Undergraduate student expectations

July 2025

Adapted from Dr. Danielle Benoit's lab manual and training materials from the MIT Research Mentoring Program.
(Direct mentorship by Dr. Wan version)

As an undergraduate trainee in the lab, you are expected to:

- **Commit to working in the lab for at least one year.** Longer-term involvement is strongly encouraged, especially if you aim to pursue a first-author publication or obtain a strong recommendation letter for your next career step.
- **Discuss and document your training expectations with me.** This document should be revisited and evaluated at the beginning of each semester. See template here.
- **Work closely with me and your fellow undergraduates.** Each semester, I will recruit three undergraduates simultaneously and train you as a cohort. You will collaborate as a group during the initial 2–3 weeks to learn basic experimental skills, get familiar with lab protocols, and understand ongoing projects.
- **Once you demonstrate independence,** you will be encouraged to choose which project(s) you'd like to contribute to. Ideally, you will take the lead on one project.
- **Participate in one-on-one progress meetings with me.** See more in the *Our Values* section on the lab website.
- **Prioritize your academic performance.** It's understandable that you'll need time to prepare for exams. Please notify me (or your assigned mentor) via email at least two weeks in advance if you foresee needing time away from the lab to ensure smooth progress on your project.
- **Contribute to 1–2 projects.** You are expected to generate enough data to merit co-authorship on one or more peer-reviewed publications. While it is challenging to publish a first-author article during a short training period, extended training is encouraged. You may also consider continuing your graduate studies in our lab, which could shorten your graduation timeline. Please consult with the graduate school office for more details.
- **Collaborate on a review article.** The three undergraduates recruited together will co-author a short to mid-length review article during the first year. The topic, writing

plan, and authorship will be determined in advance and are subject to change based on contributions.

- **Apply for undergraduate research funding.** Funding resources are listed here: MTU Undergraduate Research Opportunities.
- **Present your research.** Once you have sufficient data, you will be encouraged to present at local seminars at Michigan Tech. If you publish a first-author research article, the lab will support your attendance at a national conference.
- **Outstanding performance may be rewarded with paid support.**

Common expectations for all lab members:

- Always follow our lab values and lab handbook.
- Cultivate your curiosity and creativity. Select a research topic that excites you and will lead you to new knowledge. If you're funded by a particular project, your work will be closely associated with that project.
- Conduct your teaching and research with openness and integrity.
- Take training in EHS, lab rule, assays, etc., seriously and as soon as appropriate.
- Represent the lab with pride and show respect for others. You are now an ambassador for the lab as well as a member. How you interact with our colleagues will shape our reputation.
- Actively participate in all laboratory group functions (group meeting, subgroup meetings, seminars); this means paying attention, asking questions, offering feedback, and using phones and computers only for work that is directly related to the meeting at hand.
    - Attend Seminars. There are both in person and virtual seminars available. It's a great resource to expand your knowledge and get new ideas.
- Maintain and treat all lab equipment and lab space with care; if we are running low on a necessary supply, if software licenses are set to expire, if computers need updating, etc., alert me or the one who is responsible for lab ordering/management.
- Review the literature. Read all the literature I suggest and a boatload more! Learn to use google scholar (and set google scholar alerts!), Elicit, PubMed, Web of Science, Scopus. Read outside of your discipline (Science/Nature are good places to start) to get some perspective and maybe new ideas too.
- Manage research challenges. Perform research! Plan experiments well, don't forget about necessary controls, keep good notebooks, and record everything! Make sure

these experimental outcomes would be acceptable figures/tables/data for a publication!
    - Sit down and carefully think about the solution yourself
    - Look for answers in the literature
    - Solicit advice from your lab mates
    - Please seek advice from the PI; I am always happy to discuss issues, but it is in all of our best interest if you work on the problem yourself first.
    - If we're still struggling, we'll go outside of the lab for advice (e.g., to collaborators or colleagues), but please talk to the PI about this first.
- Share your expertise, experience, and materials with others in the lab. There are significant rewards for being generous with your time and knowledge.
- MS Office/Endnote/Prism/Biorender/Zotero/Adobe Illustrator software will be used for writing, figure making, statistical analysis, etc. Learn them now and it will save you lots of time!
- Back up data: Google drive and physical hard drive.
- Get/keep a life! Something that took me some time to learn. Get a hobby, love someone, be passionate about things other than research. A must in this equation is a balance – to keep yourself sane and give your brain time to process experiments and come up with innovative ideas and ways to circumvent problems you're having.
- Exercise and eat right. It does your body and mind good and is worth the time in rewards.