

Work-life balance & Organization

As an undergrad, you balance a lot on your plate between coursework, clubs, work, and social activities. Joining a lab will mean making sacrifices in some of these areas and having exceptional time management skills. This really comes down to prioritizing and organization.

You should be realistic about the time you have to commit to each area of your life and the value of these areas. If you are joining a lab, it should be one of your major priorities. Once you have determined your priorities, you must stay organized and diligent to dedicate time appropriately to each area.

Priorities may change from week to week, but if you find yourself constantly struggling to find time for all of your activities, it may be time to reevaluate your priorities and change your daily habits.

Motivation & Independence

Why do you want to do research? If it's just to fulfill a course requirement or to stand out on an application, you probably won't last long. Good researchers are motivated. They want to further their understanding of a field, help others through their work, or make a substantial contribution to an industry.

Successful researchers are inspired by the bigger picture. This motivates them to get through the tedious work to see a project all the way through. This is what pushes them to stay another hour in lab to figure out the results of an experiment. If you don't find your research interesting, you should speak up. You can always change projects or change labs. You will be more productive working on something you care about.

Persistence & Mindset

You will make mistakes in lab. You will have experiments that do not work. This is fine and expected as long as you own your mistakes and seek out help to understand what went wrong and how to fix it.

Mistakes and failure is part of the research process. Ignoring the mistakes and failures is how to ensure you will not progress and will only cause more problems. Don't be afraid to admit that you messed up. It's to the benefit of everyone in the lab to know where there is lack of clarity in instructions and training. But stay attentive. It is much easier to fix a problem earlier rather than later.

Curiosity & Communication

In the lab, you should be actively participating in conducting research. You should come into lab with an idea of what you will be doing that day (and week and month). If you don't have a task to do, you should ask for one. You should show initiative by asking about your lab mate's projects and asking to be taught more techniques.

You should show your curiosity and interest in the field by sharing ideas, asking questions, and reading research papers. The lab values your ideas. You are not simply performing menial tasks. You should be active and interested and making observations. Speak up and stay curious. If you notice something or have an idea, talk to someone about it. We want to know you care and to hear fresh ideas.

Fun vs. Professional

You will be spending many hours in lab, and you should have fun there. However, you should also be professional and remember to stay focused. It's okay to take small breaks, but at the end of the day, you are here to do work, and you should have something to show for it each day.

Also keep in mind that if you will be asking for a recommendation letter from your PI or graduate student, they will have to attest to your organization, reliability, maturity, and other professional attributes. These characteristics should be reflected in your actions during lab time.

Lab meetings: Preparation & Engagement

Lab meetings are typically held weekly and are a time to discuss the state of the lab as well as voice updates or concerns with individual projects, grants, or papers. These meetings are a good opportunity to show your interest and dedication to your research.

You should show up prepared having read any assigned paper, having reviewed previous meetings' notes, and having noted any updates or concerns of your own. You should also be engaged throughout the meeting despite the discussed topic's relevance to you. Even if the discussion is about projects that don't pertain to you or research that you don't understand, you should still pay attention and take notes. This will reflect your dedication to learning more, and you never know when this information may be useful to you later.