

Collaborative Research in the Chemical Sciences Research Experiences for Undergraduates

Grantor: University of Arizona

Closes: 2/15/2010

Maximum: \$4,000.00

Collaborative Research in the Chemical Sciences Research Experiences for Undergraduates

The application deadline is February 15, 2010.

By participation in the CRCS REU program, you will:

- Gain research experience in nationally recognized labs
- Prepare for graduate school
- Network with peers and research professionals
- Receive mentoring from top faculty
- Receive a competitive stipend and restitution for travel and housing
- Be eligible to receive academic credit and attend professional conferences

This program provides participants with an exciting, hands-on collaborative research experience in nationally recognized research laboratories. The CRCS program is department-wide and so offers research experiences in a variety of chemical disciplines including Analytical, Biological, Inorganic, Materials, Organic and Physical Chemistry.

In addition to the work that CRCS REU students perform in the lab, they also participate in workshops, seminars, social activities and field trips that provide opportunities for increased networking, learning and entertainment. Students are provided with the opportunity to attend professional conferences to communicate their research results and learn about the research of others. All students accepted into the program are supported financially with competitive stipends, travel assistance, housing and a partial board allowance. Students who excel are encouraged to apply for graduate school at the University of Arizona.

By the end of the summer, students become familiar with both the technical skills of performing research within the lab and the social and cultural skills necessary to succeed in industry or academia. Students are generally exposed to a variety of research activities which may include literature searches, experimental design, bench work and lab notebook management, mathematical modeling, instrumental characterization, computer/software control and analysis, machine shop skills, lab safety, as well as communication, organizational and presentation skills. Some general expectations are outlined below.

Students accepted into the program are expected to work in their designated laboratory for a minimum of 40 hours per week to complete an academically appropriate research project designed in conjunction with their advisor. These projects

are designed according to both the interests and abilities of the student and the needs of the research group. By the end of the ten week session, students are expected to complete a written summary of their work, a poster and an oral presentation.

In an effort to provide a more extensive experience and to contextualize the work performed within the lab, students will also be required to participate in a variety of activities outside the lab. These activities may include technical content and career seminars as well as tutorials and workshops on the effective presentation of scientific research.

Sample Schedule of Activities:

Program Orientation

Lab Safety Training/Laser Safety Training

Tour of Departmental Facilities

Professional Ethics and Responsible Conduct of Research Workshop

Presentation Skills Workshop

GRE Workshop

Abstract Writing Workshop

Scientific Presentation Workshop

Seminar Preparation Workshop

Graduate Studies in Chemistry Workshop

The orientation will introduce students to the rationale behind research, how to set realistic goals and expectations, and how to handle frustration and setbacks. Students are encouraged to meet frequently with their faculty and graduate/postdoctoral advisors, particularly in the early stages of the program, to precisely define their projects and to review lab-specific safety protocols. Project plans will be approved by faculty advisors by the end of the second week of the experience.

Throughout the summer, students gather weekly for content and skill-set building seminars. Final reports (abstracts) will be due in the tenth week, at which time students will also be required to participate in a final symposium to present their results.

Students are also invited to participate in a variety of extracurricular activities including lunches, field trips and social events.

Who Should Apply

Undergraduates who have completed their sophomore or junior years and are interested in chemistry, biochemistry or materials science are encouraged to apply. Seniors with additional semesters to complete following the REU program are also eligible. We strongly encourage women and persons from underrepresented minority groups to apply. US Citizenship or permanent residency is required.

Dates & Duration

The CRCS REU program is a 10 week summer program that runs from June 6 - August 11, 2010.

The application target date for the CRCS program is February 15, 2010. Completed applications received before this date will be given full consideration.

Stipend

Students accepted into the CRCS REU program will receive compensation in the sum of \$4000 for their participation. In addition, students are eligible for travel assistance, and partial board allowance will be provided.

Travel and Housing

Students are housed in university dormitories. Once accepted into the program, details concerning compensation, reimbursements, travel and housing arrangements will be provided.

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Link: <http://chem.arizona.edu/REU/expectations.cfm>

Categories: Academia, Basic Science, Biochemistry, Chemical Sciences, Chemistry, Organic Chemistry, Physical Chemistry

Audience: Novice Researcher, Student Researcher, Undergraduate, Undergraduate Researcher