

Mentoring Philosophy - Patrick Holland - fall 2022

One of my main goals is to foster an environment in the research group where all group members support and mentor one another in various ways according to their capabilities and needs. We are a team, dependent on one another for our safety, support, and growth, and therefore must prioritize the needs of the group. At the same time, we are each striving toward achievement and taking ownership, which requires personal responsibility. This can cause a natural tension that we all negotiate through good communication.

I put a high value on feedback. For example, I have one-on-one meetings with students after they present group meetings to go over presentation style, research progress, and long-term goals; in addition, I encourage all students to discuss their Individual Development Plan and career goals with me at least once per year. Each New Year's, I give each student formal written feedback (typically 2 pages or so) on areas such as Lab Skills, Responsiveness, Curiosity, Presentations, Writing, Participation, Work Ethic, Teaching/Mentoring, Taking Charge of Project, Following Through on Plans, and Safety.

Feedback goes in the other direction too: each student fills out an annual survey, and the aggregated results give me feedback. The goal of this anonymous survey is to empower my students to help me improve the group policies and to correct my own behavior. We also have "safety moments" and group business at the beginning of group meetings, where people can suggest improvements in how the lab works. Constant improvement is a central principle that I hope my students incorporate into their approach to science (and life in general).

What students can expect from me:

- I will treat you with respect, and model professional behavior. I will follow all guidelines in Yale's [Guide to Advising Processes](#).
- I will be your advocate. If you have a problem, come and talk with me. I will do my best to help you solve it.
- I will provide mentoring, career advice and support (recommendation letters, etc.) throughout your career, including the time after you are in the group, with no exceptions.
- When it comes to your career choice, I will support you in whatever direction you want to go, and help you to find resources that maximize your opportunities.
- I will do my best to minimize unfairness and bias. (We all have implicit bias, and you can help me by calling out times that I exhibit bias.)
- I will not require you to do things that do not help your project, the group, or your professional development. Saying "no" to me is OK.
- I will respect your boundaries, and will not stick my nose in your personal life. If you do want personal advice, I'm happy to help, but only if you initiate it.
- I will recognize your contributions through co-authorship on papers where you have had intellectual input. I typically establish this by asking all contributors.
- I will provide guidance in research methods and strategies, and direction of your project. This guidance is typically very detailed at the beginning, and becomes less specific as time goes on, and I encourage more independence.

- I provide oral feedback in subgroup meetings, which occur every 2-3 weeks, and after your group meeting presentations (every 4 months or so). We also discuss your project 1-on-1 more frequently, at a pace of your preference.
- I provide written feedback once per year, as mentioned above. Other written feedback comes through emails, with a frequency depending on what's going on.
- I assign an in-lab mentor (senior grad student or postdoc) to beginning students, and/or facilitate the formation of a mentoring team when this is more effective.
- If you have questions, you can stop by my office or contact me via email. I will make time to respond to your needs as rapidly as possible.
- For very urgent matters, you can call me any time of the day or night and I will make time for you. For other priority issues, I will respond within 1 day. For drafts of papers or complicated issues, it might take up to a week. Please remind me if I let something slide by accident.
- I aim to support your growth, in terms of education, scientific independence, writing ability, and experiences. This will sometimes involve critiques that are tough, but I will treat you with respect (see above).
- I will provide feedback on papers, assignments, and presentations, and help you to set goals. Typically you decide upon these goals, with assistance from me.
- I will recognize your contributions through co-authorship on papers where you have had intellectual input. I typically establish this by asking all contributors.
- I will submit publications in a timely fashion, so that you get recognition for your efforts.
- I will recognize your contributions when I give talks on your research or write press releases. This continues after you are in our lab, because I support your continued career success.
- You are responsible for keeping track of the graduate school requirements, but I can help to interpret and give advice.
- With each qualifying exam or other degree requirement that is required to be your own work, I will provide feedback once during the writing process to help you.
- I lead a group meeting on ethics once per year.
- I will purchase supplies and equipment needed for your research progress, and facilitate your access to resources inside or outside Yale that are needed.
- I will strive to protect your physical safety in lab, through regular discussions of safety ("safety moments"), purchase of protective equipment, and seeking other resources.

What I expect from students:

- I am a relatively informal person, and it is ok to call me "Pat," and bring up any topic you like.
- You must treat others (in the group and elsewhere, at all levels) with respect. There is zero tolerance for harassment or physical/verbal hostility.
- You should show passion for your project. Dedication is demonstrated through "project ownership:" you should be driving your project, with me as "advisor" rather than "boss."
- You should strive to set and meet deadlines, as a way of managing and motivating your research progress. You should play the primary role in enforcing your progress; it is not acceptable if I have to be the one enforcing your productivity.
- You should be open to constructive criticism and advice. The feedback you get from me, your colleagues in the lab, and others is intended to improve your scientific work.

- All of us can feel overwhelmed at times; if so, let me know how I can help. I understand that life gets tough sometimes, and you can have the space you need for your mental health.
- You must not handle anything potentially hazardous in the lab without someone else around, and consult others about safety because you may not be able to identify all hazards.
- If you are sick or hurt, do not come in - take care of yourself!
- If you need help, please ask for it! It is ok to be uncertain.
- Though I am not more important than you, I have obligations to many students like you (and colleagues throughout the world) who also need me. Thus, I ask you to utilize my administrative assistant for things she can handle (e.g. changes to my schedule, getting reimbursements, or "red tape"), because that gives me more time to talk with you and others in the group!
- When you need something from me (e.g. recommendation letters, drafts of papers, please give them to me at least a week in advance, because I receive many such requests. Please do not assume I can give feedback within a day or two, especially when I am traveling. However, as noted above, when it's crucial I will be there for you.
- We have no fixed number of vacation days, because different students have different needs. In general, 2-3 weeks per year is reasonable. I ask that you be clear to me (and your labmates) when you will be away, by telling me ahead of time, by leaving an easy-to-interpret note on your desk, and by making sure that your group jobs will be covered in your absence.
- I have no fixed expectation of number of hours in lab. Students often want guidance though:
 - I do not have formal restraints on specific times to be in lab - do what works for you. However, (a) you must not handle anything potentially hazardous in the lab without someone else around, for safety reasons, and (b) you must have some time overlap in the offices with other group members and with me, to enable informal conversations that are an integral part of your development.
 - The point of your coming to a top research institution like Yale is that it gives you the opportunity to do excellent research. Take advantage of this opportunity to advance your career! In my experience, no one reaches an acceptable level of productivity without spending some evening and weekend time in lab.
 - Your mental health is important; it's important to pursue leisure activities that help you to recharge.
 - I will not ask about personal health information.
 - If you are sick or hurt, do not come in - take care of yourself!

Project

- You must be honest, and get the details right. Your lab records and lab notebooks must be complete and backed up, and you must follow [ethics standards](#).
- You need to take charge of your own project and your own career; I am here to help, but you have to accept responsibility for your own success and seek guidance and assistance everywhere you can find it. I will help you to identify these resources.
- You must keep up with the literature on your project - it is your responsibility. Also, do your part on the literature survey and turn in abstracts on time.
- You should have high standards in terms of purity and data analysis, and your project is dependent on this.

- You should keep me updated about research progress, to help me to promote your chemistry and to fulfill my obligations to funding agencies. Do not cancel meetings if you feel you have not made enough progress; these might be the most critical times to meet with a mentor.

In the Lab

- You must comply with safety regulations at all times, and look out for others' safety.
- Cleanliness is a part of safety and also respect for your labmates' time, and therefore you must pick up after yourself. If you see something amiss in the lab, pick it up, clean it up, or inform someone, but don't just let it go.
- Be respectful of lab equipment and maintain it carefully. This extends particularly to equipment that is shared with other groups, belongs to the department, or to collaborators.
- Group members should keep me informed about problems in the lab. If you break something expensive, tell me. Mistakes happen! It will help everyone if you admit it and we can get it repaired/replaced more quickly.
- Avoid haphazard construction of reaction/workup/measurement/sample prep setups. If the manipulation is likely to be done regularly, you will save time overall by making an intelligent, rational, reproducible setup and documenting it carefully in your notebook and/or elsewhere.
- Your time is worth a lot, so don't be shy about spending money on equipment/glassware that will make you more efficient and/or productive.

Group Interactions

- Be aware of what others are doing in the lab, and discuss your chemistry, their chemistry, and other topics with them. In these discussion, drawing is essential for clarity and for practicing your scientific skills.
- You must be an active participant in group meetings and seminars relevant to your research project. Take notes. Ask questions.
- All group members are assigned group jobs, which help the lab to work smoothly. You must put a priority on these items, because everyone is dependent on you.