborative environment, but a major goal of mine is for you to become an independent thinker. We therefore encourage lab members to pursue the lines of inquiry and methods they find most exciting.

A typical day for a grad student

One of the nice things about academia in general is the varied experiences you'll have. You can expect to spend some time working the lab doing experiments, some time in your office space working on your computer (writing a paper/proposal, analyzing data, or developing some bioinformatics pipeline), some time mentoring more junior lab members, time in the field working with your study organism(s), time in the classroom (both learning and teaching), and time meeting with me and other colleagues.

Hours and work-life balance

There is no minimum number of hours you must work per week. I will not keep track of when you're in the lab or at your desk. If you work a lot, that's great. If you can work very effectively in a short amount of time, that's equally great. You can work from your office, your home, or a coffee shop. It's more important to me that you're making adequate progress on your various projects. We may discuss you spending more or less time "working" if you're struggling with meeting deadlines or feel that you're spinning your wheels.

Generally, I expect you to be available on a somewhat regular time schedule so we can discuss research questions and ideas as they arise. This likely means you should expect to spend some time in your lab/office on weekdays, but it doesn't have to be on a specific schedule and can change whenever. If you're planning to be out of town or away from the office for more than a couple days (e.g., going to visit somewhere), let me know so I know what's going on. I am generally around based on when UT is open, although I'm also tied to the Austin AISD calendar and usually have childcare responsibilities when Austin schools are out. I generally don't travel for long trips, except for summer (and sometimes spring break), where I'll often be out of town for a week or more at a time. Overall, take time off as you need, just communicate your needs to me.

Most successful grad students realize that making progress in research requires time – and time management. Everyone's experience with this will likely be different. Some experiments may require you to come in at odd hours or work for many hours at a time. These are usually short-term and you can definitely work "more now and less later". There may also be deadlines for papers or proposals that need to be met, which might require you to work more at certain times. Proper time management can mitigate this, but it's something that everyone struggles with.

Salary and financial support

You are guaranteed a certain salary and length of employment when you sign your contract at the beginning of your appointment as a graduate student. This will vary depending on what graduate program you're in, whether you have a fellowship, etc. I will often "top off" students that get paid a base rate lower than students in other programs to make pay more equal in the lab, but these funds come from grants and I can't guarantee this. Some graduate students in the lab may therefore get paid more than others, and it's not always because they have worked harder, etc. Assuming you make acceptable progress, you are also guaranteed a certain number of years of being paid (usually 5), although if you're making reasonable progress on your degree, this can usually be extended. All graduate students in the lab are **guaranteed summer salary** in one form or another. You can expect the terms of this contract to be upheld by myself and the administration. I also expect you to uphold these terms.

Generally, biology graduate students make enough money to live a comfortable, but not upper-class lifestyle. Austin is expensive and is becoming increasingly so. While stipends are increasing in some graduate programs, graduate students will likely continue to have to make difficult choices about living arrangements and lifestyle choices. Your stipend should ensure you can live fairly close to campus and bike/commute using public transportation, but you might only be able to afford a small apartment or studio. UT students can ride Austin Metro buses and rail transport for free and UT has a free shuttle service for UT personnel that has many stops around town (<https://parking.utexas.edu/transportation/shuttles>). There is also a program where you can get free Lyft rides after 11pm from main campus (<https://parking.utexas.edu/transportation/ut-night-rides>). Alternatively, you may be able to afford a nicer place, but have to live further away. While parking at UT is a possibility, it is very limited and quite expensive (even for faculty - <https://parking.utexas.edu/>). Most graduate students live fairly close to campus in a decent apartment with a partner/roommate or in a standalone house with more than one roommate. Taking out loans should not be a normal part of a grad student's experience. Most graduate students qualify for Austin's Affordable Housing, and you can search for housing options under that program here: <https://www.austintexas.gov/department/affordable-housing-online-search-tool-ahost>

Funding

Grad students in the lab are funded by a mix of TAs, RAships, and their own grants/fellowships. See below sections for expectations of TAs and RAships.

All grad students in my lab are expected to apply for their own funding. This means putting in both large fellowship applications (e.g., NSF predoc, NIH F31, or Stengl-Wyer fellowships) and small-scale grants to fund your own travel and research. You can expect me to support you in your applications in a variety of ways: helping come up with ideas, drafting proposals, editing them with you, submitting them, following up with resubmissions after they're inevitably rejected, and finding funding opportunities for you. We will work together to identify funding opportunities, but a nicely curated list can be found here: <https://research.jhu.edu/rdt/funding-opportunities/graduate/> There are also a decent number of funding opportunities at UT at the department, grad program, college, and university levels.

Applying for your own funding accomplishes a few things:

- 1) It gives you “**lines on your CV**” – publications, presentations, service and mentoring accomplishments, and successful funding opportunities all contribute to a productive graduate career. You must have a certain number of these lines to apply successfully to your next position (postdoc, internship, real job, or whatever).
- 2) It frees up money in the lab for us to do other things – hire more people, do more projects, and get more equipment. This has a real impact when it comes to fellowships and supporting your own salary – graduate students and people in general are the most expensive part of running a lab.
- 3) It gives you more **independence** – if you secure money to do a certain project, then you can do it. Even if I'm not the biggest fan of it. You also won't have a TA or RA commitment to worry about. Cultivating independent scientists is a major goal for graduate students in the lab. If you can come up with a project and get others to buy into it, you're halfway there (doing it is the other half).
- 4) It gives you experience writing proposals. This will likely be a future part of your career in some way, so getting experience doing this in grad school is important.

TAing

You will be expected to TA at least somewhat during your time as a graduate student. Some graduate programs have an official TA requirement, but even if not, I want you to TA at least for a semester or two. This gives you experience teaching (which may be an important component of a future career), helps you learn or remember fundamental aspects of biology, and frees up some money in the lab (TAs are paid for by the university, RAs are paid from active grants we have).

While rewarding, TAing takes a lot of time. Especially the first time you do a specific class. Therefore, you'll naturally not be able to focus as much on your PhD research when you have to TA. Graduate students that must TA their entire time take longer to graduate than those on an RAship or their own fellowship.

Therefore, I will not allow you to TA the entire time you're in the lab, even if you plan to mostly teach after graduate school. There are other ways to get experience teaching in addition to TAing, and to graduate you must complete your dissertation research. Generally, you should expect to TA at most half of your time. Our goal should be to decrease your time as a TA, either with RAships or fellowships.

TAs are expected to spend ~20 hrs/week on their TA commitment.

RAing

You may be on an RAship at some point as a graduate student. Ideally, the grant supporting you as an RA is fairly aligned with your own research interests. In the best case, you can work on your own dissertation research while supporting the aims of the grant. However, this might not always be the case. It may be that the projects you work on as part of an RAship become side projects that you take the lead on. You may also work on part of a project, where you generate data, but are not the lead on the project. During semesters when you're on RA we will discuss your RA responsibilities and what I expect you to do.

I expect you to work ~20 hours per week on the research objectives aligned with your RAship while you're appointed.

Developing ideas and independence

Finally, a section about **science**! How do you decide what research you will do as a graduate student? As mentioned, a major goal for every student in the lab is to turn them into an **independent scientist**. Part of this is being able to absorb information from the literature, presentations, or other sources and identify interesting knowledge gaps that can advance one or more fields. Then devising an experiment or analysis plan to fill those gaps with novel discoveries. This is what I expect you to do.

As a PhD student, I will not “hand” you dissertation projects. You are welcome to read funded grants for inspiration, but a majority of your dissertation research ideas should come from you, not me. You can expect me to discuss your ideas with you at length to identify which ones are most likely to be impactful and feasible. I will not let you pursue a project I think will take too long, not produce a meaningful contribution to some field, or be too tricky.

When you first join the lab, I may suggest a particular project that needs a lead – this is largely to get you experience working in the lab, using methodologies we use, and getting your name on a publication. These initial projects will likely be a side project for you, not a dissertation chapter. By the end of your first year in the lab, you should have a general idea of what you want to do (i.e., the overarching question your dissertation will address). By the end of your second year, you should have several clear projects (at least 3) that can be dissertation chapters. Again, we will work on coming up with these ideas together, but the “kernel” of these projects should come from you. Of course, things may change at any time and you’ll likely drop some projects and pick up others along the way.

Individual development plans (IDPs)

You can also expect to have an IDP in place when you start and for us to jointly revisit and revise this document every year. This will have research goals such as experiments to complete or techniques to learn, classes to take or TA, funding to apply to, meetings to attend, manuscripts to write, and other goals that should be accomplished over the following ~year. It will also have a summary of your overall career objectives that we can change as they change. These IDPs should serve as a big picture roadmap for you to get where you need to go.

Milestones

You'll have to **jump through various hoops** to fulfill the requirements of your graduate program. The lab has traditionally taken students through the CMB and EEB graduate programs, although we can also take students from other graduate programs. Each program has its own distinct requirements, so you should read your graduate program's handbook thoroughly. It's also possible that your experience in the lab might be quite different from other graduate students if they are in a different program.

However, most programs include a few key requirements. This includes taking some number of required courses and another number of elective courses. You'll also have to form a graduate committee (or two), have regular meetings with them, take your qualifying exams, submit annual check-ins to a graduate program officer, and eventually undergo a dissertation defense. These requirements should be laid out in pretty good detail in the graduate handbook of your graduate program. I expect you to read and understand this document and generally stay up to date with these requirements or ask graduate program officials if we have questions. You can expect me to also read and understand this document and prepare with you when approaching a milestone.

Forming your dissertation committee is an important milestone. This is something we should shoot for you to complete by the end of your first year. Committee members might become collaborators, so it's important for you to pick people that can help your research, but will also get along with you and me. This is also an opportunity to get to know other researchers that aren't at UT that might be "big names" in your field (and potential collaborators or even postdoc advisers). I'll help do this. You should have a committee meeting once a year.

Being a good lab citizen

You'll be working with a diverse group of scientists, including other graduate students, postdocs, undergrads, and others. I expect you to support these other folks with any reasonable request. At the minimum, this would include keeping any shared spaces clean and making sure things are in their proper place. Part of being professional in the lab includes letting others know when you need to monopolize a piece of equipment for a long time, or take a laptop home for data analysis. Sending an email to the lab and asking if this is ok should be standard practice. This will likely also include helping others in their various endeavors, maybe by helping for an afternoon on an especially labor-intensive project, looking after animals while someone is out of town, or teaching a colleague how to do something. Others in the lab should also help you out with your work. Lab members also read drafts of each others' manuscripts, comment on presentations, and give general feedback on their research. You can expect me to also be a good lab citizen and take any complaints about bad lab citizens seriously (or any suggestions to improve how the lab functions as a group).

Face to face time

While we'll have lots of informal interactions, it's important that we have a standing weekly meeting to discuss research and professional development. I expect you to attend this meeting as scheduled, although we can reschedule and cancel from week to week if needed. You can expect me to also be available and prepared for this meeting. At this meeting, we can discuss your ideas, current research projects, things that aren't working, what certain results mean, and anything else. We should identify weekly goals to be met before the next meeting (e.g., run some specific samples, write a specific part of a paper, etc.). This meeting should be scheduled for 1 hr, although we don't have to use the whole time. As you become more independent, we may also switch to meeting less frequently if everyone is ok with that.

During this time, we can also do some hands-on activities with me showing you a specific method. However, this is often too time-consuming for a single meeting, so we'll schedule additional time in the lab or on the computer to do hands-on activities. It might also be better for you to learn something on your own without me or from someone else in the lab (either so you understand it more fully or because I don't really know how to do it).

Communication

Email should be our primary means of communicating remotely. I generally respond to emails quickly and I expect you to do so also (within reason). You are encouraged to update me via email on research progress or new results, and feel free to drop in my office and share with me. If there isn't a deadline or something approaching, we can always address things via our in-person meetings, at our weekly lab meeting, or more informally in the lab (I try to check in on folks in the lab/office about once a day).

We should also have a more general "how-are-things-going" meeting a couple times a year. This serves as a good point for us to revisit any communication practices, lab policies, or other things that might be hindering your time in the lab. While you can always feel free to criticize me, this is a specific time to bring up any complaints we might have about our working relationship.

Conflict resolution

Many grad students feel some type of personal or professional conflict with their adviser at some point during their graduate career. We should address these conflicts in a professional manner. This could include something as simple as knocking on my door and us having a frank discussion about a miscommunication or misplaced/not met expectations. I want you to always feel comfortable bringing up such issues with me and I will let you know if I find something unsatisfactory about your performance/behavior.

Other times, a written email might be best. This might just be a more comfortable style to communicate a difficult topic, or we might want to have a paper trail of our discussions.

You should also feel comfortable going to someone else to discuss a conflict with me at any point. This might include your graduate program officer, a member of your graduate committee (some committees have a designated member for this), an adviser, the chair of the department, or even a higher official at UT (i.e., ombudsperson). I won't be offended if you go to someone else for conflict resolution and some graduate handbooks have fairly detailed flow-charts outlining various options.

Whatever the reason, I promise to not retaliate against you for any perceived conflict – meaning I won't treat you differently because we have had a conflict (this is illegal as well).

If there are peer conflicts within the lab, this should also be addressed frankly and openly. Coming to me with any lab-related conflicts would be a logical first step, but if that is uncomfortable, always feel free to go to a different PI or supervisor to resolve a conflict. If you have a small problem with an undergraduate in the lab (e.g., them placing things in the wrong spot), feel free to address it with them directly. If it is a bigger or continuous issue, you might address it with their direct supervisor (the grad student or postdoc they work with), or even come to me.

Mental health and well-being

Maintaining mental health and well-being in graduate school can be difficult. It can be a stressful time professionally and personally. I will always be supportive of your personal choices to promote your mental health, which might include taking time off from research, restructuring our mentoring relationship, and various accommodations related to time or duties. However, I am not trained to be a therapist.

Fortunately, UT offers a wide range of mental health and related services by trained professionals that are free for graduate students. These are housed under the “Healthyhorns” umbrella program and include:

1. **The University Health Services (UHS)** is an on-campus medical facility serving the students, faculty, and staff of UT Austin. Staff provide healthcare, public health leadership, and other services designed to protect and advance students' health and support the well-being of the campus community. UHS provides a 24/7 nurse advice line, nutrition services, and an STI nurse screening clinic. This facility on campus has a general medicine clinic and laboratories, a gynecology, a sports medicine clinic, physical therapy, and an allergy, immunization, and travel clinic. These services are usually provided free (\$10 for urgent care) for graduate students (check with current policies sure).

2. **The Counseling and Mental Health Center (CMHC)** is an accredited AAAHC (Accreditation Association for Ambulatory Health Care) mental health clinic that provides support through assessment and referral, group and individual counseling, psychiatry, and well-being services to UT Austin students. Their services include:
 3. **Individual Counseling:** A confidential and one-on-one therapy process where a trained mental health professional helps students address and manage various emotional, psychological, and behavioral issues. Individual counseling is usually offered for ten sessions, after which the students will be referred to a long-term therapist. There is no cost to UT students for these counseling sessions.
 4. **Group Therapy:** A therapeutic approach in which a trained mental health professional leads a small group of students who come together to share and discuss their experiences, feelings, and challenges in a supportive and confidential setting. There is no cost associated with group counseling.
 5. **Counselors in Academic Residence (CARE):** The College of Natural Science has three different CARE counselors that provide short-term counseling and mental health consultation, workshops and outreach, and assistance connecting to resources on and off campus in an accessible academic setting. There is no cost associated with CARE counselors.
 6. **Psychiatric Services and Medication Management:** CMHC offers a Psychiatric evaluation and recommended treatment. The cost per psychiatric visit is \$10.
 7. **TimelyCare:** A virtual mental health platform offering 24/7 support, scheduled counseling, psychiatry services, health coaching, and self-care content. This platform is free for graduate students.
 8. **Counseling and Community Outreach Specialists:** Clinical experts on the mental health of specific student populations who have a unique role in specializing services to meet the needs of marginalized and underserved groups to reduce risk and improve outcomes. Graduate students can benefit from this for free.
 9. **Mindful Eating Team:** This team supports students with questions or concerns about their relationship with food and movement. There is no cost associated with mindful eating appointments, but students will be referred if needed after ten counseling sessions.
 10. **Substance Use Support Team:** This team provides support for students who have questions about their own or someone else's substance use. These appointments are free, but students will be referred after five counseling sessions if needed.
 11. **Voices Against Violence:** Confidential advocacy, counseling, and group services for students who have been impacted by any type of interpersonal violence, including sexual violence, dating violence, and stalking.
 12. **Case Management:** A dedicated resource for accessing campus and community services. Whether students seek mental health care or address basic needs, they offer comprehensive assistance, coordination, and advocacy to empower students' well-being and success. Case management appointments are free.
 13. **Longhorn SHARE Project:** (Support, Healing, Active listening, Reciprocity, Empowerment) – A mental health and social connection-focused peer support program under the Longhorn Wellness Center. They offer a range of non-clinical, non-

hierarchical, comfortable spaces for UT students with shared experiences or identities to experience mutual support, growth, vulnerability, and genuine connection. SHARE project services are free for UT graduate students.

14. **CMHC Crisis Line** is available 24/7. Graduate students have free access to this crisis line in case they need it.

15. **Student Emergency Fund**: The College of Natural Sciences Student Emergency Fund supports graduate students with various emergencies (including mental health crises), helping them to get back on the path of success.

16. **UT recreational sports facilities**: UT has a variety of recreational facilities, and graduate students have free access to all of them. These facilities include high-quality gymnasiums, rock climbing facility, and pools around campus. They also offer a variety of exercise classes. Personally, these facilities are great resource for me to maintain mental health after a long day in the lab!

17. **Longhorn Wellness Center**: Graduate students have free access to the wellness center which promotes student well-being and creates a healthier campus community. Professional and student staff lead health promotion initiatives, provide trainings and workshops, guide peer education and create health message campaigns.

18. **MindBody Labs** – Graduate students have free access to these labs which help to teach students how to improve emotional and physical health with relaxation techniques, meditation, guided imagery and more.

19. **Disability and Access (D&A)** – Graduate students have free access to the D&A office which determines eligibility and helps implement reasonable accommodations for graduate students with disabilities. Provides outreach across campus to create a more inclusive, accessible and welcoming environment.

20. **UT Outpost** is an on-campus food pantry and career closet for currently enrolled graduate students at UT Austin in need of food or gently used professional clothes. Students can keep the clothes after choosing them.

21. **Legal services** – Graduate students can receive free advice on rights and responsibilities in different areas of law, including landlord-tenant disputes, criminal citations, small claims court, car crashes and insurance, personal injury, powers of attorney, and consumer matters. Services are confidential and free for students to use.

<https://deanofstudents.utexas.edu/lss/>

Co-mentoring, switching advisers, leaves of absence, and leaving the lab early

I'm very open to you having a co-adviser. There are a number of reasons why a co-adviser might be a good idea and they can be added right at the beginning of your time, but also very easily later on. You might value their expertise, it might be a personal issue with mentoring styles (you like theirs or want something additional that I can't provide), or it might be professional (you like the way their lab is run or their research and might want a rec letter or more from them in the future). If you think having an official co-adviser (rather than just a committee member or collaborator) would be helpful at any time, I'm happy to discuss it with

you and them. There may be some logistical details to work out, but its generally easy and can be fun.

If you need to take a leave of absence, I will support you in whatever way I can. This includes pursuing the formal paths to officially going on leave at UT, considering how you might be able to pivot duties to working at home, etc.

Students switch advisers during their PhDs, more often than most think. This should not be as stigmatized as it is and can be a good idea for both the student, adviser, and the whole lab. You may want to switch labs due to research/professional reasons, or due to personal reasons. Sometimes two people find it hard to have a working relationship and its just best to go their separate ways. Again, this shouldn't be a big deal. If you ever feel like switching labs, let me know ASAP so we can discuss why, set timelines, and start making plans.

Finally, if things are not working out for you in graduate school, it is perfectly fine to leave without getting a PhD. A PhD isn't for everyone and you can still be a great scientist (or more importantly a great person). There are options to switch labs, get a Masters degree (which is never for free and still requires writing up and defending a thesis), apply to a different program, or pursue a different career. In any case, we should discuss these options early if you're feeling that this path isn't for you. Its better to cut ties early than spend a few miserable years before thinking you're in too deep.

P.S. – No graduate students have left the lab yet, so its not like this is common, but best to think about it before you join. Similarly, while the above is written from your perspective, if you aren't fulfilling my expectations, I might talk to you about switching labs or leaving the lab early.

Publishing

An important part of science is disseminating your research. Right now, peer-reviewed publications are the main way we do this. While this could change in the future (peer-review is a flawed practice), research that is not peer-reviewed is currently “invisible”. It's either hard to find, or if it can be found, it's hard to take it at face value.

Because of this, I expect you to publish your work. At a minimum this will consist of publishing your dissertation chapters, hopefully as they're being completed and not at the end of your graduate career. You should typically shoot to have all your dissertation chapters published, in review, or close to submission before you defend – with you as the first author. There's also a good chance you will have other publications in the lab, either side projects that you lead and write up, or ones you help with where you are listed as a co-author. These aren't hard rules for graduating, but I wouldn't expect someone to be ready to graduate without a single chapter published.

Publishing is also important for your career. Almost any career in biological research will expect a graduating PhD to have some experience publishing their work. First-author publications also let others know you generally lead scientific work.

Authorship can be a somewhat touchy subject, but in general you should expect to be the first author on projects you develop, carry out, and write up. I'll generally be the last author on your publications if they're carried out in my lab. For other cases, we should make it a point to discuss authorship on projects early during their development.

I will work with you throughout the writing, editing, and publishing of any manuscripts, giving you tons of feedback for earlier manuscripts and letting you transition into hopefully a more independent writer later on in your graduate career.

Mentoring

Most graduate students in the lab mentor undergraduates and you should expect to mentor at least a couple. Science is a team endeavor and as you transition to being a more senior member on the team, you need to learn how to effectively manage and train more junior lab members. We will discuss effective mentoring strategies and how to maximize the experience, for both you and your mentees. I also take undergrad mentorship seriously and we want to ensure we are getting people excited about science, not driving them away.

Mentoring undergrads should be a fairly standardized procedure in our lab group. There is a mentee handbook (https://docs.google.com/document/d/1wkW0jrSyzPZvJIDq-XDgxGh9c5Xmv_j4ilyTv-ZKfPo/edit?usp=sharing) that you should follow, especially when first taking on a student. It is also important that we aren't taking advantage of undergraduate researchers, they should be compensated for their work with pay, research credits, and/or authorship. They should also be encouraged to apply for their own funding and present their work at meetings. As mentioned above, feel free to address any concerns about undergraduate mentees with me, their direct supervisor, or themselves if you feel comfortable and can do so professionally.

Writing, presenting, and other professional skills

You should expect to learn how to effectively communicate your science to the scientific community and to broad audiences. This will mostly involve a lot of writing: manuscripts, proposals, and other documents. Expect me to help you learn how to write more effectively. This includes face-to-face time where we sit down and go over why what you wrote isn't how I would write it. We will always go back-and-forth editing and rewriting manuscripts and proposals before they are submitted, sometimes dozens of times. You can also expect to get feedback from the rest of lab, both formally during lab meeting and informally during brief conversations or after sending a draft around. Other professors in the department may also give you feedback and collaborators should have plenty of time to give comments before something is submitted. Your ultimate feedback will come from reviewers, and we'll work together to draft responses to any comments they make.

You are also expected to present your work. This will consist of mostly informal presentations during lab meeting (you should expect to update the group on your projects once per semester), and more formal presentations at national and international [conferences](#). Myself and others in the lab will give you feedback on your presentation, including everything from the visuals to your speaking style, before you have to present formally.

I expect you to attend about one conference per year, which might include venues the lab usually attends (SICB, SMBE, Evolution) or other conferences that you're specifically interested in. If you present your work, you can expect the lab to cover the costs of going to the conference (at least one per year). However, I expect you to also actively apply for travel funds from the department, college, and the conference itself. A successful conference may yield multiple "lines on your CV", including some funding, the presentation itself, service activities performed at the conference, maybe an award, presentations by a mentee, etc.

Conferences are a great way to get to know the community more broadly and get feedback on your work. If I attend the conference with you, you can expect me to introduce you to potential collaborators, "big names" in the field, and generally make you feel welcome in the community.

You should also expect to gain other professional skills while in graduate school, like learning to put together an effective CV or job application packet.

AI use in the lab

The use of AI tools and chatbots like ChatGPT or Co-Pilot is a growing area of promise and concern in scientific research, academia, and society in general. UT has provided general [guidelines and recommendations](#) for when it is appropriate to use AI during your graduate education, and our lab group is expected to follow these. There are also general guidelines for specific journals and scientific societies about how AI can be used and how its use should be disclosed. For example, we routinely publish in *Molecular Biology and Evolution* – they do not allow AI tools like ChatGPT to be listed as co-authors and state “The use of AI (for example, to help generate content or images, write code, process data, or for translation) should be disclosed both in cover letters to editors and in the Methods or Acknowledgements section of manuscripts.”

More broadly, my own recommendations about using AI tools and the ethical questions they raise change all the time. However, in general, I view these tools as... tools. They are there to *help* you in a particular task. They should not be a *replacement* for you. If they are, then there is no reason for you to get a PhD, me to run a lab, or graduate education (and research in general) to exist in the first place. Along these lines, AI tools can be used freely to check/improve on computational code you are trying to write, but the ultimately responsibility in making sure this code is doing what you think it is falls on you. Similarly, you might use AI to help draft a section of a paper or edit a particular section you are struggling with. However, it is ultimately *your* voice that should come through in your writing, so it is your responsibility to take feedback from AI into proper consideration and follow it blindly. Similarly, AI tools may suggest ideas you haven't thought of, but it is up to you to evaluate these ideas and decide whether they are useful starting points, outdated ramblings, or merely hallucinations of a chatbot trying to make you happy. Anyone can craft a prompt about research, but knowing which prompts might be the most productive and evaluating their output requires a level of expertise that should be commiserate with PhD level training.

Collaborations and sharing data

In general, I am very supportive of you forming outside collaborations with other researchers. This might include me as part of the collaboration, but doesn't necessarily need to. The only concern would be if you're collaborations outside of the lab are taking too much of your time and energy and your dissertation work is suffering because of it.

Similarly, I'm usually fine with anyone sharing data with interested researcher ahead of publication. We're not usually concerned with getting "scooped". Of course, if you worried about sharing data, you don't necessarily have to. We do tend to make our sequence data public ahead of publication.

Graduation

So, what do you have to do to graduate? How long will it take? In general, you need to publish your dissertation work, fulfill the obligations of your graduate program, and get the approval of your committee to graduate. Publishing your dissertation work means that at least one chapter should be published and the other two should be in review or close to being submitted. Fulfilling the obligations of your graduate program means taking all required classes, doing the required TAing, passing all exams, writing your dissertation, etc. Getting the approval of your committee means passing your defense. Some of these are hard rules, while the publication one is a bit more flexible, but this should give you an idea of the expectations for graduation.

In general, biology graduate students take 5-6 years to graduate. There is a ton of variation around this though, and if you come in with a master's degree or significant prior research experience, you'll hopefully graduate sooner. Sometimes projects work out really quickly and easy, and other times they take a lot of troubleshooting. Students that have projects dependent on successful field seasons might take longer as well.

Finally, if you've got something lined up for after you graduate (a postdoc, a job, etc), myself and your committee will be more likely to feel ok with you graduating "early".

Your career (i.e., after grad school)

Even though you will eventually leave the lab, we will likely continue to maintain a working relationship for many years. We will continue to work together in the short term after you graduate for you to finish off any projects and submit your remaining work for publication. If you're no longer interested in the work you were pursuing (or if you stop responding to communication), we can discuss if it would make sense for someone else in the lab to finish it off, or for me to write it up. But as long as you still want the responsibility, the projects you lead in my lab are still "yours", given that you make an effort to work on them.

In the long-term, I hope that we can continue to remain colleagues. This could include starting new projects together, co-authoring grant proposals, serving on committees together, co-mentoring students, etc. I still maintain active collaborations with many of my previous mentors and mentees, and I hope this will carry over to our relationship.

I'll also support whatever career you are most interested in pursuing. I'm most familiar with the academic career path, but other options include a career in industry, an NGO, the government, etc. I can put you in touch with colleagues that have connections in industry, including former students. The CNS graduate career adviser (po-tsan.ku@austin.utexas.edu) is also a fantastic resource, along with the entire office of career and life design (<https://gradcareer.utexas.edu/>).

Rotation students

We regularly host rotation graduate students in the lab and try to support them in whatever reason they have for doing a rotation. Some students want to learn a specific skill, in which case we can find a project to give them hands-on training or they can assist someone with an ongoing project. Others want to experience the culture of a different lab. Still others are actively looking for what lab they ultimately want to join. In any case, our rotation students will get a good feel for what it's like to be in the lab. They often work on small, manageable projects where preliminary data can be generated in a short amount of time. They also often appear on publications or even write their own publications based on the work done during their rotations. However, there are really no requirements for rotation students in the lab – like regular PhD students, their experience is largely dictated by their goals and the effort they put into a rotation.

What you can expect from me

In addition to the specifics mentioned above...

You can expect me to listen to you seriously when you have problems and make an effort to address them. You can also expect me to be flexible – I realize we all have more important things in our lives and we sometimes need to be cut some slack to deal with life. I will also be around on a regular schedule, and you should not have to hunt me down to get feedback on something. Expect my door to almost always be open, and I'll let you know if I'm going out of town or will be unavailable for a time.

You can also expect me to constantly be applying for grants to support the lab. You should expect me to support you on RAships and in fellowships as needed for you to complete your dissertation research, especially if your dissertation aligns well with funding in the lab. You can expect me to thoroughly discuss your research objectives, give you options, and outline clear goals and deliverables for your projects and to keep you on task. However, you can also expect me to let you pursue your own ideas and develop projects as you best see fit.

You can expect me to provide thorough, timely feedback on publications and other written materials. I will not hold you up from publishing or submitting something. Similarly, I won't hold you up from graduating. If you've fulfilled your degree requirements, made decent progress on writing up your dissertation chapters, and your committee is ok with it, I'm fine with you graduating and won't keep you in the lab indefinitely as a worker.

You can expect me to write decent rec letters for you as long as you need them. If I can't write something positive, I'll let you know instead of sinking a potential application with a negative letter.