Expectations for research students

When joining a research laboratory, it is important to develop good work ethics as early as possible and maintain them. It is good to keep in mind that the work ethics portrayed in the research settings will heavily influence any recommendations you may want to ask your advisor for later on in your career. Here follow first the primary expectations that I (Benjamín) have for my research students, followed by other general recommendations for what makes for good impressions.

Primary expectations from Benjamín

1. **Safe work practices** – safety comes first! Researchers are expected to emphasize safety in all of their work and wear proper PPE whenever working in lab (safety glasses, lab coat, and most of the time gloves as well). This also means familiarizing yourself with other safety equipment, considering potential hazards in your experiments and notifying your co-workers about any significant hazards in your experiments that might affect them. You should also not hesitate to point out hazards that you might observe elsewhere in lab, and we should also appreciate that type of feedback, keeping all of our safety in mind. When there are overnight reactions, also make sure to write and make accessible all relevant information about the reaction if anything comes up when you are not around.
2. **Semi-monthly reports** – to help keep track of the work progress, researchers are asked to e-mail Ben a report about their work on the 1st and 16th of every month (or the closest weekday). These reports should include information about what experiments have been run, including a ChemDraw sketch of all reactions. This also helps when it comes to writing up the results for your thesis or other reports later on, that you will already have finished some of the work. It may also be helpful to use the time when writing these reports to draft the experimental procedure text for the relevant experiments to help keep track of those.
3. **Working hours** – while the academic world provides some flexibility in terms of *when* we do the work, it is still important that we do all of the work expected in a timely manner, whether we do them within regular working hours or make-up the work in the evenings or weekends. It is therefore recommended to try to maintain regular working hours. For safety reasons, it is also important that experiments be performed during regular working hours (between 8am and 6pm on weekdays) although certain

exceptions may arise. It is also important to never work in lab unless someone else is in the building in an easy calling distance. In general the work expectations for the different categories of researchers is as follows:

a. **Ph.D. students** – the general requirement for graduation is at least 3 peer-reviewed publications, of which 2 should be accepted. While working towards those publications, it is advised that Ph.D. students work
b. **M.Sc. students** – there is not a publication requirement for master‘s students, so the work expectation is more related to the number of credits. ECTS credits are normally considered to be equivalent to 25-30 hours of work. Each 30 ECTS is therefore the equivalent of a full semester‘s worth of full work (including through the exam period).
c. **B.Sc. thesis students** – since undergraduate thesis are generally 15 ECTS, it is the equivalent of about 2-3 days of work throughout a single semester. There is flexibility in how the work is distributed throughout the semester but a good reference is to think of it as a 2 and a half day‘s worth of work on average throughout the semester.
d. **Summer researchers** – for summer research projects, it is generally expected to be considered full work during the contract period.

4. **Group meetings** – the goal is to establish regular group meetings and researchers will be expected to give a literature presentation at those meetings about once a semester, and research presentations about 1-2x a semester.
    a. **Literature presentations** – for these presentations, you choose a topic of interest from the chemical literature to present for the group. The topic may be related to your research work, but doesn‘t have to be. The purpose of these meetings is to ensure you take some time to read papers from the literature, as that is important both for research work in general, and may be valuable for developing research projects in your future career.
    b. **Research presentations** – the purpose of these are to help you further hone your presentation skills through practice, and will also help you prepare slides in a timely manner for thesis defenses later on.
5. **Academic integrity** – This is a really important point and is therefore repeated here from the group values. But it is expected that results are always reported openly and accurately. Maintaining academic integrity is crucial for maintaining academic credibility and is therefore always expected of researchers when disclosing their results.

General recommendations for good impressions

- **Group values** – the group values portray some of my core values and therefore, putting those values into action is definitely a good impression point. One of the key items here that could maybe be mentioned again specifically is that for integrity, it is greatly appreciated when people follow through on what they say they will do, when they say they will do it, or if plans change that they are clearly communicated in a timely manner.
- **Cleanliness/neatness in lab** – this can be really important when working with others in lab, sharing glassware and lab space. We should try to maintain a clean and organized lab environment, both as it makes for a safer work environment, and also so that our co-workers don‘t have to wait on glassware from us or start cleaning up for us just to be able to set up their own reactions.
- **Independence/Initiative** – it is always impressive when people show good initiative and it is also great to show independence in lab. However, it is still totally fine to ask me questions about whatever, and especially safety. If you are unsure about something, it is often better to ask and be sure rather than not to ask in order to be more „independent“. A good approach to asking is to show that you have given the problem/question some thought before asking.
- **Helpfulness** – we all need to learn somehow and a spirit of helpfulness inside and outside of lab is always valued.
- **Punctuality** – it can always happen that we are occassionally late, but we should not make a habit of it. From my perspective, punctuality is about respecting one another‘s time, showing up when we had planned to show up or notifying people when we foresee that we will be late.
- **Clear and open communications** – Clear communications, both in writing and presentations is always valued. These are skills that we are also building As is mentioned in the group values, we do recognize that we are all imperfect and we make mistakes, and we also value forgiveness whenever needed and asked for. Sometimes we might also go through some rough spots and I (Benjamín) have definitely had my share of rough spots throughout my academic career. It is therefore valued when these things are communicated in an open manner. Those open communications can also allow for opportunities to find ways to better support one another.

This is a living document and might go through some updates as time goes by…