

Making Your Summer REU a Success

Welcome to Stony Brook's REU program! We are delighted that you have chosen to spend the summer doing research in our department.

Here are some pointers for a successful summer:

1. You will be given your own individual research project. This project will probably be part of a larger effort in your host lab, but it may instead be something new and exploratory. Either way, it will be real research, where the answers at the end, and perhaps even the full path to answers, are not yet known.
2. Your primary mentor will be a member of the research group, typically an advanced graduate student or postdoc. This person will help you get started in the lab, and will be available to help answer your questions throughout the summer. Mentors also have their own work to do, but they are an excellent resource whenever you are unsure what you should do next.
3. There are lots of other people around who can help you when you have questions: your faculty advisor and other members of your group, the REU advisors (Prof. Kerber, Prof. Mayr, and Karen Kernan), members of other research groups in the department, and technical staff, including the department's librarians. Stony Brook has a strong tradition of collaboration, so feel free to knock on people's doors.
4. Make sure you know how to do your experiments safely. Check with your mentor before doing something new, and if you have any concerns, ask first. Do not do experiments in the lab alone.
5. Keep a careful notebook. No matter how much time you spend planning a particular experiment, you will be amazed at how quickly afterwards you forget the particulars of what you did. Remember that after your summer research experience is over, someone else in the lab will need to be able to reproduce your experiments.
6. Be a full participant in your group. Join in group meetings, and get to know the people around you. One of the biggest benefits of a summer research experience is getting to know grad students, postdocs, and faculty members, and finding out from them what it's like to be a chemistry researcher.
7. Be a full participant in the REU program. Get to know the other students, in the REU and Stony Brook's other summer programs. Find out what it's like at other colleges, and let people know about your own home school.
8. Ten weeks is a very short time. Remember that research has its ups and downs, and things don't always work as planned. Put your full effort into your project, so that you can learn as much as possible in the time you are here, and perhaps even get a publication out of the experience.

Making Your Summer Mentoring Experience a Success

Your advisor has chosen you to mentor a research student this summer. This experience can be very rewarding, and can help you become a better teacher and researcher. Here are some suggestions for how to have a positive mentoring experience.

1. The student you are mentoring (your "mentee") will need extra help at the beginning, as he or she is learning how to do experiments and how to think about the project that has been assigned. Expect to spend a lot of time with your mentee in the first week, as you help the student get going.
2. Make sure you know the goal and scope of your mentee's project. Communicate with your faculty advisor regularly to ensure that you are both "on the same page".
3. In later weeks, check in with the student at the beginning or end of the day to make sure you know what he or she has planned. When the mentee will be doing something new, help make sure the student knows how to carry out the experiment safely, and that the student's plans are reasonable.
4. Communicate clearly and often with your "mentee". Let the student know your concerns about safety issues, the student's commitment level, the success of the experiment, or any other issues. Also let the student know why you find this research interesting, exciting, and worthwhile. A mentor's enthusiasm is a powerful motivating tool.
5. Remember that you are expected to act as a *mentor*, not as a hands-on assistant. Be available to answer questions, but if you have your own work to do, it's OK to ask the student to wait until you are free. Use your judgment about how to balance your own research against your mentee's needs. If you have troubles finding a proper balance, check in with your advisor for suggestions.
6. Get to know your mentee, and include him or her in some social activities. The student will feel more comfortable coming to you for help if he or she knows you well. Your friendship will also give the student an opportunity to see what graduate school is like, a primary goal of the REU program.
7. Remember that different people have different learning and working styles. Be flexible in your mentoring approach. Do not feel, however, that you need to put up with behavior that you find inappropriate.
8. This mentoring experience is an opportunity for you to learn how to be a research advisor. Before, during and after the summer, think about your experience, about what worked well, what didn't, and what you would like to do the next time around.
9. If you have any problems or questions, check with your advisor and/or speak with one of the REU directors (Prof. Kerber, Prof. Mayr, or Karen Kernan).