

Lab Policy for Members of the μ -Lab

Welcome, and congratulations on admission to the μ -Lab! Your unique path to this point is something to be proud of. By virtue of being admitted to the lab, you have proven yourself more than capable to take on the challenge of a graduate degree. Thank you for choosing to spend the next step of your journey with the μ -Lab.

The policy we ask all members of the lab to adhere to follows three core tenets:

Be kind. Have fun. Do good science.

By accepting a position in the lab, you are committing to upholding the spirit of these principles to the best of your ability. Any issues you may find with the lab policy should be raised with Prof Muise as early as possible in your program, so that the policy may be clarified and potentially refined.

Be kind.

1. *Embrace diversity.* The best ideas come from exploring a variety of sources. Strive to keep an open mind and welcome the diversity of voices our lab can collectively offer and help contribute to that diversity.
2. *Be a good citizen of our group, the lab, and the department.* Research is about teamwork. Support your team and be generous with your time/expertise as you are able. Conversely, ask for help when you need it and acknowledge this fully. Treat everyone with respect and expect the same in return.
3. *Be kind to yourself.* Graduate studies are not easy. There will inevitably be stressful times and periods where long hours are required. There is a baseline expectation that those stressful times do not become the norm. Take your evenings, weekends, and vacation, and take care of yourself. The norms for vacation timing can be found in the lab wiki.
4. *Help make the lab a place you want to be, and to be proud of.* There isn't an expectation you spend all your days at the office, but your time there should be enjoyable and energizing. Seize the opportunity to connect with your peers, take regular breaks, and help build a culture where students want to come together.

5. *You should expect to be given credit for your ideas.* Novel ideas is a form of currency in academia, and you should respect appropriate ownership here.
 - Echoing another's idea, and repeating it with proper attribution, is a way to ensure that person got credit.
 - Assuming ownership of another's idea is not OK
 - Correcting someone's claim to another's idea right away is helpful -- reinforces this expectation -- keep it quick and move on
 - If you're corrected, it doesn't make you a bad person. Everyone makes mistakes. Acknowledge the misstep and move forward.

Have fun.

1. *Embrace the freedom to learn.* There will be very few opportunities beyond your graduate studies to focus so exclusively on acquiring and contributing to advanced knowledge. Cherish the responsibility you have to learn material that so few have the expertise to understand. Some examples:
 - As time allows, sit in (audit) courses that may interest you.
 - Attend invited lectures (both local and remote).
 - Read papers. Constantly. It becomes easier, and more enjoyable.
 - Read text books. It's underrated. If you have a book you'd like to read, let Prof Muise know, and we'll have it added to the lab library.
 - If doing a Ph.D., consider doing a semester at another lab to learn.
2. *Engage with your community.* Be present. In many ways, your graduate career can be isolating. Strive to combat that, as it will help both your well-being and research simultaneously.
 - Work with your peers, as much as your research allows. Two researchers can write two papers together far better than two researchers working on their papers individually.
 - Join our shared discussion platform (e.g., Microsoft Teams) for the μ -Lab if you haven't already. We communicate regularly there.
 - Graduate research is a full-time job, but it is unique in that 9-5 daily may not be the most productive way for everyone to approach it. Aim to spend at least 3 days at a minimum in the lab during the week. If there's anything we can do to make it more comfortable, let us know!
 - We hold regular 1x1 and full-group meetings. These always work better when we're physically co-located. If there is a barrier to this (e.g., a global pandemic), we'll try our best to accommodate.

- All members are expected to make their best effort at attending the group meetings. There may be 1-3 times per week that we reserve for holding these regular meetings, and your time in the lab should overlap.
3. *Find a passion for your work.* When your passion for your research starts to wane, there are ways to address it. Sometimes this means pushing through the latest hurdle. Sometimes this means viewing the topic from a different angle. Sometimes this means pivoting the research entirely. No matter the case, be mindful of how you view your area of research. Ultimately, it should be something you find fun. Concretely, this should be a constant conversation that you have in your 1x1 meetings with Prof. Muise.

Do good science.

1. *Take ownership of your project.* You may work with others and be directed by senior members / PI's of the lab, but your project is ultimately your own. You should know more about your project than anyone else.
 - You should know the background required for your research. This will take time but is essential for you to be confident in your work.
 - All research has its weaknesses. Be transparent and thorough about them.
 - You will inevitably discover knowledge that no one else ever has. It is essential that you learn how to learn in order to get to this point.
 - While you will be the authority of your work, you should build an understanding of when to seek help. From group meetings, faculty, other groups, etc.
2. *Default to open.* Science moves faster if we're transparent, collaborative, and generous with what we know and what we've built. This should be reflected in how we conduct ourselves as much as possible.
 - By default, the last slide of every talk on published work should be a link to the code/data/etc. that was used in the research.
 - When considering project structure, reuse as many existing libraries as possible, and consider building yours so that others can use it.
 - Part of the legacy you leave will be in how others use your work.
 - There are exceptions to being open, such as NDA'd research grants, but these will be the exception.

3. *Learn how to lead.* Regardless of your career path, you will become an authority on your work and in all likelihood lead others. Should the opportunity arise, prepare for this by jumping on these opportunities:
 - Train/mentor newer students as you become experienced
 - TA a course at some point during your program, as time allows
 - Work directly with a 499/500/USRA undergraduate student

4. *Learn how to write technical papers and learn how to give technical talks.* Science is about communication. Knowledge discovered is wasted if not disseminated. For your own research, you will be the first author and responsible for writing the bulk of the content. You are responsible for the content you produce and should be comfortable defending what you present.
 - Every year, you should spearhead at least one paper to a major conference in the field of AI (e.g., IJCAI, AAI, ICAPS, NeurIPS, ICLR, ICML).
 - (PhD) At least 1-2 of your papers should be expanded to the level of a journal submission. These should be aimed at venues such as AIJ or JAIR.
 - You will have ample opportunity to practice presenting to the group and your peers -- use these opportunities to your advantage.
 - Focus on improving your writing, no matter what your comfort level. Queen's offers a range of resources to help out:
<https://sass.queensu.ca/onlineresource/topics/#WC>
 - Every published work should be communicated effectively in a medium other than the paper itself. This could be a slide deck, video, blog post, etc. In the modern era of academic communication, this is becoming essential. Good examples of this:
 - <https://astroautomata.com/paper/symbolic-neural-nets/>
 - <https://vsitzmann.github.io/siren/>

5. *Be organized, keep a good notebook, make things that work reliably.* Someday someone will take over your project and that person will need to be able to repeat or follow what you did. Keep this top of mind as you develop and document your work. Everyone in the lab (including Prof. Muise!) should be able to run your demos and do so with minimal overhead. Reproducibility checklists for research and code can be found here:
 - a. <https://ai.facebook.com/blog/how-the-ai-community-can-get-serious-about-reproducibility/>
 - b. <https://github.com/paperswithcode/releasing-research-code>

6. *Position yourself to get good letters of reference.* At this point, your GPA pales in comparison the references you obtain for your career. Any time that you present your work in front of the faculty (checkpoint meetings, seminars, etc.), you are demonstrating your potential as a researcher. Much of what they could say in a reference will be formed by these interactions.

7. *Be ethical and responsible in the work you do.* It's a position of power and responsibility to be discovering and communicating new science. Treat the entire endeavor with the respect it deserves. From the selection of projects and techniques to the reporting of your findings, you should bring an ethical eye to everything you do with the lab, and help others to do the same.

I, _____, hereby declare to uphold and abide by the Lab Policy to the best of my ability during my time with the μ -Lab.

Signature

Date