

Lab Manual

1. Communication

Because I am often busy and easily distracted, I rely on you to help manage our communication flow. I will never be annoyed by repeated reminders; in fact, I view them as a helpful tool to keep projects moving.

- **Standard Follow-ups:** For non-emergency situations (e.g., email replies, draft feedback), please send a reminder if you haven't heard from me within **48 hours**.
- **Critical Deadlines:** If we are approaching a firm deadline, please send a reminder within **24 hours**. In these cases, feel free to **text me** to ensure I see the message immediately.
- **Off-Hours:** You do not need to worry about "appropriate" times to text; I ignore my phone when I am "off" at home, so your messages will not disturb my personal life.
- **Active Meetings:** Plan to use our weekly meetings to complete "quick" tasks together—such as signing forms, reviewing statistical analyses, or editing short sections of a draft—as this is often the fastest way to get things done.

When emailing me, it is generally more productive to keep emails focused on specific themes. That is, if you need input on two or three different things, it's often better to put them in different emails, rather than listing them all in one email.

2. Lab Benchmarks & Academic Trajectory

The primary goal of this lab is to ensure you graduate with the title of "Doctor". To achieve this while building a competitive research portfolio, I try to follow a year-by-year benchmark system. While milestones always take priority over side projects, we aim for a consistent "one-two punch" of completing a milestone and a research paper each year. This is the *ideal* goal, but it is not a hard-and-fast requirement, nor is it a major problem if you find you aren't meeting all of these things. I have mentored *phenomenal* students who *far* exceeded these guidelines, and I have mentored *phenomenal* students who have taken extra time, never published first author papers, or struggled with milestones. As I have mentioned repeatedly: **your success and goals are more important to me than any other aspects of being in this lab.**

I think it is important to note that I do not expect you to be a researcher with a decade of experience until you are a researcher with a decade of experience. As students and mentees, I expect you to have the knowledge consistent with your year in the program. So, for a first year, I would expect eagerness to work and willingness to learn, as well as some beginning skills as a writer. As a student progresses, I expect development as a writer and as a thinker and for more skills in data analysis to develop. By the time of your dissertation, I expect a student to be able to plan and execute whatever level of statistical analyses that are needed for the project, but that milestone is often close to five years after starting the program and those skills will develop over that time. The process of earning a Ph.D. is as much about learning how to do things and how to think as it is about any single content area. You will finish your Ph.D. in this lab as an expert in behavioral addictions, that is a given, but it is my hope that you will emerge as an expert in the *process* of research and in critical thinking.

Having said all of the above, I think that clear expectations, even ambitious ones, are helpful for students in maintaining and tracking their own progress.

Year-by-Year Roadmap

Year	Milestone Focus	Research & Publication Focus
Year 1	**Masters Proposal**	Complete a draft of a separate research paper (submitted or near ready).
Year 2	**Masters Defense**	Second first-author paper/draft (publishing the Masters is a great fit here).

Year	Milestone Focus	Research & Publication Focus
Year 3	**Comps Proposal** (Semester 2)	Third first-author paper draft; increasing autonomy in project lead.
Year 4	**Comps Defense** (Sem 1) **Dissertation Proposal** (Sem 2)	Additional papers as interested; publishing the Comps project is highly encouraged.
Year 5	**Dissertation Defense** (Sem 2 latest) **Internship Applications**	Additional projects and papers as interested.

Again, these are general guidelines and not hard and fast rules. Some students move more quickly and some do not. Ultimately, I do not have hard deadlines for my students for most things. I will *never* be the advisor that tells you that I have to have a draft by a certain date or that you must get your proposal done by a specific deadline that I made up, with one exception: I do expect you to defend your dissertation **before** you leave for internship. You will be responsible for maintaining your own progress, setting your own goals, and meeting your own deadlines. I will assist you in determining if your own deadlines are realistic or reasonable, but I am not going to provide or enforce arbitrary deadlines.

A note about career paths: The goal of a clinical science program is to train clinical scientists. By joining our lab, it is generally expected that your career goals will align with these program goals and that you will pursue a career in which research is a major component. However, my personal goal for you as your mentor is that you pursue the career that you feel drawn to and that you succeed in the career that you find fulfilling. You will face enormous pressure from this program to choose a research career above all else. This pressure is a function of the accreditation demands placed upon our program. But, to be clear, this pressure does not and will not ever come from me. If you decide that a different career path makes more sense for you and your well-being, then we are going to work together to get you to that.

3. When Life Happens

Part of being a successful academic, to use a metaphor, is learning how to juggle an immense number of different balls. This sort of analogy is often used in professional development and training settings for early career folks. But, what is often left out, is that part of success is also learning which “balls” are made of rubber, which are made of glass, and which are hand grenades. I know that the analogy sounds ridiculous, but part of learning to juggle different priorities is learning which balls you can drop. You cannot meet every obligation, every expectation, and every deadline in every situation. Balls will drop, deadlines will be missed, papers will be late, rejections will happen, problems will occur. This is life. It is normal. It is expected. But, you have to develop an understanding of which things can be allowed to fall to the side with little consequence (rubber balls), which ones will fall apart if you let them go but with little long-term risk (glass balls), and which ones will create massive consequences and repercussions (hand grenades).

Examples of these categories might be:

Rubber Ball: taking longer to get a draft of a paper to me than you planned; proposing your masters in 1st semester of 2nd year instead of 2nd semester 1st year. These things might not be ideal, but really, they are fine.
Glass Ball: Responding to a "Revise and Resubmit" (R&R); conference deadlines. If we drop these, we probably miss the opportunity for good, but it’s just one paper or just one conference. It will be ok.
Hand Grenade: An IRB renewal deadline; grant application deadline; comps defense date. If we miss these, it can majorly derail things and set back progress for months (or even longer).

As a mentor, I hope to help you with learning which priorities fall in which category, but part of your professional development is learning where your own priorities lie.

4. Authorship & Publication Standards

Authorship in this lab is based on providing significant contributions to the research process, the drafting of the manuscript, or both.

I expect all students to begin working on first-author publications within their first year. By the end of Year One, your goal is to have:

1. **Propose Masters Project:** Milestones always come first! We want your proposal done by the end of your second semester, if at all possible.
2. **Separate Research Draft:** This should be a project distinct from your thesis that is either submitted or ready for peer review by the end of the year.

As you progress through the PhD program, I expect your autonomy and contribution level to increase. Because of this, I categorize first-authorship into three stages of growth:

Stage	Publication	Student Effort	Advisor Role
"Marginal"	1st Paper	**51–60%**	Heavy assistance with concepts, framing, stats, and drafting.
Intermediate	2nd & 3rd Paper	**60–65%**	Active mentoring with increasing student independence.
Autonomous	Later Papers	**75%+**	High independence: Advisor provides high-level senior review.

Co-Authorship Guidelines

- **Early Training:** I am intentionally generous with co-authorships for junior students. You will be invited to join papers with smaller contributions to help you familiarize yourself with the publication lifecycle.
- **Advanced Training:** As you gain experience, I expect you to make more substantive contributions to "earn" co-authorship on lab projects.
- **Internal Collaboration:** You are never obligated to include other lab members on your papers, but it is **extremely encouraged.** This fosters lab dynamics, lifelong professional collaborations, and friendships.
- **Required coauthors:** At times, there may be some mandatory coauthors on certain papers that a student is leading. For example, papers that are a product of a grant I wrote with other investigators will likely require their involvement as authors.

Senior Authorship

For all papers generated within our lab, I will serve as the **senior author** (last on the authorship list). This provides the institutional backing and stability for our research program while you build your first-author record. Most often, you will be the corresponding author on papers you write, unless there is a specific reason to list me (e.g., working proprietary data that only I have access to; specific invitations for me to write something that I cannot but a student can take the lead on).

External Collaborations

You are encouraged to collaborate with other labs at the University of New Mexico or other institutions. In some cases, I will coordinate these collaborations. However, in most cases, you will need to seek collaborations that make sense for you. We should discuss these potential collaborations together, and I can guide you in that process (please don’t initiate these without talking to me first!). Even so, learning how to build and maintain

these relationships is part of your development in the program. These opportunities are vital for networking and professional development; however, they must be managed according to the following priority list:

1. **Milestones:** Masters, Comps, and Dissertation.
2. **Lab-Specific Projects:** Your primary research obligations within our lab.
3. **External Collaborations:** Networking and outside projects.

Ultimately, as I have emphasized throughout the various lab documents, your top priority as a student should be completing the program. Graduation in a timely manner is the number 1 endpoint for graduate school! Second to that goal is advancing your own program of research within the lab. As I've mentioned at various other places, I really want to see you develop your ideas and passions, and I highly encourage that development. This development is key to your development as a professional in our field, and it is my belief that you should be developing in this way alongside your lab mates and under my mentorship. However, part of this development is building your own networks and collaborations! As long as your milestones are being met in a timely fashion and you are working productively in our lab, I will always encourage you to build new relationships, collaborations, and interests. Managing all these competing priorities is an absolutely essential skill for being a professional in our field, and learning to do that now is key.
To ensure you move through the clinical science program efficiently, always prioritize your work in this order:

Milestones > Lab Research > External Networking

If you feel that your workload is becoming unmanageable or that external projects are interfering with your milestones, we need to have an honest conversation immediately to recalibrate.

5. Research Project Flow

The process of scientific research and publishing is complicated, messy, and often anxiety-causing. Students are often overwhelmed by the prospect of coming up with ideas and turning those ideas into scientific output. This is normal! Research is not as hard as many people fear that it is, but it is a difficult process at times. Because of that, I think having clear expectations for how to approach research is often quite helpful, even though individual projects might vary on a case-by-case basis.

Phase 1: Idea to Project

- **The In-Person Discussion:** Every new project must begin with an in-person conversation before any data collection, analysis, or "official" research begins.
- **The Elevator Pitch:** Most projects start as a dialogue between lab members and myself, which then moves into a "Letter to Grandma." You must be able to boil the essential ideas down into plain language that a layperson or investor could understand.
- **The Conceptual Threshold:** If you can clearly explain the "why" and "how" of your idea to your grandmother, you have a sufficient grasp of the concept to turn it into a formal research plan.
- **Working Plan Approval:** Research begins only after we have agreed upon a clear, actionable working plan for the project.

Phase 2: Statistical Planning & Transparency

- **Archival & Collected Data:** For projects involving existing data sets, we move immediately into meticulous statistical planning.
- **Transparency First:** All analyses must be planned beforehand with an emphasis on transparency and accurate reporting.
- **Reproducible Code:** I prefer all analyses to be saved in a "code" format—either R Statistical Software scripts or SPSS syntax files. This ensures our work is reproducible and verifiable.

Phase 3: Execution & "Doing the Work" Together

- **Collaborative Analysis:** Once initial analyses are run, we must meet to discuss the results. This is the primary example of "doing the work" together in our individual meetings rather than just talking about it.
- **Accuracy Check:** While you are encouraged to run analyses before our meeting, we will work through the final analyses together to ensure accuracy and coherence before moving further.

Phase 4: Writing

- **Pre-Analysis Sections:** Your "Present Study" and "Analyses" sections must be set *before* we finalize analyses. I expect the analyses to change during our work together in Phases 2-3, but, before writing the paper, we need them finalized.
- **The Drafting Sequence:** My preferred workflow is to write the **Present Study-Method-Analyses-Results** first, followed by the **Discussion**, and finally the **Introduction**. While your personal workflow may differ, the data-centric sections must be established early.
- **Delegation:** On multi-author papers, sections may be delegated to other authors, but the first author maintains the primary responsibility for the narrative arc.

Phase 5: Feedback & Finalization

- **Internal Peer Review:** Before sending a draft to me, you are highly encouraged to seek feedback from other lab members that you anticipate being coauthors. You will learn immensely from your lab mates. Obviously, if it's a paper that you are just writing with me (no other co-authors) move on to the next step.
- **Advisor Commentary:** Once a draft is complete, send it to me for overall commentary and feedback.
- **Co-Author Circulation:** After the first author and I are satisfied with the draft, we will circulate it to the other co-authors and begin the formal publication process.

Open Science & Reproducibility

Our lab prioritizes high standards for scientific transparency. As part of our commitment to clinical science, we utilize Open Science practices to ensure our findings are verifiable and accessible to the broader research community.

At the time of submission for peer review, students are expected to create a dedicated project page on **OSF.io**. This page serves as the public record for the study and must include:

- **Study Ambitions:** A clear outline of the project goals, specific hypotheses, and the analytic plan.
- **Analytic Code:** The final, reproducible scripts (R code or SPSS syntax) used to generate the results.
- **De-identified Dataset:** A restricted version of the dataset that includes only the specific variables utilized in the analytic code to protect participant privacy while allowing for verification.

Ethical Use of Generative AI

Generative AI is a double-edged sword: it is immensely useful for facilitating research, but it cannot do our research for us. In this lab, we view AI as a high-powered assistant, not a collaborator or a co-author. This section establishes our lab's policy on the use of Large Language Models (LLMs) and other generative AI tools. While these tools can significantly accelerate the "nuts and bolts" of research, they are not a substitute for your unique intellectual contribution to the field, nor should they be used to avoid the "hard" or "tedious" aspects of your training. Many of the hard and tedious things you will be asked to do over the course of your graduate career are hard and tedious because it is the struggle that teaches you how to do them well. Even so, there are times that AI can be useful without compromising training.

Encouraged Uses:

I encourage you to use LLMs for the technical, non-creative and non-generative aspects of your workflow, with the caveat that you must verify and check any and all output from AI. **You cannot trust AI output implicitly, and you must check all aspects of it**. With this in mind, here are some examples of recommended uses are:

- **Troubleshooting:** Identifying errors in your data analysis scripts or getting help with complex data-cleaning tasks. I have spent more hours than I care to count trying to figure out why an R code for a specific analysis will not run, only to find it was due to misplaced commas or quotation marks. AI models can typically find these errors within seconds.
- **Busy work:** LLMs are great at speeding up busy work. Checking over IRB protocols for consistency across documents, making sure that grant applications are consistent and in line with guidelines, and making sure that articles are formatted correctly for journal submissions (especially references) are all major time sucks that LLMs can assist with.
- **Proofreading:** Using tools to check for grammar, punctuation, and typographical errors in a document you have already written. Please note this only applies to error checking, not flow or clarity.

Allowed Uses:

There are several activities that AI *can* help with but should be approached with caution. The fact that AI *can* help with some things does not mean that you *should* use it. In all cases in which AI is used, any output must be manually checked at a line-by-line level. No output from AI should ever be trusted without verification that you are capable of conducting. Below I describe some use cases that are permissible, given the right context. However, if any of these specific examples occur, it is essential that this is transparently documented in any research output that results. For example, if you use AI to generate code for an analysis for a paper, you must document that in analysis plans and resulting research outputs.

Statistical Coding:

AI can generate code for almost any type of analysis that has been previously posted or written about on the internet. I am generally ok with students using AI to generate statistical code, provided that some key criteria are met.

- AI should **never** be used to generate code for analyses you have no expertise in. Fundamentally, you should not be conducting analyses that you do not yourself understand. A guiding principle of using AI in any research flow is that you are able to verify all aspects of the output. This is not possible if you do not understand the analyses that you are generating.
- AI should **never** be used to generate code that you could not generate yourself. Building on the above, only using AI for analyses you already understand is an important first step, but you should also not be using AI to generate code that you could not have written yourself. Again, returning to the principle of being able to verify all AI outputs: if you do not know how to write the code, you will not know if the code generated by AI is correct.
- AI should **never** be used to generate code for analyses for coursework without explicit permission to do so from the instructor.
- AI should **never** be used to generate code for analyses for milestone projects without clear permission from your committee to do so.
- Any use of AI to generate code that is used in publications **must** document this clearly in the OSF files shared for the project and in the journal submission process.

Presentation/Formatting of Results:

The process of converting R or SPSS output into an APA compliant table is often both time consuming and, frankly, arbitrary. AI and LLMs are quite good at taking output from R scripts, SPSS analyses, and various other statistical outputs and formatting them in novel tables that are either in APA style or much closer than raw output. This use can save hours of tedious copy/paste sessions. Having said the above, AIs/LLMs do often make

transcription errors. Checking all details and values of an AI-generated table is a **mandatory** part of the process of using AI in this way.

Proofreading for Flow and Cohesion:

There are times that you may find that you are unsatisfied with how your writing is coming together or how you have constructed certain sections of something you are working on. In such situations, it is possible that the use of AI can be useful. However, of all activities in this section, **this is the one I most discourage**. Learning to write well is part of the process of becoming a scientist. Accordingly, using AI to make your writing "sound better," robs you of important learning experiences. Through careful prompts, you can get feedback from AI/LLMs that help you learn to write better yourself. However, in their natural states, AI models will most often simply tell you how to make the writing "better" based on the model's training data. Again, using AI to make your writing better, rather than using them to learn to write better, will rob you of one of the most important lessons you can learn in your graduate training.

Prohibited Uses:

To maintain the integrity of your training and the originality of our science, the use of AI is prohibited or strictly discouraged for the creative and foundational aspects of research:

- **Idea Generation:** Developing the central concepts, hypotheses, or research designs.
- **Writing:** Drafting original sections of your manuscripts, theses, or dissertations.
- **Project Planning:** Mapping out the logic, scope, or sequence of your research projects.
- **Creative Aspects:** Any part of the research process that requires human insight, theoretical nuance, or clinical expertise.
- **Protected Health Information:** LLM/AIs are not secure and uploading PHI to them is a direct violation of HIPAA. There are severe consequences for using it in this manner.
- **Participant Data:** Though uploading identifiable participant data is not likely to violate HIPAA in many cases, it is a violation of data safety and security protocols that we attest we will use in all IRBs. If there are ever circumstances where any data needs to be uploaded to an LLM, we must work together, as a lab, to ensure that all of it is entirely anonymous.

The goal of your PhD training is for you to develop a unique professional identity. If an AI generates your ideas, writes your prose, does your analyses, or designs your studies, you are not developing the very skills that will make you a "Doctor" at the end of this journey. Use AI to help, as needed, but you cannot use it to do the work for you. Using AI to write papers or perform key aspects of your role as a student and developing scientist will both decrement your training and may lead to serious consequences (e.g., using AI to write a milestone paper like your masters or comps **will** **likely** result in expulsion from the program).

6. Grants/Funding/Fellowships

Students are highly encouraged to pursue independent sources of funding for various aspects of their graduate training. In practice, this might mean applying for fellowships to support your stipend and tuition (instead of relying on teaching assistantships or research assistantships on one of my grants) or applying for project specific grants.

Students in our lab have successfully received stipend/tuition-focused fellowships from the CASAA T32 predoctoral training fellowship, the Responsible Online Gaming Association, and the Sandia Fellowship for

Gambling Studies. Many of these opportunities (e.g., CASAA T32 and Sandia Fellowship) are ongoing opportunities that students will likely be eligible for after their first year.

The clinical science program at UNM, particularly among students affiliated with CASAA, has a strong track record in obtaining F awards via NIAAA and NIDA (F30, F31, F32), as well as R36 awards (dissertation grants) from these institutes. These types of awards are inherently focused on substance use research (rather than pure behavioral addiction work). However, students, in developing their own career ambitions and interests, are highly encouraged to seek to do research at the intersection of behavioral addiction and substance use. This is also applicable for the T32 opportunity through CASAA as well. In each of these cases, competitive applications will involve a research program that strongly focuses on substances (often alcohol) though they may also incorporate behavioral addictions or examine these things alongside of behavioral addictions.

Processes for these applications are widely variable, and many options exist beyond what is listed here.

7. Conference Participation & Travel

This section outlines how we approach professional meetings and the expectations for your conduct while representing our lab. Conferences are essential for your growth as a clinical scientist, providing a key venue for networking and disseminating your work.

Expectations & Frequency

Conference presentations—including posters, paper presentations, and symposia—are an expected part of your training. I aim to provide students the opportunity to attend and present at a few conferences each year.

Purpose

It is important to remember the purpose of these presentations:

- **A Step, Not the Destination:** No project's end goal is a conference presentation. The ultimate objective is always a peer-reviewed publication. If you are presenting on a topic, I expect a paper to come out of that work at some point.
- **The Workflow:** Use conferences as a tool to sharpen your ideas, gather feedback, and move a project closer to submission for peer review.
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Funding

Most often, I work to find ways to fund student travel to conferences, particularly early in their graduate school careers. This funding may come from grants or discretionary funds that I have available. Even so, this funding is limited and variable. In a given year, it is difficult for me to allocate more than about $2,000 for travel per student from my discretionary funds, and, in some cases, it may be less. Grant sponsored travel can be more robust, but it is variable and depends on availability. Due to these factors, I strongly encourage the following:

1. **Cost saving measures**: Students are expected to minimize costs as much as possible. There are several ways this may be accomplished, but general recommendations are as follows:
    a. Plan on rooming with colleagues! Hotels are often the most expensive part of conference travel. Sharing a room with one or two other students will greatly reduce this cost.
    b. Consider hotels close to the conference center that aren't "official" conference hotels. Please never choose a hotel that is inconvenient, unsafe, unsanitary, or poorly reviewed. But, if a conference is at the Hilton in a city and the rooms are $300 a night, and one block away is the Holiday Inn with rooms for $160 a night, take the cheaper option! I still do this when I travel to most cities.

   c. Plan on economical airline options. I don't necessarily expect you to always book flights with Spirit Airlines or some other super-budget option; but, Southwest and Frontier are most often cheaper than Delta, and choosing affordable options is wise.
   d. Talk to me about your conference travel plans **before** you finalize anything. I may have thoughts/ideas on how to stretch funds.
   e. <u>PLEASE DO NOT SPEND YOUR OWN MONEY ON A CONFERENCE UNTIL WE HAVE EXHAUSTED ALL OTHER OPTIONS.</u>
2. **Seek out funding for yourself**! The department can provide some travel support; the university also has some options (e.g., the GPSA). Additionally, lots of societies and conferences have travel grants as well. For example, the ICRG student travel grant is a great option for supporting travel related to gambling research.

Networking & Relationship Building

Establishing relationships in the field is a core benefit of travel. These connections often lead to future collaborations and career opportunities.

1. **Direct Introductions:** I will bring you to conferences and introduce you to key figures I believe are important for your professional development.
2. **Proactive Networking:** I encourage you to identify who *you* want to meet. Let me know ahead of time, and I will do my best to facilitate an introduction. Some students feel comfortable introducing themselves to folks, but I completely understand if you want me to make that happen and I am more than happy to do it.
3. **Navigating Independence:** While I will introduce you to many people, you will also spend significant time on your own or with your lab mates. For example, during a poster session, I am certainly likely to spend some time with you at your posters, but I will also spend substantial periods of time away from the poster looking at other people's work or networking with friends and colleagues. The same is true of receptions and happy hours at conferences. I am certainly going to spend some time with you, but you will spend parts of that time without me by your side as well. My time is often in high demand at conferences, and I may not always be able to include you in plans that I have made, though I will try when I am able. Part of your development is learning to be comfortable in these environments. This can be a bit intimidating sometimes, but making these connections as your own person and not just as "Josh's student" is immensely important for your development.

Professional Comportment & Social Awareness

Whenever you are traveling for a conference, you are a representative of yourself, our lab, our clinical science program, and me as your mentor. I do not say this to be critical or restricting, but, at times, I have seen people (both in our lab and in other labs) make critical errors in professional comportment at conferences in ways that have long-term consequences for their professional reputation. I want you to enjoy these trips and have fun, but you must remain socially aware. In any setting where other conference attendees might be present, your behavior should be thoughtful. Having fun is expected (seriously, I have photos of the lab drinking at a tiki bar at a conference hanging in my office), but we also need to ensure that how we present ourselves at conferences is not harmful to any of our reputations.

8. Lab Meetings & Collaborative Culture

Our lab meetings occur bi-weekly on Fridays, following the colloquium or clinical case conferences.

- **Priority Management:** While these meetings are not "mandatory" in a strict sense, they are highly encouraged.

- **The Trade-off:** Scheduling other obligations during this time communicates that those tasks are a higher priority than the lab community. While there are times this is necessary, be aware of the message it sends to your mentor and peers.

In our lab, students are the primary drivers of what is accomplished during meeting times.

- **Active Learning:** We use this time to update each other on projects, discuss trends in the field, and learn from one another.
- **"Doing" vs. "Talking":** Consistent with our individual meeting philosophy, lab meetings are more productive when we "do the work" together—such as watching a peer analyze data, write, or wrestle with a specific research challenge.
- **Presentation Planning:** Because your projects are often unique and not duplicative of my own research, we frequently dedicate meeting time to focus deeply on one student's specific plans or problems. You should plan to present and discuss issues related to your research throughout each semester.

Occasionally, we will pivot to large, lab-based group projects. During these phases, we will use our meeting time to delve collaboratively into these shared initiatives.

9. Undergraduate Involvement

Research experience is a vital resource for undergraduate students, and our lab aims to provide that opportunity through a collaborative, tiered mentoring structure.

Because I am both busy and easily distracted, I prioritize my limited mentoring time for my graduate students. Consequently, I am often unable to provide direct, project-level supervision to undergraduate RAs. I do interact with them in lab meetings and will gladly provide strong letters of recommendations for the ones that have done well in our lab, but I am unable to have regular individual meetings or supervise project involvement for these students.

To bridge this gap, I encourage you to involve undergraduate RAs in the research process. In this model, you serve as the primary mentor for these students, guiding them through the tasks and challenges of the research lifecycle. Mentoring is not "extra" work; it is a core part of your professional development. By supervising RAs, you learn the leadership and management skills required of a junior scholar and future Principal Investigator. This approach ensures that undergraduate students receive the guidance they need to develop their skills, while you gain high-level experience in personnel management and project supervision. Part of being in this graduate program is learning the art of mentoring. I expect you to treat undergraduate RAs with the same respect and investment I offer you—as junior colleagues in training. The level of undergraduate involvement in your research is variable and will depend on your preferences, the project nature, and undergraduate availability. But, being involved with this process is important (and, in some cases, it can be fun!).

10. Speed Bumps/Roadblocks/Collisions

Although I can genuinely say that it is generally quite rare that there are serious conflicts or disagreements in the lab or in mentor/mentee relationships (i.e., my relationship with students), these things do occasionally happen. This section deals with how we address these issues. <u>The first and most central guiding principle to dealing with any conflict is open, honest, and frank communication</u>. In my experience, serious conflicts most often start as minor points of tension or disagreement that are not communicated about until they dramatically expand.

Student Concerns with Me/My Style

As an advisor, I strive to be receptive and responsive to concerns and critical feedback. If there is something about the way I am approaching mentorship, research projects, or things in the lab that you find concerning, please let me know before it becomes a major point of tension. I cannot address your concerns or complaints if I don't know what they are. In most cases, I am able to make adjustments or changes. There are times that I may not be able fully adjust to match what your preferences are. However, if I cannot make those adjustments, I will do my best to fully explain myself and my decisions to you.

It is important to me that I do not learn about your concerns or complaints with me from someone else. Part of a healthy working relationship is transparency, and if I am first learning of your concerns or complaints from another person, that means there has been a breakdown in the communication in our relationship and likely indicates a deeper problem than a single complaint.

Student Concerns with Each Other

In any diverse workplace environment, conflicts between colleagues are inevitable. I have personally never worked in any setting for which this is not true. By extension, the same is true of our lab. Though we strive for a positive, collaborative culture, conflicts between students may arise. Returning to the central principle of open communication, I expect students to clearly communicate their concerns with each other to each other as a first resort. We are all professional adults, and clearly communicating tension points is a part of professional comportment and development. Most often, I prefer not to directly intervene in these types of conflicts, unless absolutely necessary. Again, conflict resolution is an essential professional development skill, and, throughout your career, there will not always or even often be a supervisor that can intervene in conflicts like this. Having said this, if conflicts seem intractable or persistent, please communicate to me what is occurring. Depending on the situation, I am willing to facilitate conflict resolution measures or at least provide recommendations.

My Feedback to Students

Although our program has structured feedback processes (e.g., end-of-year meetings), I firmly believe that formal feedback processes should not provide novel information. What this means is that I will strive to let you know if I have concerns or constructive criticism in real time as we are working together. If I have concerns about your performance in any regard, I will let you know. The logical extension of this is that, if I am not telling you that I have concerns or critiques, then you are doing fine! I tend to be somewhat restricted in my feedback style in general, which means I might not regularly let you know that you are doing great. Please know that, if I'm not regularly letting you know about concerns or critiques, then that means I think you are doing exactly what you need to be doing at this stage. Do not interpret my more laid-back approach to feedback as a negative.