

## Student Researcher Guidelines

University of Portland

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I am excited to have you working on a project with me! This document is intended to make sure that you are successful during your time working as a student researcher. Feel free to ask questions or let me know if you have any concerns. Communication is important so you have a good experience.

1. **Set scheduled work hours and stick to them.** We will establish a weekly work schedule during our first meeting. After that you are expected to adhere to the schedule. If you will be late or need to go to an appointment, please let me know via email. Nothing annoys a boss more than looking for you and not finding you. If you need to miss a block of time where you are scheduled to work, make a plan for how you will make up the hours over time. You will be able to work up to 8 hours per week during the school year, and 40 hours per week (for 10 weeks) in the summer.
2. **Attend group meetings.** Over the summer, we will meet for the daily SCRAP (Scrum for Research at Portland) as a group for 10-15 minutes. Everyone will say: (1) things they worked on since we last met, (2) things they plan to work on today, and (3) any hold ups or setbacks.
3. **Attend weekly individual meetings and prepare a short update.** In addition to group meetings, we will schedule a weekly recurring one-on-one meeting (30-60 minutes).
  - **Prepare a few PowerPoint or Google Slides** that summarize your update, with any figures and/or topics you'd like to discuss.
  - The update can be a list of things you worked on, things you are stuck on, or things that you accomplished. **Keep a list of questions or discussion points throughout the week.** This is a good practice to keep you learning new things without being frustrated. Before coming to the weekly meetings, try to do a little research to see how other researchers solved/answered the questions you have.
  - Your update should also **include a list of things you hope to accomplish** by the following meeting.
  - It is okay if you don't feel like you have much to report and it is very short, but it is critical to keep me informed about the project. This is a good time to get more detailed issues ironed out and chat about career objectives.
  - I am also available to meet ad-hoc—you can schedule appointments with me via email or MS Teams.
4. **Keep a detailed and well-organized laboratory notebook.** I expect students to keep a detailed list of research progress. This may be either an electronic document or on paper, depending on the nature of your work (computational, lab, or field). Entries should include your daily tasks, reproducible methods for all work performed, papers read, meeting notes, etc. Field and laboratory data should always be

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recorded in a hard-copy notebook, as well as entered into an Excel spreadsheet. I am happy to purchase lab notebooks for students and expect your notebook to stay in the laboratory when you graduate.

5. **Make progress towards your research objectives for your project.** We will work together to make a list during our first meeting. It is important that you know what you are trying to accomplish by the end of the semester/summer. We will make sure you have a list of tasks that are doable each week, so you don't get behind.
6. **Make progress towards your personal development objectives.** Depending on the student, you are trying to learn new skills or prepare for graduate school. Make sure your project activities are still moving you forward on these objectives, and if they are not, make sure you talk with me to shift your project and tasks.
7. **Ask for help if you get frustrated.** If you spend more than 3 hours trying to fix something or solve a problem on your own and don't make progress, then ask for help. You can ask me, other students, etc. but getting frustrated can make research miserable. Don't feel bad about asking for help, we are a team.
8. **Have fun.** Research is hard work, so it is important to take breaks and have fun (particularly in the summer)!

Specific deliverables for each research student:

- **Write a list of 3-5 personal development goals.** Bring this with you to our first meeting. Examples include "determine if I want to attend graduate school" or "gain experience with water quality analysis."
- **Write a paper summarizing your research.** This will be due at the end of the summer. The paper should have sufficient detail that *another student* could replicate your work. It should include the details of the experimental setup, experimental procedure, literature that you used for reference, results, etc. It would be best to format this as a journal article. Do not start this at the last minute, but work on it when you have a few minutes (i.e., if you have to wait an hour for a model to run, work on that paper).
- **Prepare a poster summarizing your research.** This will be due at the end of the summer. This will be presented in November at the research symposium, but I expect to see a complete draft by your last week of work in the summer. This is something fun to work on when you need a break from your main research.
- **Meet with me individually to discuss your experience.** During the last week of the summer, meet with me for 30 minutes to discuss your research experience. This is a way to reflect on whether you met your personal goals and provide feedback so we can improve the experience for future students.