

Weiss-Lehman Lab Expectations And Guidelines

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A Note on Lab Culture

This document is intended to provide many specific insights into lab expectations in a variety of areas for postdocs, graduate students, and undergraduate students. *However, the most important expectation I have for all lab members, myself included, is to contribute to maintaining an equitable, inclusive environment in which everyone feels supported and valued.* Individually and as a group, we will continue to educate ourselves on issues related to diversity, equity, inclusion, and justice in STEM. I will continually work to foster open, direct communication with all lab members and ensure I am available and receptive for feedback. As such, this document will be regularly revisited and updated with input from current lab members to ensure it fully reflects the needs and expectations of everyone.

Navigating this document

Not all the details listed in this document will be relevant to every lab member. To make it easier to scan, I will use the abbreviations below to indicate for whom each point is relevant.

P: Postdoctoral researcher

G: Graduate student (both Master's and PhD)

U: Undergraduate student

Using these abbreviations, I have broken up the rest of the document into different sections. Each section begins with a brief description followed by a list of expectations and guidelines for postdocs, graduate students, and undergraduate students.

Working Style

Research in the lab spans many areas from data collection and experimental microcosms, data analysis and model development, theoretical modeling, writing up results, and reading the literature. Individuals will have different approaches and strategies that work best for them when performing these various tasks. For example, I prefer to work 9-5 from my office on campus, but others might work best from home or at different hours. Thus, I generally expect that lab members will find the combination of location and hours that works best for them to accomplish their work each week. The one exception is when working with the beetle microcosms, which require additional protocols (see **Beetle Lab** below). To help everyone find the work habits that work best for them, below are some key expectations and procedures for everyone.

PG Plan to work 40 hours each week, but location and timing are flexible

U Hours and schedules will be discussed at the time of hiring (typically ~ 10 hours per week)

PG Plan for regular (weekly) one-on-one meetings during the academic year and less frequent but still regular meetings in the summer

U I will also meet regularly with undergraduates pursuing independent research projects

P These can be adjusted to every other week if that is better for your working style

PGU Create a Google document to share with me for jointly recording meeting notes

PG We will meet at the beginning of each semester and the summer (i.e., in August/September, January, and May) to complete/update an Individual Development Plan

U Any undergraduate working on independent research project will also complete an IDP

PGU I will strive to give timely feedback on manuscripts, code, presentations, etc., but please plan give me at least a week unless we have previously discussed otherwise. I will also let you know if, for any reason, I will require more than a week to give feedback

PGU I am always happy to write letters of recommendation, but please let me know at least two weeks before the deadline and provide information on the position, a current resume/CV, and if there is anything that you would particularly like me to address in my letter

Beetle Lab

Timing and precision are very important for any experimental system, and the beetle microcosms are no exception. This extends beyond just individual work in the lab to clear communication and coordination with other lab members. For example, the timing of events on Tuesday dictates the timing of Wednesday's procedures, so if different people are working each day it is critical to ensure everyone is on the same page. As such, the expectations below are intended to provide a framework to maintain experimental rigor for the lab while allowing for individual flexibility.

PGU Use the shared Google calendar to record expected periods of absence (e.g., trips, busy weeks, etc.) and proactively communicate about periods when multiple people may be gone

PGU Some time periods will typically involve many people making overlapping plans (i.e., Thanksgiving break, winter break, and spring break), so we will discuss these periods as a group in advance to make sure (1) enough people will be in Laramie to maintain the beetle experiments and (2) individual needs are met and popular vacation times are equitably distributed among lab members

U During busy periods with the beetles, we will use the Google calendar to create a more granular (e.g., hourly) weekly schedule

PGU We will meet weekly to discuss the previous week and make sure we are prepared for the next week (Fridays at noon)

PGU Treat all lab equipment with care and respect and leave the lab clean and organized for the next person to use it

Departmental Seminars

Many departments on campus (including Botany) host research seminars with visiting speakers. Going forward, these will likely be a mix of in-person seminars and virtual talks, but either way they can be incredibly beneficial. For one thing, they can obviously be very interesting and fun when the topic is closely related to your own research. However, even when the presentations seem quite different to your own interests, they can still be very helpful for many reasons. First, it's important to think broadly about our science and presentations outside of your topic area can help in this regard, just like reading the literature broadly is important. Second, giving effective presentations is a valuable and difficult skill for scientists and seeing many examples of different presentation styles can help you figure out what things you like and don't like about different styles. Finally, different labs host each of these speakers, so it can be useful to get to know our local community better by understanding what type of research they find interesting enough to host for seminar. Given the importance of these seminars, I have a few expectations for lab members regarding attendance and participation.

- PG** Attend departmental seminars each week with a focus on Botany Department seminars, but others are encouraged too
- U** Don't feel obligated to attend these seminars, but you are more than welcome to if you are interested in the material or want to be exposed to more research
- PG** Meet with at least two seminar speakers each semester. These are great networking opportunities and a chance to practice explaining your research to others
- PG** Take turns helping to host the seminar speakers for our lab
 - PG** We will all work to create and maintain a pool of potential speakers with broad interest to our lab
 - PG** For an individual's turn, they will select a speaker from the pool and work with me to invite and host that speaker

Weekly Lab Meetings

During the academic year and sometimes in the summer, we will regularly meet as a full lab group to hear about each other's research, discuss papers, work on professional development, collaborate on group projects, etc. These are intended to be flexible formats which can be adjusted to meet our collective needs each semester. The items below are a framework for us to work within for these meetings.

- PGU** Meetings will be weekly during the semester and as needed in the summer
 - PG** Present on current research at least once per semester
- PGU** We will collectively decide how to spend our other meetings each semester when we make the schedule

U Attendance at lab meetings is encouraged but not required. You will not be required to present on research or lead paper discussions unless you would like to

PGU If you'd like to use lab meeting to get feedback on a manuscript or do a code review, please send the material to everyone a week ahead of time

PGU Similarly, if you are leading a paper discussion for lab meeting, please send the paper out to everyone a week in advance

Open And Reproducible Science

Open and reproducible science is crucial to scientific progress and global equity in research. As such, all research coming out of the lab should be published along with all relevant data and code in open access formats whenever possible. Below are expectations for workflows within the lab to help facilitate code and data sharing within and outside the lab.

PGU All research projects in the lab should have a corresponding repository on Github for backup, version control, and collaboration

PGU All modeling and simulation projects are encouraged to engage with regular code reviews (i.e., asking other lab members or myself to look through and test the code for potential errors)

PGU Such code reviews can be difficult and time consuming, so asking different people, reciprocating, and offering co-authorship when appropriate will be important

PGU In addition to Github, all critical data should be independently backed up in another location (e.g., Teton, One Drive, Dropbox, or an external hard drive)