

Carleton College Department of Physics and Astronomy
Statement on Expectations of Physics Lab Participants
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Much of science is done in small, collaborative groups. Physics labs are a natural place for participants to learn best practices for collaborative teaching and learning. Here are some ideas gathered from faculty and previous students that can help to facilitate group learning and teaching processes in the lab.

We should recognize that participants come to lab with different levels of knowledge, experience, and expertise. Everyone has their own strengths and areas where they can improve. Lab should be a place where we can develop good lab techniques and skills to their fullest. Each of us should be aware of group interactions, and strive to create an environment that utilizes individual abilities while encouraging growth.

Some concrete steps include the following:

- **Rotate lab tasks** (e.g., writing in the lab notebook, doing propagation of uncertainty, working with the equipment, etc.) regularly and consciously, perhaps every 20 minutes or so, so that everyone can have practice with all aspects of lab.
- **Make sure that everyone's contribution is respected.** Monitor your own and group members' level of comfort and feelings of inclusion and exclusion. If someone is not participating, actively seek to engage them. If someone is dominating, calmly let them know. If you feel excluded, let your group know how you want to participate.
- **Be aware of differences in individuals' learning styles,** and make sure that no one is discouraged from participating. For example, some people need more time than others to consider a question before answering, and group members should make sure to avoid jumping in so quickly to fill the void that some members are left voiceless.

If there are issues, address them in a calm and constructive manner if you feel comfortable doing so. Otherwise, ask your Lab Assistant or Instructor for help. It's part of their job! We are all learning from each other; calm and measured responses will benefit everyone's learning and teaching and make physics a better learning community.