Research Experience for Undergraduates

The Hows, Whys, and Inside Scoop



Outline

- What is a REU Program?
- Why should I participate in a REU program?
- How do I select an appropriate REU program?
- The application process.
- Application dos and don'ts.
- What should I expect from an REU program?
- How to be a stellar REU student.

What is a REU Program?

- REU = \underline{R} esearch \underline{E} xperience for \underline{U} ndergraduates
- REU programs are summer or academic year programs to provide research opportunities for undergraduate science and engineering students.
- Summer REU programs are paid eight to 10 week summer internship programs designed to provide students with a research experience at an institution other than their own.
- Summer REU programs serve as a recruiting tool for the host university.
- REU participants work on an individual research project under the direction of a faculty or staff member.
- REU programs are designed to simulate the graduate school experience and prepare participants for graduate study in the sciences or engineering.

Why should I participate in a REU program?



- It is better than flipping burgers for the summer.
 - Most REU programs pay a stipend of between \$3000 \$4500 a summer.
 - Housing and travel to and from the institution is usually included.
- REU programs are an excellent opportunity for students to explore their research interests and gain valuable research experience.
- Helps you to decide if you are graduate school material.
- Provides and opportunity to learn about a possible graduate school of interest.
- Expands your list of professors to serve as references for future employment or grad school applications.

How do I select an appropriate REU program?



- Search for programs in your areas of interest. There will be a program on any topic you can think of, many of the programs are centered around a central theme.
 - http://www.nsf.gov/crssprgm/reu/reu_search.cfm
 - http://www.webguru.neu.edu/programs/browse_programs/
- REU programs are very competitive pick between 10 15 programs to apply to, most have a similar application with no application fee.
- Pick a wide variety of REU locations. The most desirable geographic locations (Santa Barbara and NYC) are usually the most competitive.

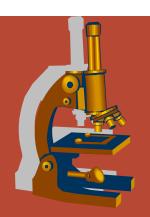
The Application process.



- Applications will consist of an application form, transcripts, and two to three letters of reference. There will be no application fee.
- Most REU programs require a minimum GPA of 3.0. If you have under a 3.0 you application will not be considered.
- Give you references about a month's notice when asking for a letter of reference.
- Many schools offer an online application that requires uploading your materials and letters of reference.
- Most applications are available from early December until early to mid February.
- Decisions are usually made in early to mid March.
- You will have approximately 2 weeks to accept an offer.

Application Dos and Don'ts

- DO apply to universities all throughout the country.
- DON'T apply to your own college or university REU program.
- DO start your applications early.
- DO write an excellent personal statement be sure to mention your interest in graduate study.
- DON'T state you want to go to attend med school or law school in your personal statement.
- DO get references from professors in the field you are applying to for your REU program.
- DON'T use non academic references.
- DO talk to your university REU directors.
- DON'T accept more than one offer.
- DO accept or decline an offer in a timely fashion.



What should I expect from my REU program?

- You will be assigned a research mentor, usually a faculty member.
 - You may be sent papers to read before you arrive to campus. READ THEM!! READ THEM TWICE!!!
 - Good faculty mentors will assign you your own project.
- In most cases you will not be working with your faculty mentor on a daily basis.
 - You will work directly with a graduate student or post doc.
- You are expected to become a full member of the lab for the summer.
 - Attend all lab functions.

What should I expect from my REU program? (cont.)

- Your REU program will have special seminars just for the REUs. Attend all of them!!
 - Research Seminars
 - Graduate School Preparation Seminars
- You will be required to prepare a poster and/or talk summarizing your results from your research which you will present this in a public forum.
 - Great practice for graduate school!!
- Good REU programs will have social a few social activities.

How to be a stellar REU student.

- Be prepared to work hard!!
 - Put yourself on a schedule and follow it.
 - You may have to work some nights and weekends.
- Ask questions when needed, but be prepared to work independently.
- Become part of the lab.
 - Talk to the graduate students and post docs.
 - Get to know your faculty advisor
- Be enthusiastic about your work.
- Remember you are representing your entire university, act appropriately.
- Get to know your fellow REU students and their projects.
- Most of all have fun!!

After the REU experience.



- Keep in contact with your REU advisor, graduate/post doc mentor through out the upcoming year.
- Send a formal thank you to your advisor and mentor.
- When the time comes ask your faculty advisor for a reference to graduate school.
- Present you work at your home institution.
- Use what your learned in your own undergraduate research.