

Dear MESA Students,

The MESA program would like to introduce the new **MESA Summer 2010 Internship Handbook!** This handbook will provide MESA students with a glimpse of various internships for Summer 2010 Research Experiences for Undergraduates available throughout California and across the country. Students will find a detailed description for internships listed, which will facilitate the ability to assess the student's individual needs and requirements regarding a field of interest.

Please make sure that you thoroughly read each internship with particular emphasis to the sections titled “**Eligibility Requirements**” and “**Application Deadline.**” Further information for the specified internship can be found by visiting the Web site address (**URL**) provided in this handbook. In addition, please note that some applications may only be completed directly from the internship's Web site. Hence, it is highly recommended that you visit the specified Web site of your internship interest to verify whether you are able to submit your application online, print out a copy of the application to mail in, or in some cases you may have to ask to have an official application mailed to you. If a research opportunity is labeled as “Pending,” please do not discard the internship, as some institutions update their internship information late in December 2009 or sometimes not until January 2010 or later. Please check the institution Web site for updates! Failure to comply with the internship requirements may result in the delay or rejection of your application, as you will be competing for a position available to students throughout the country. Please keep in mind that you can always contact research coordinators directly for more information. Most importantly, please remember that you will need to request letters of recommendation from faculty, transcripts, etc., for these opportunities, so please ensure that you place a request for these services at least two weeks in advance of your deadline.

If you have any questions or concerns regarding the content of this handbook, please do not hesitate to contact us. Good Luck!

Sincerely,

MESA Program
(310) 660-3593 X-3887
mesa@elcamino.edu

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First Section

Astronomy Related Internships

Cornell University
Arecibo Observatory

URL: http://www.naic.edu/science/summer_set.htm

Application Deadline: *February 2, 2010*

Program Description: The National Astronomy and Ionosphere Center will be conducting a summer student program for undergraduates at the Arecibo Observatory in Puerto Rico, funded by the National Science Foundation. Areas of research include radar and radio astronomy and atmospheric science. Each summer, Arecibo Observatory hosts at least six students and one Puerto Rican teacher for 10 weeks. The students work with staff scientists on projects related to ongoing research or instrumentation development programs. Research may be conducted in atmospheric science, radio astronomy, or planetary radar astronomy. The students are exposed to the interdisciplinary character of this unique research facility through lectures by the staff and visiting scientists, tours of the observatory facilities, hands-on labs, and frequent informal discussions with graduate students and scientists. A seminar series provides the students with a background in the major areas of research conducted at the Observatory and introduces them to the exciting science currently being done here. Students usually have the opportunity to conduct their own independent group observing experiment with the telescope. A bonus of the program is the opportunity to explore the beautiful island of Puerto Rico and its culture. The assistantships, which include a stipend and travel costs to and from Puerto Rico, are for a flexible ten-week period beginning in June.

Eligibility Requirements: Undergraduates, who are U.S. citizens (non-citizens may apply) or permanent residents and who will be enrolled in a bachelor's degree program (part or full-time) during Fall 2010, are eligible.

Program Assistance: A stipend (amount not specified) and travel costs to and from Puerto Rico.

Contact Information:

Summer Research Assistantships/Arecibo Observatory
National Astronomy and Ionosphere Center
CORNELL UNIVERSITY
504 Space Sciences Building
Ithaca, NY 14853-6801

607-255-3735

Indiana University Bloomington

Department of Astronomy

URL: <http://www.astro.indiana.edu/reu.shtml>

Application Deadline: *February 1, 2010*

Program Description: The Astronomy Department at Indiana University Bloomington will host a summer Research Experience for Undergraduates program for highly motivated students interested in astronomy research. Students will work with faculty to carry out projects in observational stellar astronomy and other fields using ground-based photometric and spectroscopic data. The program will include a trip to the Kitt Peak National Observatory in Tucson, AZ, where students will observe on the WIYN 0.9-m telescope and/or the WIYN 3.5-m telescopes as well as tour Kitt Peak and other Tucson astronomical facilities. While in residence in Bloomington, students will also participate in seminars, field trips, and social events. The program runs from May 25 through July 31, 2009.

Eligibility Requirements: Must be a current sophomore or junior and a U.S. citizen or permanent resident.

Program Assistance: A summer stipend of \$5,550 (\$550 per week). In addition, students will be reimbursed for travel from their home or campus to Indiana University.

To Apply: Apply online, PDF, Word or contact the following.

Contact Information:

REU Program
Indiana University Astronomy Dept
Swain Hall West 319
727 East Third Street
Bloomington, IN 47405-7105
Phone: (812) 855-6911
Fax: (812) 855-8725
E-mail: astroreu@indiana.edu

Lunar and Planetary Institute

2010 Summer Intern Program

URL: <http://www.lpi.usra.edu/lpiintern/objectives.shtml>

Application Deadline: *January 22, 2010*

Program Description: The Lunar and Planetary Institute invites undergraduates to experience cutting-edge research in the planetary sciences through our Summer Intern Program. As a summer intern, you would complete a research project of current interest in planetary science, working one-on-one with a scientist at the LPI or at Johnson Space Center. The Summer Intern Program gives participants experience with real research, the opportunity to learn from top-notch planetary scientists, and a chance to preview careers in research. The LPI is located near Johnson Space Center, on the south side of Houston, TX. The LPI provides, on NASA's behalf, leadership in the scientific community for research in lunar, planetary, and solar system sciences, and linkage with related terrestrial programs. The program runs from June 7 through August 13, 2010.

Eligibility Requirements: College undergraduates with at least 50 semester hours of credit interested in pursuing a career in the sciences are eligible. Relevant fields of study include the natural sciences, engineering, computer sciences, and mathematics. Applicants will be considered for appointment without regard to race, creed, color, sex, national origin, age, handicap status, or other non-merit factors. Selection is based on these criteria: (1) scholarship, curriculum, and experience; (2) career objectives and scientific interest; and (3) match of interest of applicant with available research projects.

Program Assistance: Interns will receive a stipend of \$5,000 plus housing and a travel expense reimbursement of \$1,000.

Contact Information:

LPI Summer Intern Program
Attention: Dr. Julie Moses
Program Manager
3600 Bay Area Blvd.
Houston TX 77058
Phone: 281-244-2082
internprogram@lpi.usra.edu

Kitt Peak National Observatory

URL: <http://www.noao.edu/kpno/reu/>

Application Deadline: *January 29, 2010*

Program Description: KPNO, a division of the NOAO, will have available six research assistant positions for the summer of 2010. The KPNO REU program provides an exceptional opportunity for undergraduates considering a career in science to engage in substantive research activities with scientists working in the forefront of contemporary astrophysics. Each REU student is hired as a full-time research assistant to work on specific aspects of major ongoing research projects at NOAO which include the origin, nature, and evolution of stars, galaxies and stellar systems, observational cosmology, analysis of Hubble Space Telescope images, and cometary studies. The positions are full-time for 10 to 12 weeks between June and August 2010, possibly beginning in early June.

Eligibility Requirements: Students must be citizens or permanent residents of the United States.

Program Assistance: A salary of \$650 per week, and travel funds to and from Tucson, Arizona are provided. Summer housing is the responsibility of the student. Students may live on-campus at the University of Arizona, rent an apartment, or house off-campus.

Contact Information:

KPNO REU Program
NOAO Education Outreach
950 N. Cherry Avenue
P.O. Box 26732
Tucson, Arizona 85726-6732
E-mail: kpnoreu@noao.edu

Northern Arizona University
REU in Astronomy at NAU

URL: <http://www.physics.nau.edu/~reu/>

Application Deadline: February 1, 2010: Online application open December 1, 2009

Program Description: Northern Arizona University (NAU) in Flagstaff, Arizona, has been a Research Experiences for Undergraduates site sponsored by the National Science Foundation since 1991. They will be offering this program in the summer of 2010. Eight undergraduate students will work in Flagstaff in 2010. The program is expected to run from June 1 through August 3. Accommodations can be made for students on the quarter system who cannot start that early.

Eligibility Requirements: In order to be eligible, students must be citizens or permanent residents of the United States or its possessions, and be enrolled in an undergraduate degree program. Students graduating in the spring of 2008 are not eligible. We particularly encourage the applications of women and underrepresented minorities.

Program Assistance: Students will be enrolled at NAU and receive three hours of credit; tuition and fees will be covered by the program. The total stipend is expected to be \$4,500, and each student will receive up to \$400 toward travel expenses. Single room housing is included with the program.

Contact information:

Dr. Kathy Eastwood
Northern Arizona University
Department of Physics and Astronomy
P.O. Box 6010
Flagstaff, AZ 86011-6010

Kathy .Eastwood (at) physics@nau.edu
Phone (928) 523-7159
FAX (928) 523-1371

International Research Experience for US Graduate Students Study Astronomy/Astrophysics in India

URL: <http://eo.nso.edu/ires/>

Application Deadline: *January 26, 2010*

Program Description: Sponsored by the National Science Foundation's (NSF) Office of International Science and Engineering (OISE), and administered by the National Solar Observatory (NSO) / Global Oscillation Network Group (GONG) , the main goal of the program is to expose potential researchers to an international setting at an early stage in their careers. The program will take place in Bangalore, India, under the auspices of the Indian Institute of Astrophysics (IIA). During their stay in India, participants will work and study in close collaboration with a scientific IIA staff mentor on a specific research project. Professional experiences will be enhanced by interactions with other IIA staff, affiliates, and visitors, and field trips to other facilities. At the end of the program, participants will submit a detailed report on the results of their research projects, and a report on their overall Indian experience. Summer activities for program participants will include a number of cultural and social events and excursions.

Eligibility Requirements: Applicants must be US citizens or permanent residents, age 21 years or older, and have a passport; registered and in good academic standing in an Astronomy/Astrophysics graduate program in the US; and possess an adequate knowledge of computer programming and data analysis techniques.

Program Assistance: The program will support four full-time summer research positions for 8 weeks between June 8 and August 2, 2010. For each participant, the program will provide round-trip air-coach travel to and from Bangalore, India, a stipend of \$500 US per week, accommodation, miscellaneous travel (field trips) and incidental expenses, and medical expenses.

How to Apply: For application materials go to:
http://eo.nso.edu/ires/IRES_Application_Form.htm

Contact Information: For further questions about the IRES Program, feel free to contact Libby Petrick (520-318-8280) or send email to lpetrick@nso.edu.

Mailing address is:
GONG / IRES Program
ATTN: Ms. Libby Petrick
National Solar Observatory
P.O. Box 26732
Tucson, Arizona 85726-6732

SAO Summer Intern Program
Smithsonian Astrophysical Observatory
REU at Harvard University

URL: <http://hea-www.harvard.edu/REU/REUmain.html>

Application Deadline: *February 1, 2010*

Program Description: Undergraduate students interested in a career in astronomy, astrophysics, physics, or related physical sciences are encouraged to apply for the 2010 program. Interns will work with an SAO/Harvard staff member on a research project for the duration of their stay. The SAO (Smithsonian Astrophysical Observatory) Summer Intern Program is a nine or ten week long program, depending on the availability of Harvard housing. The program will likely run 10 weeks starting on either Sunday, June 6th or June 13th, depending on the availability of Harvard housing. Please check above website for date updates.

Research opportunities exist in all areas of astrophysics, including observational and theoretical cosmology, extra-galactic and galactic astronomy, interstellar medium and star formation, laboratory astrophysics, supernovae and supernova remnants, and planetary science.

Summer Interns are required to write a research-style paper (approximately 10 pages long) over the course of the summer and to present the results of their work in the form of a 15 minute oral presentation at an "Intern Symposium" at the end of the summer.

Eligibility Requirements: Internship applicants must be U. S. citizens or hold a valid green card. Applicants must be currently enrolled in a program leading to a bachelor's degree (those already holding a bachelor's degree are not eligible). Graduating college seniors and students on a leave of absence are not eligible.

Program Assistance: A stipend will be given in the amount of \$4,500 for the summer. Housing and travel will be subsidized.

All materials (excluding recommendations and transcripts) should be submitted electronically.

Contact:

intern@cfa.harvard.edu or phone us at: (617) 496-7063

Program Director
SAO Summer Intern Program, MS-70
Harvard-Smithsonian Center for Astrophysics
60 Garden Street
Cambridge MA 02138

Second Section

Biology Related Internships

American Society for Microbiology
Microbiology Undergraduate Research Fellowship (MURF)

URL: http://www.asm.org/index.php?option=com_content&view=article&id=4322

Application Deadline: *February 1, 2010*

Program Description: The American Society for Microbiology (ASM) Undergraduate Research Fellowship is aimed for highly competitive students who wish to pursue graduate careers (Ph.D. or MD/PH.D.) in microbiology. Students will have the opportunity to conduct full-time research at their home institution with an ASM member, and present research results at the ASM General Meeting the following year. Participants of the ASM Undergraduate Fellowship will agree to participate in an Undergraduate Research Program at any US institution other than their own. Additionally, participants must conduct research for a minimum of 10 weeks beginning in the summer of 2010. Finally, those who are selected for the Undergraduate Research Fellowship will work with a faculty mentor and present a research abstract at the end of their research project for presentation at 2011 ASM General Meeting.

Eligibility Requirements: Eligible student candidates for the fellowship must be from groups that have been determined by the applicant's institution to be underrepresented in the microbiological sciences. These groups include African-Americans, Hispanics, Native Americans, Alaskan Natives, and Pacific Islanders. Additionally, participants must be U.S. citizens or hold permanent U.S. resident status. Students must be enrolled as a full-time matriculating undergraduate student. Freshmen with college level research experience, as well as sophomores, juniors, and seniors who will not graduate before the completion date of the summer program will be considered. Those applying should have taken introductory courses in biology, chemistry, and preferably microbiology prior to submission of the applications. Finally, students should have a strong interest in obtaining a Ph.D. or M.D. /Ph.D. in the microbiological sciences.

Program Assistance: The program will provide a total of up to \$6,000. Participants will receive a stipend \$3,500 as well as \$1,000 for student lodging. Additionally, students will receive \$500 for round trip travel to the host institution. Students will also receive a one-year ASM student membership, and up to \$1,000 in travel support to attend the 2011 ASM General Meeting.

Contact Information:

Microbiology Undergraduate Research Fellowship
Education Board
American Society for Microbiology
1752 N. Street, NW
Washington, DC 20036
Phone: 202-942-9283
Fax: 202-942-9329
E-mail: fellowships-careerinformation@asmusa.org

CITY OF HOPE

Eugene and Ruth Roberts Summer Student Academy

URL: <http://www.cityofhope.org/education/summer-student-academy/Pages/default.aspx>

Application Deadline: *March 15, 2010*

Program Description: Every summer for the past twenty-seven years, thirty to fifty high school and university students have spent ten weeks conducting original biomedical research at City of Hope. Spending a summer at City of Hope helps them to discover their aptitude and interests, and can serve as a foundation for their future career paths in medicine or biomedical research.

Eligibility Requirements: City of Hope welcomes high school and college students who meet the following criteria. Students must be at least sixteen years of age. They should have taken courses in chemistry and biology. Because City of Hope is also a hospital, state law requires students to submit immunization records and proof of a negative tuberculosis skin test. All students must have work authorization and, at the time of hire, be able to present documentation showing their right to work in the U.S.

Program Assistance: Most summer students receive a stipend of \$4,000 for completing the ten-week program. The start and end dates are flexible depending upon the availability of the student and mentor, provided that the student completes the full 10 weeks of the program.

Students who are selected to participate in the Academy must complete their 10 week internship within the four timeframes listed below:

- May 25 to July 30
- June 7 to August 13
- June 14 to August 20
- June 21 to August 27

Contact Information:

Dawn Eastmond, Ph.D.
Eugene and Ruth Roberts
Summer Student Academy
City of Hope
Miller Bldg., Rm. 107
1500 E Duarte Road
Duarte, Ca 91010-3000
deastmond@coh.org
Telephone: 626-256-4673 ext. 63899

California Academy of Sciences
Systematic Biology Research Experience for Undergraduates

URL: <http://research.calacademy.org/opportunities/ssi>

Application Deadline: *February 12, 2010*

Program Description: The California Academy of Sciences announces an internship program in Systematic Biology for the summer of 2010. The eight-week long Summer Systematic Institute matches seven undergraduate students with Academy scientists to conduct research, as well as participate in tours, seminars and lectures related to biodiversity, evolutionary biology and global change. The Summer Systematics Institute will last 8 weeks: from June 14 to August 6, 2010.

Eligibility Requirements: Any U.S. citizen who is an undergraduate student, and who will not have graduated before fall of 2010, is welcome to apply. We encourage applications from groups under-represented in the sciences. An excellent academic record and participation in a wide range of campus activities are highly regarded, but not the sole criteria for the selection process.

Program Assistance: A \$3,600 stipend will be awarded to each intern. In addition, some travel costs (up to \$500) to San Francisco will be reimbursed and a \$2,100 subsistence allowance is given for housing and food. Funding may be subject to federal and/or state income taxes.

Contact Information:

Summer Systematics Internships
c/o Dr. Rich Mooi
California Academy of Sciences
55 Music Concourse Drive
San Francisco, CA 94118-4503
U.S.A.
Phone: 415-379-5270
Email: rmooi@calacademy.org

Colorado State University
Department of Biochemistry and Molecular Biology
Undergraduate Research in Molecular Sciences Summer 2009

URL: <http://www.bmb.colostate.edu/reu.cfm>

Application Deadline: *February 1, 2010.*

Program Description: The Department of Biochemistry and Molecular Biology offers qualified undergraduates throughout the country the opportunity to join research projects in biochemistry and molecular biology for ten weeks each summer. This program allows students to participate in active research within a wide range of areas, including protein structure and function, transcriptional mechanisms, molecular neurobiology, neuronal growth and function, mechanisms of photosynthesis and light-induced electron transfer, and gene expression. Each student is assigned to a specific faculty member's research laboratory, where the student works closely with the faculty mentor, post-doctoral associates, and graduate students. In addition to the research program, students also participate in a variety of seminars, weekly meetings, and social functions. Students from groups that are traditionally under-represented in science (women, under-represented ethnic and racial minorities, and those with physical challenges) are especially encouraged to apply. Also, students from smaller undergraduate institutions with limited opportunities for research are encouraged to apply. The summer 2010 program will last from June 1st through August 6, 2010.

Eligibility Requirements: Our REU Program is oriented towards students who have completed at least two semesters each of biology, general chemistry, and organic chemistry, with a cumulative grade point average of 3.2 or higher at the end of the spring 2008 term. Students who will graduate at the end of the spring 2010 term are not eligible for this program. Participants must be either U.S. citizens or permanent residents of the U.S. or its possessions (NSF requirement). Students from groups that are traditionally under-represented in science (women, under-represented ethnic and racial minorities, and those with physical challenges) are especially encouraged to apply. Also, students from smaller undergraduate institutions with limited opportunities for research are encouraged to apply.

Program Assistance: Participants in the 10-week program are provided \$4,500 stipends, housing in nearby apartments, and \$1,500 for food. In addition, they receive up to \$500 for documented travel expenses. The costs of some optional planned recreational activities (e.g., whitewater rafting) are borne by the student.

Contact Information:

Summer Undergraduate Research Program
Department of Biochemistry and Molecular Biology
Colorado State University
1870 Campus Delivery
Fort Collins, CO 80523-1870
If you have any questions, call 970-491-5602, or e-mail at reubiochem@colostate.edu

Cold Spring Harbor Laboratory

Undergraduate Research Program

URL: <http://www.cshl.edu/URP/>

Application Deadline: *January 15, 2010*

Program Description: Cold Spring Harbor Laboratory offers research in cancer biology, neuroscience, plant Biology, cellular and molecular biology, genetics, macromolecular biology, and bio-informatics. Students learn about scientific ethics in the workplace, scientific research, and career opportunities for scientists. Approximately 25 students from around the world will be accepted to the 10-week summer program to work with senior laboratory staff members on independent research projects. The goals of the Undergraduate Research Program (URP) include giving college undergraduates a taste of original research at the forefront of the biological sciences, and to encourage awareness of the physical and intellectual tools necessary for biological research. Additionally, it is the objective of URP to foster an awareness of the major problem areas currently under investigation in the biomedical and life sciences, as well as promote an acquaintance with researchers and the research environment. Program dates are from June 6 – August 14, 2010.

Eligibility Requirements: Second and third-year undergraduates who have completed one or more years of academic training are invited to apply. Participants must be U.S. citizens or permanent residents. All applicants must complete an URP application form with a personal statement. Faxes or emailed applications will not be accepted.

Program Assistance: URP students will receive a stipend of \$4,000 for their participation in the program. The program covers all room and board expenses. Unfortunately, the program cannot cover travel expenses but will assist in finding the best rates and making travel arrangements.

Contact Information:

Undergraduate Research Program
Watson School of Biological Sciences
Cold Spring Harbor Laboratory
One Bungtown Road
Cold Spring Harbor, NY 11724 USA

Phone: (516) 367-6890

E-mail: urpadmin@cschl.edu
www.cshl.edu/URP

Iowa State University
NSF Summer Program in Molecular Biotechnology and Genomics

URL: <http://www.reu.iastate.edu/index.shtml>

Application Deadline: *March 6, 2010*

Program Description: For this extensive period during the summer, ten students will participate in research projects involving molecular techniques. Projects will include generation of recombinant DNA's, genome analysis in plants and animals, over expression of foreign genes in bacteria and plants, molecular genetics, and bioinformatics. The student's experience will be enriched by several activities outside the laboratory setting. These structured interactions will include discussion sessions on bioethics and on different aspects of biotechnology research and careers. The students will also visit biotechnology facilities on campus and in an industrial environment. In addition, several social functions with mentors, graduate students, postdoctoral associates and other biotechnology researchers will encourage informal interactions. Program runs from June 1st, 2010 through August 7, 2010.

Eligibility Requirements: Undergraduates majoring in the biological or agricultural sciences and showing an interest in preparing for careers in biological and agricultural research and education are eligible. Women and minorities are strongly encouraged to apply. Apply after December 1st 2009.

Program Assistance: Each research assistantship provides a \$4,300 stipend, free housing, meal allowance, and reasonable travel support. Research assistants are expected to work 40 hours per week. Taxes will be deducted from stipend.

Contact:

NSF Summer Program in Molecular Biotechnology and Genomics
Center for Integrated Animal Genomics
2255 Kildee Hall
Iowa State University
Ames, IA 50011-1020

Phone: (515) 294-6202

Fax: (515) 294-2401

reu@iastate.edu or mfrothsc@iastate.edu

Marquette University
Summer Research Program in Biology

URL: <http://www.marquette.edu/biology/summerresearchprogram.shtml#srpbiological>

Application Deadline: *February 1, 2010*

Program Description: The Department of Biological Sciences is pleased to announce their NSF sponsored summer research program in Cell and Molecular Biology starting June 7 and ending August 12, 2010. Participants conduct independent research projects in faculty laboratories in the areas of microbiology, molecular biology, cell biology, developmental biology, plant biology, and neurobiology or invertebrate/vertebrate physiology. The program pairs each student with a faculty mentor who will supervise the student projects. Students are involved daily in their selected research. At the end of the summer students present the results of their research at both a department-wide poster session and symposium. In addition, students attend weekly journal clubs, a workshop on ethical issues in research and medicine, as well as sessions on career options and post-graduate education. The program provides informal social and recreational events

Eligibility Requirements: Students should have completed their sophomore or junior year by the start of the program with a cumulative grade point average of 3.0 or better. Minimum course requirements are the completion of a full year of college biology, general chemistry, and organic chemistry with laboratories. One semester of calculus and additional advanced work in biology are preferred, but not required. Students who graduate before December, 2010, are not eligible. Students may not enroll in classes or hold outside employment during the term of the internship.

Program Assistance: Students will receive a stipend of \$3750 for the 2010 summer program. Additional assistance, including campus housing and partial costs of meals and travel expenses, will also be provided.

Contact Information:

Ms. Deborah Weaver
Department of Biological Sciences
Room LS 109
Wehr Life Sciences Building
Marquette University
PO Box 1881
Milwaukee, WI 53201-1881
E-mail: deborah.weaver@marquette.edu

Mountain Lake Biological Station
University of Virginia REU

URL: <http://www.mlbs.org/REU.html>

Application Deadline: *February 20, 2010*

Program Description: Mountain Lake Biological Station's Research Experiences for Undergraduates is sponsored by the National Science Foundation and takes students from around the country for a ten-week summer program of guided, but independent, original research in the field of biology from late May through early August. Student researchers work closely with researcher mentors in compatible fields of interest. Students take leadership roles in all aspects of the study; they design the study and prepare the proposal, collect data and perform analysis, and finally they interpret the results and prepare a written and oral presentation. Compared to many other REU programs, ours offers a high degree of independence in project choice and design

Eligibility Requirements: Applicant must be an undergraduate student who is either a U.S. citizen or resident. One page (600 words) essay, one letter of recommendation, and undergraduate transcripts are required.

Program Assistance: All expenses are paid and students receive a stipend of **\$5,000** (pending NSF approval).

Contact Information:

REU Coordinator
University of Virginia
Mountain Lake Biological Station
P.O. Box 400327
Charlottesville, VA 22904-4327 USA
street address (for FedEx or other express deliveries):
238 Gilmer Hall
485 McCormick Road

Phone: 434-982-5486

Fax: 434-982-5626

Email: mlbs-reu@virginia.edu

Web: mlbs.org/REU.html

Harvard Medical School
Summer Honors Undergraduate Research Program (SHURP)

URL: <http://www.hms.harvard.edu/dms/diversity/shurpintro.html>

Application Deadline: *February 1, 2010*

Program Description: The Division of Medical Sciences administers research training programs for PhD students in the biomedical sciences at Harvard Medical School. The program is offered for college students from under-represented groups who are seriously considering research careers in the bio-medical sciences. SHURP will be entering its twentieth year in 2010, and presently has more than 412 alumni from colleges across the country, over 90% of who are continuing or planning to continue training and careers in the sciences. Summer research opportunities will be available in a variety of biological and biomedical sciences including (but not limited to): cellular and developmental biology, cell cycle regulation, cardiac and vascular functions and pathology, studies of blood cells, endocrinology, immunology, microbiology, molecular biology, receptor structure and functions, trans membrane signaling mechanisms, study of clotting mechanisms, and virology. The research experience will be supplemented by an informal student-faculty seminar course, in which students meet on a weekly basis during supper to discuss their research projects with other student participants and faculty. Students also participate in a weekly career discussion luncheon series, in which they learn about the career paths of current minority faculty and graduate students and about many aspects of choosing graduate programs, preparing applications, and preparing for interviews. There are also informal opportunities for students to meet current minority and majority faculty and graduate students, including a peer-mentoring program.

Eligibility Requirements: Current college students who are U.S. citizens or permanent residents, with good science course foundation, including at least one biology course beyond introductory biology (such as molecular genetics, biochemistry, microbiology, cell biology, etc.), and some previous research experience are invited to apply.

Program Assistance: The division will provide all research and course-related expenses, housing at the medical school dormitory, travel to and from the program, a stipend of approximately \$400/week for 10 weeks, and health insurance if it is needed. The 2010 program is scheduled to run from Sunday June 1 through Saturday, August 7, although arrival and departure dates of one week earlier or later may be arranged in a few cases, if deemed necessary.

Contact Information:

Inquiries about the Program are welcomed, and they may be directed to either: Jocelyn Spragg, Ph.D., Ed.M., Faculty Director, Minority Programs, Division of Medical Sciences, at 617-432-1342, or the SHURP Staff Assistant, Division of Medical Sciences, at 617-432-4980. Both Dr. Spragg and the SHURP staff assistant can also be reached at 1-800-367-9019, or via e-mail at SHURP@hms.harvard.edu.

National Institute of Health

Summer Internship Program in Biomedical Research

URL: <http://www.training.nih.gov/student/sip/>

(Also check “Other Programs” section for more opportunities)

Application Deadline: *March 1, 2010*

Program Description: Summer programs at the National Institutes of Health (NIH) provide an opportunity to spend a summer working side-by-side with some of the leading scientists in the world, in an environment devoted exclusively to biomedical research. The NIH consists of the new 240-bed Mark O. Hatfield Clinical Research Center and more than 1200 laboratories located on the main campus in Bethesda, MD as well as in Baltimore and Frederick, MD; Research Triangle Park, NC; Phoenix, AZ; Hamilton, MT; and Detroit, MI. Summer programs at the National Institutes of Health (NIH) provide an opportunity to spend a summer working side-by-side with some of the leading scientists in the world, in an environment devoted exclusively to biomedical research. The NIH consists of the new 240-bed Mark O. Hatfield Clinical Research Center and more than 1200 laboratories located on the main campus in Bethesda, MD as well as in Baltimore and Frederick, MD; Research Triangle Park, NC; Phoenix, AZ; Hamilton, MT; and Detroit, MI. For trainees on the main campus, the Office of Intramural Training & Education sponsors a wide range of summer activities including a lecture series featuring distinguished NIH investigators, informal lunchtime talks on training for research careers, and a trainee poster day. The office also makes available information about housing in the area. The NIH provides additional opportunities such as the Science in the Cinema series.

Eligibility Requirements: The Summer Internship Program is for students who will be sixteen years of age or older at the time they begin the program and who are currently enrolled at least half-time in high school or an accredited U.S. college or university. Students who have been accepted into a college or university program may also apply. To be eligible, candidates must be U.S. citizens or permanent residents.

Program Assistance: Awards cover a minimum of eight weeks, with students generally arriving at the NIH in May or June. The stipends for trainees are adjusted yearly, with supplements for prior experience. See website for more details.

Contact Information:

NIH Clinical Center (CC)

Ms. Kathy Herring

Phone: (301) 496-7424

E-mail: kherring@mail.cc.nih.gov

Ms. Lou Russell

Phone: (301) 402-3013

E-mail: lrussell1@mail.nih.gov

Ohio State University
Research Experience for Undergraduates (REU)
Molecular Genetics Department and Biochemistry Department

URL: <http://www.biosci.ohio-state.edu/%7Emgmajors/REU/>

Application Deadline: *March 1, 2010*

Program Overview:

- *Laboratory safety training and laboratory procedure workshops
- *Full-time research activities
- *Weekly seminars and scientific meetings
- *Social activities
- * **Official Program Dates: June 14th through August 16th, 2010**

Eligibility Requirements:

- *U.S. citizenship or permanent residency
- *Current full-time enrollment in a U.S. college or university
- *Completion of basic course work in chemistry, biology and physics
- *Persons from groups underrepresented in science are strongly encouraged to apply

Program Assistance:

- *Stipend of \$4,200
- *Housing in university dormitory
- *Meal allowance

Contact Information:

Molecular Genetics and Biochemistry REU
REU, 984 Biological Sciences
484 W. 12th Ave.
Columbus, OH 43210
dotter.4@osu.edu

Pepperdine University
Summer Undergraduate Research in Biology

URL: www.pepperdine.edu/seaver/natsci/surb

Application Deadline: *February 15, 2010*

Program Description: The Summer Undergraduate Research in Biology (SURB) at Pepperdine University offers research in cellular stress response, characterization of cell phenotype and cell function. Other subjects include apoptosis and cellular stress response, developmental biology: signal transduction and cellular stress, molecular biology: biochemical adaptations to UV-B stress in hylid frogs, neurobiology: anatomical, biochemical and behavioral stress response to traumatic brain injury, and plant ecology: environmental stress physiology of chaparral. The summer research program is geared specifically to sophomore and junior students.

Eligibility Requirements: Applicants must be interested in pursuing a career in biological research, science education, environmental science or biotechnology. They must have completed one year of biology by the summer of 2010 and must be classified as an undergraduate student during that same term. Participants must be available full-time between May 16 and August 1 2010. The National Science Foundation requires that all participants be United States citizens or a permanent resident of the U.S.

Program Assistance: Students selected for the research program will receive a stipend for the summer months (May 16 through August 1). All students must be free from other responsibilities by May 10 so they can participate in the research orientation workshop. On-campus room and board will be provided.

Contact Information:

Natural Science Division
Pepperdine University
Malibu, CA 90263-4321
Phone: 1 (310) 506-4321
Fax: 1 (310) 506-4785
Dr. Jay Brewster
E-mail: jay.brewster@pepperdine.edu

University of California, Riverside
Center for Plant Cell Biology

URL: <http://www.cepceb.ucr.edu/about/REU2010.html>

Application Deadline: *March 1, 2010*

Program Description: The Center for Plant Cell Biology (CEPCEB) in association with the Institute for Integrative Genome Biology (IIGB) at the University of California Riverside is committed to providing rewarding research experiences to undergraduate students. As a Research Experience for Undergraduates (REU) site, CEPCEB brings research experiences to students of two- and four-year colleges who have limited opportunity to learn about the excitement and career options that research in plant cell biology offers. Eight to twelve students are accepted into the nine-week residential program. The program will begin with a one-week workshop, in which students will be introduced to techniques and approaches used for analysis of plant and plant fungal pathogen cell function, including basic molecular biology, genomic and bioinformatics analyses, as well as microscopy methods used to study live cells. Students will then spend nine weeks working with a faculty mentor and a graduate or postgraduate mentor on a research project. Students will also participate in workshops to enhance learning skills and professional development, and to discuss ethics in science.

Research Experiences for Undergraduates (REU Program) June 14 - August 20, 2010.

Eligibility Requirements: Undergraduate students enrolled in a two- or four-year college are eligible for the program. In addition, students must be citizens or permanent residents of the USA. Students are expected to have completed one year of chemistry and biology in preparation for this program.

Program Assistance: Students will live on campus and be given an allowance for meals and a stipend of \$5,000 for the summer.

Contact Information:

Please mail application to:

Dr. Howard Judelson [howard.judelson@ucr.edu]
CEPCEB REU Program
Department of Plant Pathology & Microbiology
University of California
Riverside, CA 92521

For More Information

Students requesting information about the program should contact Dr. Howard Judelson at (951) 827-4199, howard.judelson@ucr.edu or the Center for Plant Cell Biology at (951) 827-2152.

University of Arizona
Research Experiences for Undergraduates in Molecular Biosciences

URL: <http://ubrp.arizona.edu/visiting/default.cfm>

Application Deadline: *Pending *(web has not been update)**

Program Description: The University of Arizona invites applications from non-UA students for a summer research experience in the molecular biosciences. The Research Experience for Undergraduates is an educational program sponsored by the National Science Foundation. This program is designed to teach students science by involving them as part of a research team in biologically related research. Students are paid for their time in the lab where they develop an understanding of scientific method and receive a realistic view of biological research. They also acquire the tools necessary to be successful in post-graduate studies in biology should they choose careers related to biology or biomedical research. This program demonstrates how the resources of a major research university can be brought to bear on undergraduate education. Research labs from a wide variety of disciplines participate in this program. The program runs from May 18 to August 6, 2009, and therefore the students are required to be on The University of Arizona campus during this period.

Eligibility Requirements: The applicant must be a current undergraduate in good academic standing, enrolled in a college or university in the United States. The applicant must also be a US citizen or permanent resident of the United States. The University of Arizona is an equal opportunity employer and we encourage applications from women and minorities.

Program Assistance: Students in this program gain hands-on research experience in one of the U of A research labs. Students receive wages of \$250/week for full-time work, as well as round-trip transportation to campus and a room and board allowance (out-of-town students only).

Contact Information:

Carol Bender, Director
Life Sciences South Building, Room 348
Telephone: 520-621-9348
FAX: 520-626-5491
E-mail: bender@u.arizona.edu

Yeshiva University
Albert Einstein College of Medicine
Summer Undergraduate Mentorship Program

URL:

http://www.aecom.yu.edu/hcoe/page.aspx?id=7512&ekmense1=175_submenu_0_link_16

Application Deadline: *Pending Web Update *(web has not been update)**

Program Description: The Summer Undergraduate Mentorship Program of the Hispanic Center of Excellence (HCOE) at the Albert Einstein College of Medicine (AECOM) is a six week program that offers students a unique opportunity to become exposed to the realities and nuances of the medical profession through a one-on-one “shadowship” with a physician. The program includes shadowing a physician in a preferred area of specialty, workshop/lecture participation, and research experience. The program requires a minimum of thirty-hour weekly commitment. The student will be expected to attend fourteen hours of lecture per week and spend at least six hours per week with their assigned mentor. The program will start on June 23, 2009.

Eligibility Requirements: Students must be US citizen or Permanent Resident. Students will be considered if they are from an underrepresented group in medicine and/or have an economically disadvantaged background. Student must have completed at least their freshman year with at least one year in science by the beginning of the program. See website for more requirements.

Program Assistance: Participants in the program will be awarded a stipend at the end of the six week program.

Contact Information:

For more information please contact Hope Spano at HCOE@aecom.yu.

University of Rochester Medical Center
Summer Undergraduate Research Program

URL: <http://www.urmc.rochester.edu/gebs/summer.htm>

Application Deadline: *March 1, 2010*

Program Description: The Summer Scholars Program at the University of Rochester provides summer undergraduate research opportunities to qualified students who are interested in summer research experiences in biomedical research. Summer fellowships and scholarships are provided, and this summer undergraduate research program is especially designed for undergraduate students who are interested in pursuing a career in research and who are considering applying to graduate school (Ph.D.) or to a combined degree program (M.D.--PH.D.). The program provides an intensive immersion in laboratory-based scientific research at the University of Rochester (Rochester, New York), and it offers summer undergraduate research experiences in cellular and molecular biology, as well as a wide range of other scientific disciplines. The program is further enriched through research seminars, social activities, presentations on graduate school and careers, and a final mini symposium and poster session. A preparation course for the GRE General Test course is also offered.

Eligibility Requirements: All undergraduate students, both at the University of Rochester and elsewhere, are eligible. Preference will be given to students with a GPA of at least 3.0. Preference will also be given to students with an interest in obtaining the Ph.D. degree or entering a combined M.D. /Ph.D. program. Students interested in enrolling only in a M.D. degree program should consider applying to the Strong Children's Research Center summer program rather than to this program. The program runs from June 1, 2010 through August 6, 2010. Women and students from minority ethnic/racial groups that are under-represented in biomedical and biological research are particularly encouraged to apply.

Program Assistance: A stipend of \$450 per week is awarded. On-campus housing will be available to qualified applicants, at no cost, and travel reimbursements for applicants that qualify for FASEB funding.

Contact Information:

Summer Scholars Program
Lisa Opanashuk, Ph.D., Director,
Phone Number: (585) 273-2954
FAX Number (585) 461-4927
lisa_opanashuk@urmc.rochester.edu

Indiana University
Department of Biology
Research Experience for Undergraduates in Molecular Biology and Genetics

URL: <http://www.bio.indiana.edu/undergrad/opportunities/mbgreu/index.html>

Application Deadline: *February 15, 2010*

Program Description: With funding from the National Science Foundation, the Molecular Biology and Genetics (MBG) Program at Indiana University now offers a unique opportunity for talented undergraduates to acquire experience in research. MBG Summer Internships allow students to participate in research addressing some of the fundamental problems in biology. This program is designed for students who are interested in attending graduate school and pursuing a career in research. Interns will have the opportunity to use state-of-the-art techniques. They will be hosted by research laboratories from biology, chemistry, and medical sciences, which are intermingled in three closely spaced, well-equipped buildings. Each student will become an active participant in a laboratory research group. Every student will be assigned a faculty mentor and will design a research project in close consultation with that mentor. Most often, students will also work closely with a graduate student or post-doctoral associate within the faculty member's laboratory. Graduate students or faculty will also introduce students to the type of research they might do in graduate school during weekly lunchtime seminars given from the Department of Biology about their own research. Presentations on science teaching, science, journalism, and careers in industry will introduce students to other types of careers that require a science education. Finally, students will tour the Eli Lilly & Co. pharmaceutical research laboratories in Indianapolis. The program will take place May 26 through August 4, 2010. Students will be expected to participate in research for at least 40 hours per week. Students may not enroll in classes or hold outside employment during the term of their internship.

Eligibility Requirements: This program is designed for students whose home institution is not Indiana University-Bloomington. Participants must be citizens or permanent residents of the United States and have a strong interest in research. The MBG Summer Internship is designed to encourage and enhance the participation of students from schools without large research programs and members of minorities currently underrepresented in the sciences, but all applications will be considered.

Program Assistance: Each student will receive a \$4,000 stipend plus travel expenses to and from the university. While on campus, the students will live in the Indiana University graduate dormitory. Room and board will be provided by the program

Contact Information:

For more information and or an application form, contact the REU Coordinator at 812-856-5522 or e-mail iusummer@bio.indiana.edu.

Third Section

Chemistry Related Internships

California State University, Fullerton
NSF-REU

URL: <http://chemsrvr2.fullerton.edu/reu/reu.html>

Application Deadline: *March 12, 2010*

Program Description: Applications are invited from students who are sophomores or juniors, majoring in a chemistry-related subject, who wish to spend the summer of 2010 conducting research in chemistry or biochemistry at California State University, Fullerton. The ten-week program runs from early June 1 through August 6, 2010.

Eligibility Requirements: Applicants must be either U.S. citizens or permanent residents. We provide a strong supportive environment for “late-bloomers” and re-entry students, and women and minority students are especially encouraged to apply.

Program Assistance: Students receive a stipend of \$5,000 for the ten week period. Local travel assistance is also available for residents of the greater Los Angeles/Orange County area.

Contact Information:

Dr. Mark Filowitz
NSF-REU Co-Director
California State University, Fullerton
P.O. Box 6850
Fullerton, California 92834-6850
Phone: (714) 278-3621
Fax: (714) 278-5390
mfilowitz@fullerton.edu

Columbia University
Undergraduate Chemistry

URL: <http://ugrad.chem.columbia.edu/ugrad/reu/index.jsp>

Application Deadline: *Pending Web Update *(web has not been update)**

Program Description: This allows students to join research projects and experience first-hand how basic research is carried out. Each student is assigned to a specific research project, where he/she works closely with research faculty, post-docs, and graduate students. In addition, seminars, lunch meetings, and social functions are organized to facilitate interaction between undergraduates.

Eligibility Requirements: Students who are in those groups traditionally under-represented in science (women, members of under-represented minorities, and those with disabilities) are particularly urged to apply. Students with special needs or requirements or who can attend a site only under special conditions, are also encouraged to apply, and to discuss this with directors in advance of the application dates. Students interested in the REU program should fill out an application.

Program Assistance: Students are granted stipends and assistance with housing.

Contact Information:

Leonard Fine
Director of Undergraduate Studies in Chemistry
fine@chem.columbia.edu

Georgetown University
REU Program in Chemistry

URL: <http://www8.georgetown.edu/departments/chemistry/undergrad/reu.html>

Application Deadline: *February 15, 2010*

Program Description: Projects involving REU students at Georgetown are available in all of the major subject areas of chemistry (Analytical, Biochemistry, Inorganic, Materials, Organic, Physical and Theoretical). In addition to being heavily involved in a research project, REU participants will participate in other activities, including a series of weekly professional development workshops, field trips to sites of local interest, and a final poster session.

Eligibility Requirements: You must be a U.S. citizen or permanent resident; and not be graduating before summer 2010. You must also be a full-time student and be available for full-time research work (minimum of Monday-Friday, 9:00 am-5:00 pm) from 2010 June 1 through August 6, 2010; and be prepared to live on-campus for the duration of the program.

Program Assistance: The REU Fellowship includes a \$4,500 stipend, housing (shared room in an on-campus residence hall), and reimbursement for reasonable travel expenses.

Contact:

REU Program
Department of Chemistry
Box 571227
Georgetown University
Washington, DC 20057-1227

Contact REU Director or Mr. Travis Hall
(202) 687-6073 (phone)
(202)687-6209 (fax)
chemreu@georgetown.edu

Syracuse University
Research Experience for Undergraduates (REU)
Undergraduate Chemistry Research

URL: <http://chemistry.syr.edu/REU/>

Application Deadline: *March 1, 2010*

Program Description: Participants will formulate their own research project with the help of a mentor within the fields of Inorganic Chemistry, Physical Chemistry, Biochemistry, Solid-State Science, Chemical Physics, Surface Chemistry, Organic Chemistry, Organometallic chemistry, Materials Science, X-ray Diffraction, and other related areas. Program dates are from June 7 through August 13, 2010.

Eligibility Requirements: This program is open to all students who have completed their first year of study and who have a serious interest in chemistry. Most students will have completed their junior year, although talented students with less experience will also be considered for acceptance in the program.

Program Assistance: Each participant will receive a summer stipend of \$4,500. All participants will receive university housing at no additional expense in addition to travel and conference reimbursement (if applicable).

Contact Information:

Directors:

Professor Karin Ruhlandt

kruhland@syr.edu

Phone: 315-443-1306

Professor Michael Sponsler

sponsler@syr.edu

Phone: 315-443-4880

Or Denice Buchanan • dmstowe@syr.edu

Phone: (315) 443-4488

Research Experience for Undergraduates Program
Department of Chemistry
1-014 Center for Science and Technology
Syracuse University, Syracuse, New York 13244-4100
Secretary: Cathy Voorhees - clvoorhe@syr.edu
(315) 443-4109

University of Arizona
Department of Chemistry
Collaborative Research in the Chemical Sciences
Research Experiences for Undergraduates
Ten-Week Summer Program

URL: <http://www.chem.arizona.edu/reu/>

Application Deadline: *Pending Web Update *(web has not been update)**

Program Description: The Collaborative Research in the Chemical Sciences (CRCS) Program is a National Science Foundation funded REU site that focuses on exposing talented undergraduates to the collaborative nature of the chemical enterprise. The CRCS program is centered at the University of Arizona, Department of Chemistry at Tucson, Arizona.

The chemical sciences thrive on the sharing of ideas within teams of investigators with complementing expertise. Shared ideas, paired investigatory approaches, opposing interpretations and cooperative responsibilities not only result in a significant advantage in the pursuit of science, but also is an exciting atmosphere, instilling the enjoyment of research and an enthusiasm for chemistry. The research projects in this program have been designed to be collaborative in nature in which personal interactions with intradepartmental and campus-wide collaborators will be fostered. Students will spend one or more weeks in the laboratory of a collaborator of the mentor, learning the techniques these investigators contribute to the research problem. Travel funds will be provided for off-campus collaborations.

Eligibility Requirements Undergraduates of all levels with interest in chemistry, biochemistry or materials science. We strongly encourage women and persons from underrepresented minority groups to apply. US Citizenship or permanent residency is required.

Program Assistance: Students accepted into the CRCS program will receive compensation in the sum of \$3500 for their participation. In addition, students are eligible for travel assistance. Students are housed in university dormitories. Once accepted into the program, details concerning compensation, reimbursements, travel and housing arrangements will be provided.

Contact Information:
CRCS REU Program
Department of Chemistry
University of Arizona
PO BOX 210041 1306 E. University Blvd
Tucson, AZ 85721-0041
(520) 621-6354

University of Kansas
Summer Undergraduate Research in Chemistry

URL: <http://www.chem.ku.edu/reu/>

Application Deadline: *February 15, 2010*

Program Description: The summer 2010. Undergraduate Research Program provides an opportunity for undergraduate students to participate in paid laboratory research in the department of chemistry. Funding is provided by the National Science Foundation's Research Experiences for Undergraduate program (NSF-REU) and the department of chemistry. Students work under faculty supervision on a basic research problem of their choice in one of the four fields of chemistry; analytical, inorganic, organic, and physical--or combinations of these. Program dates begin May 26 through August 3, 2010.

Eligibility Requirements: Undergraduates who are majoring in chemistry or a closely related field, and who are considering a career--and perhaps graduate work--in chemistry, are encouraged to apply. Courses in general, organic and analytical chemistry should be completed before the start of the program. At least a semester of physical chemistry is useful for some projects. Most applicants will probably be completing their junior year but well-prepared sophomores should also apply. A good academic record, especially in chemistry, will, of course, strengthen an application but evidence of interest in chemical research is a major consideration. The program is not designed for students who will have graduated. We especially encourage applications from women and underrepresented minorities.

Program Assistance: Students invited to participate will receive a stipend plus full room and board and a travel allowance, a total value of approximately \$7,100. Research participants are expected to work full time for ten weeks. The program will also provide a full covered room and board and a travel allowance.

Contact Information:

Jan Akers, RE

Department of Chemistry

University of Kansas

1251 Wescoe Hall Drive

Lawrence, KS 66045-7582

Phone: (785) 864-4670 * FAX: (785) 864-5396 * e-mail: chemistry@ku.edu

University of Southern California
NSF Research Experience for Undergraduates (REU)

URL: http://chem.usc.edu/undergraduate/summer_prog.html

Application Deadline: *February 15, 2010*

Program Description: Spend 10 weeks of your summer carrying out research in residence in our Chemistry Department. The title "Snapshots of Chemistry" implies ways of visualizing chemical processes in which the student becomes easily aware of the qualitative significance of a result via visual images without lengthy mathematical manipulations. Projects involve experimental techniques such as molecular-scale imaging, femtosecond time-resolved observations, X-ray crystallography, etc. Theoretical investigations exploit computer simulations and graphics to investigate processes of biochemical and material applications. Also included are projects in other areas of organic, inorganic, and physical chemistry. In our summer program, you will work one-on-one in a lab with a faculty advisor and graduate student mentor. We will have weekly meetings on scientific topics as well as graduate school applications and scientific ethics. Program runs from May 31 through August 7, 2010.

Eligibility Requirements: The program targets juniors, although applications from sophomores will also be considered. Women and underrepresented minorities are encouraged to apply. U.S. citizenship or permanent residency is required.

Program Assistance: Summer 2010 participants will receive a stipend for the program. Housing, meals, medical coverage, and travel costs will also be covered.

Contact:

Program Coordinator

Anahit Martirosyan

Tel. 213-740-7040

reu@chemmail.usc.edu

Fourth Section

Engineering Related Internships

Boston University
REU in Biomedical Engineering and/or Photonics

URL: <http://www.bu.edu/eng/reu/>

Application Deadline: *February 15, 2010*

Program Description: The faculty and staff of the Boston University Photonics Center, in collaboration with the Electrical & Computer Engineering Department of the College of Engineering, are pleased to announce an interdisciplinary National Science Foundation Research Experience for Undergraduates (REU) site program in photonics. Boston University's Photonics Center is a national leader in the science and engineering of light and its applications to engineering, chemistry, biology, and medicine. Students entering sophomore, junior or senior year in any engineering, mathematics or natural science discipline, including students entering their last year in a two year college technical program, are eligible for this exciting ten-week mentored research experience. Students will receive a stipend as well as free on-campus housing, and a lab budget. Women and underrepresented minorities are strongly encouraged to apply. The program runs from June 1st - August 7, 2010.

Eligibility Requirements:

- GPA of 3.30 or higher is preferred
- Must be a U.S. citizen or permanent resident
- Current freshman, sophomore or junior standing as well as students in their last year of a two year college technical program
- Women and underrepresented minorities are strongly encouraged to apply

Program Assistance:

- Stipend \$5,000
- Free on-campus housing
- Limited travel subsidies

Application Process

- Complete the on-line application
- Submit official transcript to:

Research Experience for Undergraduates
Boston University, College of Engineering
44 Cummington Street, Room 107
Boston, MA 02215

Questions?

- E-mail: reu@bu.edu
- Phone: 617/353-6447 or 1-800-578-1223

Clarkson University
REU Environmental Sciences and Engineering

URL: <http://www.clarkson.edu/reu/index.html>

Application Deadline: *March 1, 2010*

Program Description: The objective of this summer program is to engage a diversified pool of undergraduate students in first-class research projects in environmental sciences and engineering at Clarkson University. Each program participant will be assigned a faculty mentor and a research project. You are expected to work 40 hours per week, and you will have opportunities to work with other undergraduate and graduate students. You may be asked to present interim reports on your research. At the end of the program, all REU participants will present their findings at the SURE Symposium and in a report written in publication format. REU participants are expected to attend skills development seminars on Web page development, presenting research, and other topics. Because the overarching theme of this program is sustainable management of environmental systems, you are required to attend a seminar series on environmental sustainability. The sustainability seminar requires a little bit of reading, lots of fun discussions with your fellow REU-mates and special guest speakers. Your faculty mentor might also ask you to attend other presentations that relate to your research project.

Eligibility Requirements: Engineering and science undergraduate students expecting to graduate within the next three semesters following the summer research program are eligible to apply. Upon equal qualifications, preference will be given to students from under-represented groups in the profession. **All participants must be citizens or permanent residents of the United States.**

Program Assistance: Program participants will receive a stipend of \$4,500. The stipend will be paid in equal installments. The last paycheck will be sent upon the receipt of the final project. A food stipend of \$150 per week is provided for the ten weeks of the program. You can use this money for groceries or dining out. Approximately \$500 is available for travel expenses. The actual travel stipend may vary depending on where you are coming from and how you are getting here. Free housing in the campus apartments is provided. In 2004 students lived in the Townhouse Apartments.

Contact Information:

Dr. Andrea Ferro, Civil & Environmental Engineering
207 Rowley Laboratories
Clarkson University
PO Box 5710
Potsdam, NY 13699-5710
Phone: 315-268-7649
FAX: 315-268-7636
E-mail: aferro@clarkson.edu

Cornell University
Center for Nanoscale Systems REU

URL: <http://www.cns.cornell.edu/reu/>

Application Deadlines: *Early Decision: February 9, 2010*

Program Information: An opportunity for undergraduate students to spend the summer of 2010 at CNS to: Experience independent research in the rapidly developing field of nanotechnology at a leading academic center, develop your practical skills for research, gain in-depth perspective on opportunities in the interdisciplinary science of nanotechnologies, become part of a nanotechnology research community, and recognize the importance of reporting and dissemination of results and development of skills in this integral and essential part of research. Program dates will be from June 7 to August 13, 2010.

Eligibility Requirements: Open to fall 2010 undergraduates who are U.S. citizens or permanent residents. Minority and female candidates are strongly encouraged to apply. All physical science and engineering majors are welcome to apply.

Program Assistance: Students receive: a \$3,800+ stipend and \$600+ for travel. As well as on-campus housing with fellow summer students and a meal plan that includes on- and off-campus dining.

Contact Information:

Kim Cotton
REU Administrative Coordinator
Center for Nanoscale Systems
628 Clark Hall
Cornell University
Ithaca, NY 14853
Email: kec36@cornell.edu
Telephone: (607) 255 2103
Fax: (607) 255 5579

Fifth Section

Mathematics Related Internships

California State University, Northridge
Preparing Undergraduates through Mentoring toward PhD's
(PUMP) Program

URL: <http://www.csun.edu/~mathgs/pump/>

Application Deadline: *Pending Web Update*

Program Description: Selected applicants must transfer to CSUN as mathematics majors to start their studies in fall of 2009. A preliminary bridge course in the summer may be necessary. The program will pay a stipend of \$2,000 for passing the course.

Eligibility Requirements: Applicants must have completed their calculus sequence and introduction to linear algebra (Math 320). NSF requires applicants to be U.S. citizens or permanent residents.

Program Assistance: Students will receive a stipend of \$8,000.

Contact Information:

Department Of Mathematics
ATTN: PUMP Program
California State University
Northridge, CA 91330-8313

Email:

alberto.candel@csun.edu

rabia.djellouli@csun.edu

Werner.horn@csun.edu

Maria.noronha@csun.edu

Cornell University
Department of Mathematics REU Program

URL: <http://www.math.cornell.edu/Undergraduate/REU/REU.htm>

Application Deadline: *February 25, 2010*

Program Description: There are 3 different projects students may work on: (1) Analysis on fractals, (2) Dynamical systems and computer-assisted proofs, (3) Geometric and topological combinatorics. Students will work on these projects for 8 weeks, June 14 through August 6, 2010.

Eligibility Requirements: Funding for this program comes from the National Science Foundation, which has set the following requirements: (1) Participants must be U.S. citizens or permanent residents; (2) Participants must be enrolled in an undergraduate program. High school students and graduating seniors are not eligible. These requirements cannot be waived.

Program Assistance: Students will receive a stipend of \$4,000. Students will arrange for their own room and board; we will assist with local contact information.

Contact Information:

REU Program
Mathematics Department
Marlott Hall, Cornell University
Ithaca, NY 14853-4201
mathreu@cornell.edu

Hope College Mathematics
Research Experience for Undergraduates

URL: <http://www.math.hope.edu/reu.html>

Application Deadline: *February 26, 2010 (Applications beginning December 20, 2009)*

Program Description: Hope College will conduct an 8-week mathematics REU program. The Hope campus has over 100 students from Hope College and other colleges and universities doing research in the natural sciences and mathematics during the summer. There are substantial recreational opportunities, with the west Michigan beaches nearby. Joint social events will be planned with students in concurrent REU programs in physics, computer science, biology, and chemistry. Program lasts from June 7 through July 30, 2010.

Eligibility Requirements: Undergraduate students from any college or university are invited to apply for research positions. Participants must be U.S. citizens or permanent residents.

Program Assistance: Participants will receive a stipend for \$3,200 for the eight-week program. Free apartment-style housing will be provided. Funds for travel and books/supplies are also available.

Contact Information:

REU

Tim Pennings

Department of Mathematics

Hope College

Holland, MI 49422-9000

TEL: (616) 395-7531

FAX: (616) 395-7123

pennings@hope.edu

James Madison University
Department of Mathematics and Statistics

URL: <http://www.math.jmu.edu/reu/>

Application Deadline: *Pending funding*

Program Description: James Madison University has been chosen for a [National Science Foundation Research Experiences for Undergraduates](#) (REU) site in mathematics. Students will work in groups of two under the supervision of a faculty mentor from June 1 through July 24, 2010 (Arrive on campus Sunday, May 31.) The general areas for the research topics are: Gröebner Bases and sudoku, differential equations / fixed points, environmental statistics, and computational statistics.

Eligibility Requirements: Participants must be U.S. citizens or permanent residents, and must be enrolled in an undergraduate program.

Program Assistance: Students will receive on-campus housing and a stipend of \$3,250. On campus housing will be provided.

Contact Information:

REU

Department of Mathematics and Statistics

James Madison University

MSC1911

Harrisonburg, VA 22807

Fax: (540) 568-6857

E-mail: reu@math.jmu.edu

Leonard Van Wyk

(540) 568-2514

vanwyk@math.jmu.edu

California State University, San Bernardino
Research Experiences for Undergraduates in Mathematics

URL: <http://www.math.csusb.edu/reu/reu.html>

Application Deadline: *Pending Web Update/Funding*

Program Description: The principal goal of the REU in mathematics at CSUSB is to provide promising undergraduate math majors with a meaningful, exciting and challenging experience in mathematical research. During the eight-week residential program students will carry out guided independent and collaborative research. Research problems will come from the fields of combinatorics and knot theory, and will be chosen in consultation with a faculty mentor. The program culminates with participants submitting research papers based on their work, and presenting their results at a formal seminar. The National Science Foundation and California State University, San Bernardino funds this program.

Eligibility Requirements: Participants must be continuing their undergraduate education in the fall of 2008, and the NSF requires U.S. citizenship or permanent resident status.

Program Assistance: Successful applicants will receive a \$2,500 stipend, as well as room and an allowance for board.

Contact Information:

Dr. Joseph Chavez
Department of Mathematics
California State University, San Bernardino
5500 University Pkwy
San Bernardino, CA 92407

E-mail: jchavez@csusb.edu

University of California, Los Angeles
Research in Industrial Projects for Students

URL: <http://www.ipam.ucla.edu/programs/rips2010/>

Application Deadline: *February 14, 2010*

Program Description: The Research in Industrial Projects (RIPS) Program provides an opportunity for high-achieving undergraduate students to work in teams on a real-world research project proposed by a sponsor from industry or a national lab. RIPS recruits its students from all over the world. Each RIPS team is comprised of four students, a faculty mentor, and an industrial sponsor. The research problem is developed by the industrial sponsor in consultation with IPAM; it is always a real problem of serious interest to the sponsor and one that offers a stimulating challenge to students. The students, with direction from their faculty mentor and industrial sponsor, spend nine weeks learning about the problem, mastering the latest analytical approaches and techniques to solve it, and developing report-writing and public-speaking skills to be able to make professional presentations about the progress and results of their work to a scientific audience. Industry mentors provide regular contact between the team and the sponsor, monitoring and helping to guide student work. Ultimately, RIPS provides valuable real-world technical and managerial experience for students as well as valuable research & development for sponsors.

Eligibility Requirements: Participants include undergraduate students or recent graduates (December 2009 or May/June 2010). Due to the large number of applications they typically receive, they do not accept applications from previous RIPS students. International students are eligible to apply for RIPS-LA.

Program Assistance: Travel (airfare or mileage reimbursement) to IPAM is covered, subject to certain rules and limits. Housing in the dorms is included. Most meals are covered as well. In addition, participants receive a stipend of \$3000.

Contact Information:

Institute for Pure and Applied Mathematics (IPAM)

Attn: RIPS2009

460 Portola Plaza

Los Angeles CA 90095-7121

Phone: 310 825-4755

Fax: 310 825-4756

Email: rips2010@ipam.ucla.edu

University of Tennessee
Research Experience for Undergraduates
In Mathematics

URL: <http://www.math.utk.edu/Docs/reu.html>

Application Deadline: *Pending funding (website update around December 15, 2009)*

Program Description: The Mathematics Department at the University of Tennessee has been awarded a National Science Foundation grant to host an REU program during summer 2010. The program will run from June 1 to July 31, approximately 9 weeks. During the summer students will attend mini-courses and work on research projects in groups of 3-5 students. When taking a break from mathematics, participants will find many opportunities for recreation East Tennessee, which includes the Great Smoky Mountains National Park. A finalized calendar and information on the research projects/areas, together with information about applying to the REU, will be posted in November.

Eligibility Requirements: Participants must be U.S. citizens or permanent residents. Applicants should send information requested on Web site, along with a current transcript, 2 letters of recommendation, and a one-page statement of interest to Dr. Conrad Plant.

Program Assistance: Each participant will receive a stipend of \$3,600, plus on-campus housing and some local fees (e.g. health fee). Travel funds are also available.

Contact Information:

Dr. Conrad Plant

REU

Mathematics Department

University of Tennessee

Knoxville, TN 37996-1300

Main Office (865) 974-2461

For further information, call Dr. Conrad Plant at 865-974-4319

or by e-mail at cplant@math.utk.edu

Williams College
The SMALL Program

URL: http://www.williams.edu/Mathematics/small_CES.html

Application Deadline: *Pending Update (SMALL 2010)*

Program Description: The SMALL Undergraduate Research Project is a nine-week summer program in which undergraduates investigate open research problems in mathematics. The largest program of its kind in the country, SMALL is supported in part by a National Science Foundation grant for Research Experiences for Undergraduates and by the Science Center of Williams College. Students work in small groups directed by individual faculty members. Many participants have published papers and presented talks at research conferences based on work done in SMALL. Some have gone on to complete PhDs in mathematics. The program dates will be from June 9 to August 9, 2008

Eligibility Requirements: **Must be a U.S. citizen.**

Program Assistance: Participating students receive a stipend of \$3,150. Housing is provided free by Williams College and several board plans are available at reasonable rates. Funding is also available for non-U.S. citizens or permanent residents.

Contact Information:

Prof. Cesar Silva
SMALL Director
Cesar.Silva@williams.edu

San Diego State University
Research Experience for Undergraduates and Teachers

URL: <http://www.sci.sdsu.edu/math-reu/index.html>

Application Deadline: *Pending Web Update*

Program Description: The eight-week summer program, supported by the National Science Foundation, aims to give its participants a clear understanding of the world of mathematics primarily through firsthand experience. The dates of the 2010 program will be June 2-August 14. Participants will be grouped into research teams consisting of undergraduates and high school teachers. Each team will be led by a graduate student and advised by a professor.

Eligibility Requirements: To participate as an undergraduate student, you must be a citizen or permanent resident of the United States. You must also be a full-time student pursuing a major in the mathematical sciences in Fall 2009. **A complete application consists of an application form and two letters of recommendation.**

Program Assistance:

Contact Information:

Program Director: Vadim Ponomarenko

Email: vadim@sciences.sdsu.edu

Phone: (619)594-6176

Fax: (619)594-6746

Mailing Address: REUT Program
Department of Mathematics & Statistics
San Diego State University
5500 Campanile Dr.
San Diego, CA 92182-7720

Sixth Section

Physics Related Internships

Cornell University
REU for Elementary Particle Physics

URL: <http://www.lepp.cornell.edu/Education/REUatLEPP.html>

Application Deadline: *February 19, 2010*

Program Description: Under this program, up to ten science and engineering students from around the country will be invited to participate in research at the Laboratory. The ten-week program will start Monday, June 7, 2010 and end Friday, August 13, 2010. In addition to participation in research, the program will include informal seminars, formal lectures, tours of research facilities, social and recreational events, and a forum at summer's end in which participants present the results of their research. Each student will work in a research group which typically involves a professor, postdoctoral research associates, and graduate students. These mentors will define the nature of the research project, organize access to the resources necessary to carry out the research, and guide the participant's effort through frequent interaction. The student projects are always important elements of the overall research program of the Laboratory. The areas of research in recent years have included:

- Experimental Elementary Particle Physics
- Theoretical Elementary Particle Physics
- Accelerator Physics
- Microwave Superconductivity
- Instrumentation for Scientific Research
- Synchrotron Radiation in Scientific Research

Eligibility Requirements: The REU program is open only to U.S. citizens and permanent residents. The LEPP is intended primarily for sophomore and junior students in science and engineering. In exceptional cases first year students could have enough familiarity with physics, engineering, computer science to profit from their research experience. Students who have not yet enrolled as undergraduates and students who will have a bachelor's degree by summer 2010 are not eligible according to NSF regulations.

Program Assistance: Participants will receive a stipend of \$4,650, a housing allowance, and a travel allowance for a round trip to/from Ithaca. Group housing will be available through Cornell University Campus Life.

For further information contact:

Ms. Monica Wesley

Phone: (607) 255-4952

Fax: (607) 254-4552

man5@cornell.edu

Montana State University
Department of Physics
Summer 2009 REU Opportunities in Solar Physics

URL: <http://solar.physics.montana.edu/reu/>

Application Deadline: *February 1, 2010*

Program Description: Projects range from theoretical research in solar magneto hydrodynamics and plasma physics to analysis of data from NASA missions such as Yohkoh and TRACE. Faculty members from the MSU BOZEMAN SOLAR PHYSICS GROUP will supervise participants. Applicants are encouraged to review projects planned for 2010, and the past years' participant reports from 2001, 2002, and 2003, and to express a preference for faculty supervisor and type of research project (modeling, data analysis) on their application form. Further definition of the research is worked out with the pertinent faculty supervisor. The physics department of Montana State University is located in Bozeman at an elevation of 4700 feet in the Gallatin Valley, surrounded by spectacular mountains, only 90 miles north of Yellowstone National Park. The summer months in Montana offer unparalleled opportunities for biking, hiking, backpacking, fly fishing, whitewater rafting, and backcountry trail riding. The 2010 program will run from May 31 through August 6. Positions will be offered to 10-12 eligible students.

Eligibility Requirements: Participants must be full-time undergraduates, typically finishing their sophomore or junior years. Applications from underrepresented groups are particularly welcomed. There are no restrictions with regard to citizenship of the participants. Foreign participants are supported from non-NSF sources.

Program Assistance: Stipends will be \$4,862 plus a \$365 food allowance for the ten-week program. Travel costs to and from Bozeman are covered and university accommodation will also be provided. For overseas participants, travel support will be limited to the amount of economy roundtrip airfare from Bozeman to JFK/New York.

Contact Information:

Solar Physics REU Program

C/o Prof. Richard Canfield

Department of Physics

Montana State University

P.O. Box 173840

Bozeman, MT 59717-3840

Phone: (406) 994-7049

Contact Prof. Richard Canfield at canfield@solar.physics.montana.edu

Purdue University
College of Science
Department of Physics

URL: <http://www.physics.purdue.edu/reu/>

Application Deadline: *Early February until March 1, 2010*

Program Description: Each summer the department of physics at Purdue runs a National Science Foundation-funded Research Experience for Undergraduates program. This year's ten-week program runs from May 2 until July 30, 2010. The main goal of the program is to give undergraduates an opportunity to participate in a forefront research project.

Eligibility Requirements: Applicant must be a citizen or permanent resident of the United States.

Program Assistance: Each student will receive a stipend of \$450 per week. The costs of housing (in a campus residence hall) and meals will be covered by the program. A travel allowance will also be available.

Contact Information:

REU Program
Department of Physics
525 Northwestern Ave
Purdue University
West Lafayette, IN 47907-2036
E-Mail: research-undergrad@physics.purdue.edu

Rice Quantum Institute
Research Experience for Undergraduates

URL: <http://rqi.rice.edu/academics/reu/reu.php>

Application Deadline: *February 25, 2010*

Program Description: Students from many schools spend 10 weeks at Rice working on cutting-edge projects with individual RQI research groups. This provides an accelerated introduction to experimental and/or theoretical research work itself, as well as insight into how fundamental research in atomic, molecular, optical, surface, materials, chemical and biophysical sciences relate to many important technologies. In addition, each student is expected to attend special seminars and group discussions for REU participants, make a report of the project and participate in the RQI Research Colloquium at the end of the summer.

Eligibility Requirements: All applicants must be U.S. citizens or U.S. permanent residents enrolled in an undergraduate institution for the duration of the program.

Program Assistance: Students accepted into our summer REU Program this year will receive \$3,700 for the total 10 week period. Student housing will be arranged and paid for by the REU Program. There is, however, a \$35 nonrefundable housing application fee.

Contact Information:

REU Program
Rice Quantum Institute, MS 104
Rice University
6100 Main Street
Houston, TX 77005

Bruce R. Johnson
Executive Director
johnson@rice.edu

Yvonne Creed
Executive Assistant
ycreed@rice.edu

SRI International

Research Experience for Undergraduates in Atomic, Molecular, and Laser Physics
Molecular Physics Laboratory

URL: <http://www.sri.com/psd/reu/>

Application Deadline: *February 28, 2010*

Program Description: SRI is a nonprofit research organization located in the San Francisco Bay Area of California. The Molecular Physics Laboratory currently includes 20 professional scientists and 6 postdoctoral associates. Their work covers a wide range of topics in the areas of atomic, molecular, and optical physics as well as many areas extending into chemical physics, physical chemistry, and solid state physics. A wide variety of experimental and theoretical projects are available for undergraduate participation, including studies of combustion chemistry, spectroscopy, optical diagnostics, atmospheric chemistry, detection of atmospheric pollutants, and energy transfer in molecular collisions. Many of the projects involve the use of lasers for detecting and analyzing atoms, molecules, and surfaces. Program dates are from June 1 to August 23, 2010.

Eligibility Requirements: Undergraduate participants must be enrolled in a program leading to the bachelor's degree and must be U.S. citizens or permanent residents of the United States or its possessions.

Program Assistance: This program provides a stipend of \$5,000 and travel funds for eight undergraduate students from colleges and universities across the United States to participate in on-going research projects at SRI for a 12-week period during the summer.

Contact Information:

REU Program

Molecular Physics Laboratory

SRI International

333 Ravenswood Ave.

Menlo Park, CA 94025

Fax: (650) 859-6196

e-mail (internet): reu@sri.com

Phone: (650) 859-3398 (Dr. Kostas Kalogerakis)

or: (650) 895-4131 (Dr. Gregory Faris)

or (650) 859-4614 (Dr. Sanhita Dixit)

Stony Brook University
REU Physics Summer Program

URL: <http://www.sunysb.edu/ureca/physicsreu.htm>

Application Deadline: *Beginning of March 1, 2010 until all available positions are filled.*

Program Description: The department of physics & astronomy at Stony Brook University is hosting an eight-week program for qualified undergraduate physics and/or astronomy majors. The program gives students an intensive research experience with leading researchers in the field. REU participants will be assigned to a faculty mentor and become fully integrated into active research groups using state-of-the-art facilities. Participants will have the opportunity to work closely with their faculty mentor, attend weekly seminars, participate in workshops and present their research results at a student symposium at the close of the program. The program runs from June 14-August 6, 2010. Participants will be placed in one of the following areas:

Astronomy

Atmospheric Physics

High Energy Particle Physics

Instructional Apparatus Development

Laser and Optics

Nuclear Physics

Solid State Physics

Theoretical Physics

Eligibility Requirements: The REU Physics Program is open to all undergraduate students majoring in the field of physics and/or astronomy (program open to non-Stony Brook students as well as Stony Brook undergraduates). **Applicants must be U.S. citizens or permanent residents.** The State University of New York is an affirmative action, equal opportunity educator and employer.

Program Assistance: The program offers participants a fellowship of \$3,400, a dormitory room (double occupancy), and an allowance for food and round-trip transportation to Stony Brook.

Contact Information:

Karen Kernan

TELE: (631) 632-7114

EMAIL: kkernan@notes.cc.sunysb.edu

Dr. Erlend Graf

TELE: (631) 632-8173

EMAIL: Erlend.Graf@sunysb.edu

Princeton Plasma Physics Laboratory
National Undergraduate Fellowship
Program in Plasma Physics and Fusion Energy Sciences

URL: <http://science-education.pppl.gov/NUF.html>

Application Deadline: *February 12, 2010*

Program Description: The National Undergraduate Fellowship Program in Plasma Physics and Fusion Energy Sciences provides outstanding undergraduates with an opportunity to conduct research in the disciplines that comprise the plasma sciences in general and fusion research in particular. The goal of the program is to stimulate students' interest in the fields relevant to fusion research while providing capable assistants for fusion research projects. In order for students to obtain a sufficient background to begin their research projects, the nine-week project is preceded by a one-week introductory course at the Princeton Plasma Physics Laboratory in the basic elements of plasma physics. Students will then travel to the sites of their research projects.

Eligibility Requirements: Applications for the 2010 Program, which runs from June 7, 2010 to August 13, 2010, are invited from students in engineering, mathematics, computer science, or physics, who are matriculated at a U.S. college or university. Students should have taken at least one course in electricity and magnetism beyond introductory physics. Deadline for application material is February 12, 2010. The application must be completed on-line.

Program Assistance: Students will receive a stipend of \$4,800 in addition to transportation to and from their university or permanent U.S. address. The program will pay room, expenses, and some meals during the one-week course at Princeton. However, students will be responsible for their housing and meal expenses during the remaining nine weeks.

Contact Information:

James Morgan, NUF Program Administrator
National Undergraduate Fellowship Program
P.O. Box 451
Mail Stop 40
Princeton, NJ 08543-0451
or E-mail: jmorgan@pppl.gov.

University of California, Davis
Physics Department
Research Experience for Undergraduates Program

URL: <http://london.ucdavis.edu/~zieve/REU/reu.html>

Application Deadline: *February 12, 2010.*

Program Description: In the summer of 2010 the Department of Physics will host an NSF-funded Research Experiences for Undergraduates site. During the 10-week program, students will live on campus while working alongside faculty and graduate students on an ongoing research project. Students will get a view of physics very different from typical coursework. Students can choose among the physics subfields represented at UC Davis, including some areas not available in Northern California REU programs. Each student will have a personalized project, to conclude with a 15-minute presentation to the rest of the REU group. The program will take place from June 20 through August 27, 2010.

Eligibility Requirements: Students must be U.S citizens or permanent residents. This is a condition of funding from the U.S. National Science Foundation. Students must have finished at least one year of college, including a year of calculus-based introductory physics, but may not have completed a B.S., B.A., or equivalent degree. College students from two-year or four-year institutions may apply. Students must be continuing education in fall 2010.

Program Assistance: Students will live together on campus. The program will provide housing and meals, and students will receive an additional \$430/week stipend. Support is also available for travel to and from the program.

Contact Information:

REU Program
Physics Department
University of California
One Shields Avenue
Davis, CA 95616

Contact: Rena Zieve
Phone: (530) 752-2510
E-mail: zieve@physics.ucdavis.edu

University of Chicago
Summer 2010 REU

URL: <http://mrsec.uchicago.edu/educational/reu/>

Application Deadline: *February 16, 2010*

Program Description: This University of Chicago Summer Research Experiences for Undergraduates (REU) Program in Physics, supported by the National Science Foundation, offers undergraduates (members of underrepresented minority groups (African-Americans, Hispanics, and Native Americans and women) the opportunity to gain research experience working in the laboratory or research group of a physics department faculty member. The program is particularly intended at encouraging participation by members of underrepresented minority groups (African-Americans, Hispanics, and Native Americans) and women. Supplementing this valuable practical experience, faculty and graduate student's present special lectures to provide an overview of the wide-ranging research conducted in our Department. Ten to fifteen internships will be awarded for the ten-week program, June 14 through August 20, 2010.

Possible research areas include:

Experimental and Theoretical Condensed Matter Physics

Experimental and Theoretical Elementary Particle Physics

Non-linear Dynamics and Chaos

Space and Cosmic Ray Physics

Theoretical and Observational Astronomy and Astrophysics

Experimental Atomic Physics & Ultracold Atoms

Experimental Biophysics

Eligibility Requirements: Participants must be U.S. citizens or permanent residents who are enrolled in (but not yet graduated from) an accredited undergraduate college degree program with a concentration in physics or related engineering field.

Program Assistance: The stipend for the full ten-week program will be \$4,500. Housing will be provided, and there will be modest travel expense reimbursement.

Contact Information:

For further information contact: pegg@uchicago.edu

The University of Chicago REU Program

Attn: Ms Pegg Anderson

James Franck Institute

The University of Chicago

929 East 57th Street

Chicago, Illinois 60637-1433

University of Colorado, Health Sciences Center
Department of Pharmacology
Minority Summer Research Residency Program

URL: <http://www.uchsc.edu/pharmacology/summerprog/index.shtm>

Application Deadline: *March 12, 2010*

Program Description: In collaboration with the American Indian/Alaska Native Mental Health Programs and the Office of Diversity, the Minority Summer Research Residency program will introduce undergraduate students from diverse, disadvantaged and traditionally underrepresented groups to graduate/research career opportunities at the University of Colorado Health Sciences Center. Research scholars will participate in an 8-week summer research program. Scholars will be assigned and mentored by a distinguished expert/researcher in the fields of alcoholism/pharmacology/mental health. Scholars are expected to participate in journal club meetings on a weekly basis. A final presentation of research accomplishments will be presented at the end of the 10-week session.

Eligibility Requirements: Minimum overall GPA of 2.9 and science GPA of 3.0. Research scholars are selected on the basis of academic achievement, interest in a basic science research career and inclusion in an under-represented group (first generation college graduate, economically disadvantaged or ethnic identity such as African American, American Indian/Alaska Native, Latin/Chicano/Hispanic/Mexican-American, and Asian/Pacific Islander). Successful applicants will have completed two (2) years of college and demonstrated interest & aptitude in laboratory/basic sciences. Accepted students must complete the entire eight weeks.

Program Assistance: Students will receive a \$3,500 stipend/living allowance for the 10-week program. Accepted students will receive the first half of the stipend at the end of June and the remainder of the stipend at the end of the program. Students will be responsible for room and board, but the Department of Pharmacology staff will be available to help identify summer accommodations. Participants in the program are not covered by health insurance, but are covered by workers' compensation insurance

Contact Information:

Melissa Adams
Administrative Assistant
UCHSC, Anschutz Medical Campus
Pharmacology - Mail Stop 8303
RCI North, P18-6101
12800 E. 19th Avenue
PO Box 6511
Aurora, CO 80045
Phone (303) 724-3286

Seventh Section

Multiple Math, Engineering, and Science Related Internships

Arkansas State University
Research Internships in Science of the Environment
RISE

URL: <http://programs.astate.edu/rise/>

Application Deadline: *Pending Web Update*

Program Description: Our summer program involves a combination of highly individualized research experience, group seminars and fieldwork. Undergraduate scholars work directly with faculty mentors, often as part of a research team. The summer experience involves "hands-on" research in the laboratory and/or field in the exciting and diverse field of aquatic and environmental science. Here at the university, students have access to state-of-the-art analytical facilities including ICP-MS and GC-MS as well as cutting-edge field equipment including data loggers and boat electroshockers. Scholars are afforded every opportunity to gain the analytical and field expertise needed to succeed in both post-graduate education and industry. Aside from analytical facilities, summer scholars have access to the university research library and computer facilities. Program dates are from June 2 to August 8, 2009.

Eligibility Requirements: This program targets the educational needs of traditionally under-represented students. Rising junior and senior students who have completed their general science courses (general chemistry, general biology and or geology) are encouraged to apply.

Program Assistance: All students will receive a \$4,000 stipend for the summer. Housing is provided by the University in graduate student apartment complexes (2 or 4 bedroom). Travel to and from the site is also provided by the program. In addition all students will present their summer research at the National Conference on Undergraduate Education meeting the spring following RISE.

Contact Information: If you would like to know more about any of the undergraduate research programs please contact Dr. Robyn Hannigan by e-mail hannigan@astate.edu or:

Dr. Carolyn Dowling
Dept of Chemistry
Arkansas State University
PO Box 419
State University AR 72467
Ph: 870-972-3215 (office)
Fax: 870-972-3089
E-mail: cdowling@astate.edu

California Institute of Technology
Laser Interferometer Gravitational-Wave Observatory

URL: http://www.ligo.caltech.edu/LIGO_web/students/undergrads.html

Application Deadline: *February 17, 2010*

Program Description: The LIGO Project is an NSF-supported endeavor to design, build, and operate an astrophysical observatory for the detection and study of gravitational radiation. The observatory includes two sites (Hanford, Washington and Livingston Parish, Louisiana) with laser interferometric detector systems. (More information on LIGO can be found on the [LIGO home page](#), and from "LIGO: The Laser Interferometer Gravitational-Wave Observatory," A. Abramovici, et al., Science, 256, 325, 1992.) The aim of the LIGO Summer Undergraduate Research Program is to organize the participation of undergraduate students in research associated with the LIGO Project.

Eligibility Requirements: All continuing undergraduate students (i.e. e. who will be students next year) may apply to the LIGO Summer Undergraduate Research Program. Because of funding constraints, some priority will be given to minorities and/or under-represented groups, and to U.S. citizens or permanent residents.

Program Assistance: Students receive a \$6,000 stipend. The pay schedule will be communicated prior to the start of the summer. Federal withholding tax, FICA, and state disability insurance are deducted from each check. International students may or may not pay U.S. taxes depending on tax treaties between the U.S. and the student's country. Students working at Caltech may live in Caltech housing during the program. The cost is approximately \$15 per day, although rates will not be finalized until late spring. There is no board contract but there is a cafeteria on campus. Non-Caltech students cannot move into Caltech housing before mid-June. Housing at LIGO's Hanford and Livingston sites will be provided, at a charge that is approximately the same as Caltech housing. Also, arrangements will be made for daily transportation to and from the sites.

Contact Information:

Mail Application to:
Professor Kenneth G. Libbrecht
LIGO Undergraduate Research Program
Caltech 264-33
Pasadena, CA 91125

If you have questions, see Web site, or contact Prof. Libbrecht at kgl@caltech.edu or by phone at 626.395.3722.

California State University, Fullerton
Department of Chemistry and Biochemistry
Summer Undergraduate Research

URL: <http://chemsrvr2.fullerton.edu/reu/reu.html>

Application Deadline: *March 12, 2010 (Grant Renewal Pending)*

Program Description: The Department of Chemistry and Biochemistry at Cal State Fullerton has been home to a REU-site since 1990. Many of our former participants have gone on to successful careers (academic, industrial and government) in all areas of chemistry and biochemistry

Eligibility Requirement: Applications are invited from students who are sophomores or juniors, majoring in a chemistry-related subject, who wish to spend the summer of 2010 conducting research in chemistry or biochemistry at California State University, Fullerton. We provide a strong supportive environment for “late-bloomers” and re-entry students, and women and minority students are especially encouraged to apply. The ten-week program runs from June 1 through August 6, 2010.

Program Assistance: Funding from NSF-REU, the National Science Foundation Research Experiences for Undergraduates program provides stipends of \$5,000 for the ten-week period plus housing and round trip travel costs for out-of-town participants. Local travel assistance is also available for residents of the greater Los Angeles/Orange County area.

Contact Information:

Dr. Mark S. Filowitz, NSF-REU Co-Director
Department of Chemistry & Biochemistry
California State University, Fullerton
P.O. Box 6866
Fullerton, California 92834-6866
Fax: (714) 278-5316
Phone: (714) 278-3621
E-Mail: mfilowitz@fullerton.edu

Carnegie Institution of Washington
2009 Intern Program

URL: http://www.gl.ciw.edu/Intern_Application

Application Deadline: *Pending Web Update*

Program Description: The Geophysical Laboratory and the Department of Terrestrial Magnetism of the Carnegie Institution of Washington, a nonprofit scientific research institution located in Washington DC, have been leaders in earth science research and education since their founding. The goal of our summer internship program is to provide eligible undergraduate students with a participatory introduction to scientific research. Fundamental investigations in the geosciences (experimental petrology, mineralogy, mineral physics, seismology), planetary sciences and astronomy, and related chemical sciences (inorganic and organic geochemistry, cosmochemistry) are pursued. During a ten-week summer program, undergraduate students will conduct an individual research project with guidance from a GL or DTM staff member. Throughout the summer, students will also tour other DC area research facilities and participate in a weekly seminar program. The summer program will start June 2, 2008 and end August 8, 2008. This program has been funded by a grant from the National Science Foundation's "Research Experiences for Undergraduates" program and by the Carnegie Institution of Washington

Eligibility Requirements: Undergraduate students pursuing a degree in geoscience, physics, chemistry, materials science, biology, astronomy or a related field, who are considering scientific research as a potential career, are encouraged to apply. To be eligible to participate in the program, students must have completed at least 30 semester-hour credits by the start of the summer program, and be either citizens or permanent residents of the United States. Graduating seniors are not eligible to apply. The Carnegie Institution of Washington is an equal opportunity/affirmative action employer. Qualified women and minorities are especially encouraged to apply.

Program Assistance: In addition a stipend of \$4,100 for the ten-week program, housing is provided. All interns will be housed in dormitories at American University, about 1.5 miles from the Broad Branch Campus where both GL and DTM are located. Our campus can easily be reached from AU using D.C.'s METRO bus system. Participants will also receive support toward travel expenses to Washington DC.

Contact Information:

Dr. Stephen A. Gramsch
Summer Intern Program Coordinator
Geophysical Laboratory
Carnegie Institution of Washington
5251 Broad Branch Rd., NW
Washington, DC 20015-1305

Center for Integrating Research and Learning
National High Field Magnetic Field Laboratory

Research Experience for Undergraduates
Summer 2010 Internship Program

URL: <http://www.magnet.fsu.edu/education/reu/application/>

Application Deadline: *April 2, 2010*

Program Description: The NHMFL **Research Experiences for Undergraduates (REU)** Summer Internship Program matches qualified undergraduate students with scientists and researchers at three sites of the National High Magnetic Field Laboratory in an 8-week research mentorship. The research experience offers unprecedented opportunities to explore science at the extremes of magnetic field, pressure, and temperature. The research experience offers many opportunities to explore contemporary science and engineering issues, and to work alongside some of the finest scientists, magnet designers and engineers in the world. The NHMFL offers a wide range of science, math, engineering, and interdisciplinary experiences in physics, chemistry, biological sciences, geochemistry, materials science, and magnet science and engineering. Summer interns, working closely with their NHMFL faculty mentors, are thoroughly integrated into these research and development activities. Internship dates are from June 7 through July 30, 2010. Placements are available at three sites: Florida State University, University of Florida, or Los Alamos National Laboratory.

Eligibility Requirements: The program accepts United States citizens only. You are required to participate in the entire eight weeks of the program.

Program Assistance: Housing is provided for out-of-area students, students who are placed at the Tallahassee site and do NOT attend Florida State University or students who are placed at the University of Florida site and do NOT attend the University of Florida. Travel reimbursements of up to \$600 are paid to students who do NOT attend FSU or do not have permanent residence in Tallahassee. If your parents or legal guardians live in Tallahassee, you are not eligible for reimbursement.

Contact Information:

Jose Sanchez
Assistant Director
Center for Integrating Research & Learning (CIRL)
1800 E. Paul Dirac Dr.
Tallahassee, FL 32310-3706
Contact Jose Sanchez at sanchez@magnet.fsu.edu or (850) 645-0033.

Cornell Center for Materials Research
Research Experience for Undergraduates

URL: <http://www.ccmr.cornell.edu/education/reu/>

Application Deadline: Application available on Dec. 1

Program Description: During a ten-week period (June 7-August 13, 2010), students will work with Cornell faculty on interdisciplinary materials research projects involving chemistry, physics, materials science and engineering disciplines. Students will also participate in an organized program of lectures, mini-courses (e.g. electronics, microscopy), laboratory visits and a variety of recreational activities.

Eligibility Requirements: This opportunity is open to Fall 2010 undergraduates who are U.S. citizens or permanent residents. Selection will be based primarily on academic standing and faculty recommendations. Minority female candidates are strongly encouraged to apply. All chemistry, physics, and engineering majors are welcome to apply.

Program Assistance: The Cornell Center for Materials Research is offering a special summer research program with a stipend of \$4,000, room and additional funds for travel and housing, but program does not cover food.

Contact Information:

Tracy Davenport
REU Coordinator
Cornell Center for Materials Research
627 Clark Hall of Science
Cornell University
Ithaca, NY 14853

Phone: 1 (607) 255-4272

Fax: 1 (607) 255-3957

E-mail: reu@ccmr.cornell.edu

Minority Medical Education Program

Summer Medical and Dental Education Program

URL: <http://www.smdep.org/>

Application Deadline: *March 1, 2010*

Program Description: The Summer Medical Education Program (SMDEP), formerly the Minority Medical Education Program (MMEP), has a long and distinguished history as a national academic enrichment program that helps promising, highly motivated students gain admission to medical school. SMEP prepares students for the competitive medical school admission process. Of all the SMEP graduates who have applied to medical school, **63% have been accepted**. Created in 1988, and funded by The Robert Wood Johnson Foundation, the summer program accepts college undergraduate and post-baccalaureate students who are interested in careers in the health professions. SMEP is committed to helping create a well-trained, diverse physician and health-professions workforce. It is intended for students who are strong advocates for diversity and/or come from groups that are underrepresented in medicine. For instance, applicants may come from economically disadvantaged backgrounds, racial and ethnic groups that historically have been underrepresented in medicine, or parts of the country (such as rural areas) where residents historically have been underrepresented in medicine. All students with a commitment to diversity in the workforce--in the widest and most inclusive sense of the word--are welcome in SMEP.

Eligibility Requirements: Applicant must be a U.S. citizen or hold a permanent resident visa. In addition, applicant must have completed at least one year of college (in addition, qualified post-baccalaureate applicants are also eligible), have an overall GPA of 3.0, with 2.75 in the sciences; and have a combined SAT score of at least 950 or ACT score of at least 20. Applicants who are racially/ethnically underrepresented in medicine (as defined independently by each site), and come from a disadvantaged background (financial and/or educational), are encouraged to apply.

Program Assistance: Tuition housing and meals are provided.

Contact Information:

Summer Medical and Dental Education Program (SMDEP)
smdep@aamc.org, or call (866) 58-SMDEP

Mayo Graduate School
Summer Undergraduate Research Fellowship (SURF)

URL: <http://www.mayo.edu/mgs/surf.html>

Application Deadline: *February 1, 2010*

Program Description: The Mayo Summer Undergraduate Research Fellowship (SURF) program, sponsored by the Mayo Graduate School, is a great way to build your skills as a young scientist or test your inclinations toward research. Each year, 80-90 undergraduate students from around the United States come to Mayo Clinic in Rochester, Minn., to work beside both young and established scientists on a broad range of biomedical research questions. Fellowships are also available at Mayo's campuses in Scottsdale, Arizona, and Jacksonville, Florida. Program runs June 1 through August 6, 2010.

Eligibility Requirements: Students applying must be U.S. citizens or permanent residents. Additionally, students should be enrolled as full-time students in their sophomore and junior year with at least a 3.0 GPA. Finally, applicants should have a serious consideration for a medical research career as a Ph.D. or M.D.

Program Assistance: The SURF Program fellowship award is \$5,000 (*minus taxes*) for 10 weeks. From this stipend, students are responsible for their own travel, housing, and meals. Most students live together in a convenient summer student housing area, which costs about \$150 per week.

Contact Information:

Glenda Mueller
Student Recruitment Programs Coordinator
Mayo Graduate School
200 First Street S0057
Rochester, MN 55905

For a paper application, contact Glenda Mueller at gmueller@mayo.edu
Or call 1-(507)-284-3862.

Stanford University
Center on Polymer Interfaces & Macromolecular Assemblies
Summer Undergraduate Research Experience

URL: http://www.stanford.edu/group/CPIMA/education/general_info.html

Application Deadline: *February 1, 2010 (Application will be available after December 1st 2009).*

Program Description: The Center on Polymer Interfaces and Macromolecular Assemblies (CPIMA) provides qualified undergraduates in chemical engineering, chemistry, materials science, physics, and related fields with a ten-week summer research opportunity. The SURE program allows students to work on independent research projects involving direct interaction with research scientists, post-doctoral scholars, and graduate students at Stanford University, IBM Almaden, University of California - Berkeley, University of California - Davis, or a CPIMA Industrial Affiliate. Students participate in a number of SURE activities including the CPIMA Forum where they present their summer research in a poster. Program starts in June and will run for ten-weeks.

Eligibility Requirements: Internships are offered on a competitive basis to United States citizens or U. S. Legal Permanent Residents who will be sophomores, juniors or seniors (as of Fall semester/quarter 2009) enrolled at a college or university. The CPIMA SURE program is a research-intensive program aimed at students who are interested in graduate school in engineering and/or physical sciences

Program Assistance: Participants will receive a stipend of \$4,500. Housing is included and some travel reimbursement is available.

Contact Information:

Please send official transcripts and letters of reference (e-mail preferred) to the following address:

Dr. Kristin Black, CPIMA SURE Program, Summer 2008
Department of Chemical Engineering
381 North-South Mall, Stanford University
Stanford, CA 94305-5025
Email: kblack@stanford.edu Fax: 650-725-5558

University of California Santa Barbara
The Materials Research Laboratory (MRL)
The Summer RISE program 2010

URL:

<http://www.mrl.ucsb.edu/mrl/outreach/educational/RISE/appinfo/RISESum10.html>

Application Deadline: *February 19, 2010*

Program Description: The Materials Research Laboratory (MRL) and the College of Engineering at the University of California Santa Barbara are seeking *undergraduate science and engineering majors who are interested in pursuing a research experience*. This internship program will bring undergraduate students from around the country to the UC Santa Barbara campus for a 10-week summer research experience. Interns will gain first-hand experience in scientific investigation in a dynamic, collaborative research environment. They will be matched individually with faculty and graduate student lab mentors from the MRL, the College of Engineering, and other UCSB departments. Mentors provide one-on-one training and support for the research project. In addition to research, the interns also participate in weekly group meetings to develop oral presentation skills, attend special seminars and present their results at an end-of-summer poster session.

Eligibility Requirements: Internships are offered to United States citizens or U. S. Legal Permanent Residents who will be sophomores, juniors or seniors (as of Fall semester/quarter 2009) enrolled at a college or university.

Program Assistance: Participants will receive a stipend of \$3,800 for 10 weeks at 35hrs/week. Provide up to \$1000 for housing expenses, or arranged accommodations for free (non-UCSB students only). Travel costs up to \$500 will be provided for travel to and from the UCSB campus (non-UCSB students only).

Contact Information:

Dr. Julie Standish
Materials Research Laboratory
University of California
Santa Barbara CA 93106-5121
Tele: (805) 893-5314
Fax: (805) 893-8502

E-mail to rise@mrl.ucsb.edu

The Mickey Leland Energy Fellowship

URL: <http://www.fossil.energy.gov/education/lelandfellowships>

Application Deadline: *Pending Web Update*

Program Description: This program offers internships for undergraduate and graduate students in science, math, and engineering academic disciplines. The program allows students to apply classroom theory to "real world" work experience while earning a stipend. The program includes a trip to a field site to participate in a technical forum and provides valuable presentation experience. Positions are available for 50 to 60 students. The length for the program will be 10 weeks (May 31 - August 6, 2010), with an employment commitment.

Eligibility Requirements: Be a U.S. citizen; be currently enrolled in an accredited institution of higher learning; Maintain at least a 3.0 GPA; be a math, science, or engineering major.

Program Assistance: Second, third and fourth year students may receive up to \$500/week. First year graduate students may receive up to \$650/week. Travel costs for one round-trip to and from the site, and costs for a trip to a field site for technical presentation, are included in the fellowship award

Contact Information:

Dorothy Fowlkes
Office of Fossil Energy
U.S. Department of Energy
Washington, DC 20585
202-586-7421
dorothy.fowlkes@hq.doe.gov

University Corporation for Atmospheric Sciences
Significant Opportunities in Atmospheric Research and Science (SOARS)

URL: <http://www.ucar.edu/soars/>

Application Deadline: *February 1, 2010.*

Program Description: SOARS is dedicated to increasing the number of African American, American Indian, and Hispanic/Latino students enrolled in masters and doctoral degree programs in the atmospheric and related sciences with the goal of increasing ethnic diversity within the scientific community of the future. SOARS is a four-year program for undergraduate and graduate students interested in pursuing careers in the atmospheric and related sciences. The 10-week summer program will run from May 24 to August 6, 2010.

Eligibility Requirements: All applicants must be citizens or permanent residents of the U.S. Applicants must have completed the equivalent of two years of college, and have a cumulative G.P.A of 3.0 or higher. Students must have a major in atmospheric science or a related field such as the geosciences, biology, chemistry, computer science, earth science, engineering, environmental science, mathematics, meteorology, oceanography, physics, or social science. Moreover, applicant should be a member of a group that is historically underrepresented in the atmospheric and related sciences, as well as plan to pursue a career in atmospheric or a related science.

Program Assistance: Participants work 40 hours a week and earn a competitive wage, which increases with each year of participation. Furnished apartments are provided at no cost to participants. Round-trip airfare is provided to summer working locations from anywhere within the United States and Puerto Rico. Participants receive a regional bus pass that meets local transportation needs.

Contact Information:

University Corporation for Atmospheric Research
SOARS Program Office
P.O. Box 3000
Boulder, CO 80307
Tel: (303) 497-8622
Fax: (303)-497-8629
SOARS@UCAR.edu

University of California, Berkeley
Department of Electrical Engineering and Computer Science
Summer Undergraduate Program in Engineering Research
At Berkeley – Information Technology (SUPERB-IT)

URL: <http://www.eecs.berkeley.edu/Programs/ugrad/superb/superb.html>

Application Deadline: *February 1, 2010 at 5:00pm (Pacific Time)*

Program Description: The Summer Undergraduate Program in Engineering Research at Berkeley - Information Technology (SUPERB-IT) in the Electrical Engineering and Computer Sciences (EECS) Department offers a group of talented undergraduate engineering students the opportunity to gain research experience. The program's objective is to increase diversity in the graduate school pipeline by affirming students' motivation for graduate study and strengthening their qualifications. SUPERB-IT participants spend eight weeks at UC Berkeley during the summer (June 14 – August 6, 2010) working on exciting ongoing research projects in information technology with EECS faculty mentors and graduate students. Students who participate in this research apprenticeship explore options for graduate study, gain exposure to a large research-oriented department, and are motivated to pursue graduate study.

Eligibility Requirements: SUPERB-IT strives to bring diversity to the graduate school pipeline. The program targets students who have been disadvantaged in the pursuit of engineering education and careers. To be eligible, students must be either U.S. citizens or permanent residents. Selection for this program is highly selective: considerations include first-generation college students, limited access to undergraduate research, economic disadvantage, and lack of exposure to graduate engineering study. A 3.0 GPA is required.

Program Assistance: SUPERB-IT participants receive a \$4,000 stipend, room and board on campus in the International House, and up to \$600 for travel expenses during the 8-week program.

Contact Information:

Elisa Lewis
University of California, Berkeley
205 Cory Hall #1770
Berkeley, CA 94720-1770
Tel: (510) 642-7372
Fax: (510) 642-7644
elisa@eecs.berkeley.edu

University of California, Los Angeles
The Science, Engineering and Mathematics (SEM)
Summer Programs in Undergraduate Research (SPUR)

URL: <http://www.ugeducation.ucla.edu/urc-care/spur.htm>

Other UCLA internship links: <http://www.ugeducation.ucla.edu/urc-care/summerprog.htm>

Application Deadline: *Multiple Deadlines*

Program Description: The Science, Engineering and Mathematics (SEM) Summer Programs in Undergraduate Research (SPUR) offer hand-on research experience working in the lab of a distinguished UCLA faculty member. Each student is matched with a faculty mentor and works as a member of their mentor's research group for eight to ten weeks. Every effort is made to match each student with a compatible faculty mentor, based on the student's area of interest. 10-week program begins late June – mid August, 2010. The program features seminars on topics such as the nature of academic life; career opportunities in science, engineering and mathematics; and applying to graduate school. Participants also attend workshops that provide practical information on such academic topics as how to write a personal statement, how to give a research presentation, and GRE test preparation. At the end of the program, each student is required to give a poster presentation describing his/her summer research project at an undergraduate research conference held at UCLA.

Eligibility Requirements: Applicants must be U.S. citizens entering their junior or senior year with a cumulative G.P.A. of 2.80. Students interested in pursuing degrees in medicine (MD) or dentistry (DDS) are not eligible for this program unless they also plan to pursue a Ph.D.

Program Assistance: \$300 PER WEEK: \$2,400 for 8 weeks or \$3,000 for 10 weeks. On campus housing and meal allowance is provided.

Contact Information:

E-MAIL ADDRESS: careoa@lifesci.ucla.edu

TELEPHONE: 310/206-2182

University of California, Los Angeles
Center for Embedded Networked Sensing (CENS) Summer Program

URL: <http://research.cens.ucla.edu/education/internships/>

Application Deadline: *Friday - February 12, 2010*

Program Description: The *Center for Embedded Networked Sensing* (CENS) is developing *Embedded Networked Sensing* (ENS) systems and applying this revolutionary technology to critical scientific and social applications. ENS systems are massively distributed collections of smart sensors and actuators embedded in the physical world. Research areas include: Adaptive Self-Configuring Wireless Systems, Coordinated Actuation, Collaborative Signal Processing, and Micro/Nano Sensor Technology. The societal applications of this research includes: Habitat Sensing, Seismic Sensing and Structural Monitoring, Contaminant Transport Monitoring, and Monitoring of Marine Microorganisms.

Eligibility Requirements: We are interested in recruiting undergraduate students for a chance to participate in the program for the summer of 2010. It is our goal to show students the rewarding benefits of graduate level study by fostering your talents and giving you the opportunity to do real, hands-on research. We welcome undergraduate student applicants of all grade levels from the following academic disciplines: Engineering, Computer Science, and Physical Sciences. Under-represented students are encouraged to apply.

Program Assistance: The program is an 8-week paid internship position, whose participants will do research and develop solutions in the key areas of ENS technology mentioned above. Interns will present their progress during weekly progress meetings, and will participate in focus groups and discussions relating to the program. Additionally, a number of team building and social activities are planned, including area field trips, so that our interns can get a fuller appreciation of the Los Angeles area and learn what UCLA has to offer. By the end of the program you will have completed a project whose results will actually be used by CENS research teams, and you will have learned about and made a contribution to our goal of promoting equity in the sciences.

Contact Information: For more information about the NSF Science & Technology Internship Programs, please check out the website at www.nsfstc.org website. For more information, please contact Wesley Uehara, the program coordinator, by e-mail at wuehara@cens.ucla.edu or by phone at (310) 825-9463.

University of California, Los Angeles
NanoCER Program

URL: <http://www.cnsi.ucla.edu/reu-nanocer/>

Application Deadline: *Friday, February 12, 2010*

Internship Description: The Nanosystems Chemistry and Engineering Research (NanoCER) program is a Research Experience for Undergraduates (REU) site sponsored by the National Science Foundation (NSF) and the California NanoSystems Institute (CNSI). The 2010 summer program will run from June 20 to August 27. Undergraduates interested in chemistry and engineering will learn how to be scientists and engineers by participating in teams that develop new materials, devices and applications of nanotechnology.

Eligibility Requirements: Applicants should have completed their junior year with an overall GPA of 3.0 or higher; be able to clearly articulate an interest in nanotechnology; and show promise for success in team and leadership roles. To be eligible, you must be a US citizen or permanent resident and have completed your undergraduate junior year in a recognized US college or university. Women and students from underrepresented groups are especially encouraged to apply. No prior research experience is needed.

Program Assistance: There is a \$4,500 stipend, on-campus housing, travel allowance (round trip to UCLA), conference travel grant, on-campus meal plans can be purchased for about \$12 per day; parking permits can also be purchased (about \$200)

Contact Information:

Dr. Manashi Chatterjee
NanoCER Co-PI
Education Manager
California NanoSystems Institute (CNSI)
nanocer@cnsi.ucla.edu

Laurie Ultan Thomas
Students Affairs Administrator
California NanoSystems Institute (CNSI)
nanocer@cnsi.ucla.edu
Mailing Address

California NanoSystems Institute
UCLA, 6722 Boelter hall
box 957151
Los Angeles, CA 90095-7151

University of California, Los Angeles
Research in Industrial Projects for Students

URL: <http://www.ipam.ucla.edu/programs/rips2010/>

Application Deadline: *Sunday, February 14th, 2010*

Internship Description: The Research in Industrial Projects (RIPS) Program provides an opportunity for high-achieving undergraduate students to work in teams on a real-world research project proposed by a sponsor from industry or a national lab. RIPS recruits its students from all over the world. Each RIPS team is comprised of four students, a faculty mentor, and an industrial sponsor. The research problem is developed by the industrial sponsor in consultation with IPAM; it is always a real problem of serious interest to the sponsor and that offers a stimulating challenge to students. The students, with direction from their faculty mentor and industrial sponsor, spend nine weeks learning about the problem, mastering the latest analytical approaches and techniques to solve it, and developing report-writing and public-speaking skills to be able to make professional presentations about the progress and results of their work to a scientific audience. Industry mentors provide regular contact between the team and the sponsor, monitoring and helping to guide student work. Ultimately, RIPS provides valuable real-world technical and managerial experience for students as well as valuable R&D for sponsors.

Eligibility Requirements: Eligible applicants include undergraduate students or recent graduates (December 2009 or May/June 2010). Due to the large number of applications we typically receive, we do not accept applications from previous RIPS students. International students are eligible to apply. You must be the equivalent of an undergraduate student enrolled in a bachelors degree program; if you are not sure if you qualify, please email your resume to rips2010@ipam.ucla.edu in advance of the application due date.

Program dates: **June 20 - August 20, 2010**

Contact Information:

Please send your questions to rips2010@ipam.ucla.edu.

Contact Us:

Institute for Pure and Applied Mathematics (IPAM)

Attn: RIPS2008

460 Portola Plaza

Los Angeles CA 90095-7121

Phone: 310 825-4755

Fax: 310 825-4756

Email: rips2010@ipam.ucla.edu

Website: <http://www.ipam.ucla.edu/programs/rips2010/>

University of California, Santa Barbara
Internships in Nanosystems, Science, Engineering and Technology

URL: <http://education.cnsi.ucsb.edu/inset.html>

Application Deadline: *Pending Web Update*

Program Description: The Internships in Nanosystems Science, Engineering and Technology (INSET) program brings science and engineering community college undergraduates to the UC Santa Barbara campus for a summer research experience. Interns gain first-hand experience in scientific investigation in a dynamic, collaborative research environment. They are matched individually with UCSB faculty and graduate student lab mentors who provide training and support. Interns attend weekly meetings, special seminars, and have the opportunity to develop their presentation skills throughout the summer. The INSET program is hosted by the *California NanoSystems Institute (CNSI)*, a collaborative effort established by the State of California, situated on the campuses of UC Santa Barbara and UCLA, which targets the scientific and technological possibilities of working at the molecular scale. It is an integrative venture that calls upon expertise from a very broad scope of disciplines, including biology, chemistry, physics, engineering, materials science, computation, and media arts. The research at CNSI begins with nanostructure building blocks and determines new ways of seamlessly integrating those building blocks into new materials, devices and systems. By ‘mixing and matching’ components having different electronic, magnetic, optical, and structural properties, our ultimate goal is to create ‘designer materials’ and designer systems that will have capabilities far exceeding those found in nature.

Eligibility Requirements: This undergraduate research program is open to any science or engineering undergraduate student who: **(1)** Is currently enrolled at or has transferred from a community college in California **(2)** Intends to enroll as an undergraduate in Fall 2007. (In other words, seniors graduating in June 2007 are not eligible) **(3)** Is a U.S. citizen or permanent resident **(4)** Has satisfied the following course/unit requirements: (1 semester unit = 1.5 quarter units) **(5)** Completed a minimum of 12 semester units in science and/or engineering courses **(6)** Completed or currently enrolled in a minimum of 4 semester units of Calculus

Program Assistance: The stipend for undergraduate interns is \$3,000 total for 8 weeks at 35 hrs/week. We will provide up to \$900 for housing expenses, or arranged accommodations in university apartments for free. (Students will arrange their own meals.). Travel costs to and from the UCSB campus will be provided.

Contact Information:

M. Ofelia Aguirre

INSET program coordinator

CNSI University of California

Santa Barbara CA 93106-6105

(805) 893-7472, inset@cnsi.ucsb.edu

University of California, Santa Cruz

Summer Undergraduate Research
Fellowship in Information Technology

URL: <http://surf-it.soe.ucsc.edu/>

Application Deadline: *February 15, 2010*

Program Description: The University of California Santa Cruz (UCSC) Summer Undergraduate Research Fellowship in Information Technology (SURF-IT) offers opportunities for both UCSC students and non-UCSC students. SURF-IT will provide an intensive and personalized summer program for women, minority, or disadvantaged undergraduates. SURF-IT includes a research experience supervised by a UCSC faculty member in computer engineering, computer science, electrical engineering, or bioinformatics. Students will also have weekly meetings focused on graduate school preparation, how to present research results, research ethics, as well as field trips to local neighboring Silicon Valley research laboratories, and of course a number of social activities. Program dates will be from June 20 - August 20, 2010.

Eligibility Requirements: Must be an undergraduate in good standing and a US citizen or permanent resident.

Program Assistance: Students will receive a stipend of \$4000, Board Travel to and from program, and Housing on one of the nation's most beautiful campuses.

Contact Information:

SURF-IT
School of Engineering
UC Santa Cruz
1156 High Street
Santa Cruz, CA 95064

surf-it@soe.ucsc.edu

University of Connecticut
College Summer Fellowship Program

URL: <http://medicine.uhc.edu/prospective/enrichment/collegefellow/index.html>

Application Deadline: *March 15, 2010*

Program Description: The purpose of the program is to provide a research enrichment experience and some exposure to clinical or dental medicine. The faculty develops, and makes available, suitable project descriptions from which students may select a research opportunity. The student will meet with the faculty sponsor and develop a research protocol in June. The student will commit approximately 30+ hours per week for the project and will work with the faculty sponsor or designates. The program is for ten weeks during the summer with flexible start and end dates.

Eligibility Requirements: Undergraduate college students who are interested in careers in dental medicine, medicine, and biomedical research. Students who are completing their junior year are given preference. Applicants should have completed some college coursework in biology and chemistry (preferably through organic chemistry). Previous laboratory experience is desirable. A variety of projects are available. Applicants must submit an application, transcript, standardized test scores, and two letters of recommendation. A \$30 application fee should also be submitted.

Program Assistance: A \$2,500 - \$3,000 salary is provided. Assistance in locating housing is also provided.

Contact Information:

Assistant Dean, Medical Student Affairs

Keat Sanford

Phone: 860-679-3874

Fax: 860-679-1282

Email: sanford@nso1.uhc.edu

Mailing Address

College Summer Fellowship Program

UConn School of Medicine

Student Services Center

263 Farmington Avenue

Farmington, CT 06030-1905

Room Number

Room AG062

University of Minnesota
Life Science Undergraduate Summer Research Program (LSSURP)

URL: http://www.cbs.umn.edu/main/summer_research/

Application Deadline: *February 15, 2010*

Program Description: The University of Minnesota LSSURP oversees and coordinates five life sciences programs (Biomedical Engineering, Ecology & The Environment, NSF-REU Molecular Biology, NSF-REU Neuroscience, and Independent Research). A 10-week research project under the direction of a University of Minnesota faculty mentor, and numerous special activities focused on professional development as well as social interaction. The summer research experience begins in late May 2010 and concludes with a poster symposium and banquet on early August 2010.

Eligibility Requirements: LSSURP is designed to recruit highly qualified students to the graduate and professional life science programs of the University of Minnesota. Underrepresented minority students are encouraged to apply. Eligible students are expected to have a G.P.A of 3.0 or higher, and must be citizens or permanent residents of the U.S or its possessions.

Program Assistance: Please review the Web site in question for specific details regarding the area of interest.

Contact Information:

University of Minnesota - TC
College of Biological Sciences - LSSURP
124 Snyder Hall (Delivery Code 6174)
1475 Gortner Avenue
St. Paul, MN 55108-1095

Phone: 1(612) 625-2275

Fax: 1 (612) 625-8256

E-mail: summer_research@cbs.umn.edu

University of Southern California
SCEC/SURE - Summer Undergraduate Research Experience

URL: <http://www.scec.org/education/college/internships/SURE.html>

Application Deadline: *Pending Web Update*

Program Description: For the twelfth consecutive summer, the Southern California Earthquake Center (SCEC) will coordinate undergraduate research experiences in summer 2010, bringing students with a broad array of backgrounds and interests to work as student interns with the world's preeminent earthquake scientists and specialists. SCEC/SURE has supported students to work on numerous issues related to earthquake science including the history of earthquakes on faults, risk mitigation, seismic velocity modeling, affects that earthquakes have on natural resources (such as groundwater), science education, earthquake engineering, and many other areas. In 2002, the program expanded to include an Information Technology component, which has evolved into the SCEC/USEIT program. Students participate in interdisciplinary, system-level earthquake science, and SCEC-funded activities throughout the summer. Most internships are full-time, but we are willing to consider some half-time arrangements. SCEC/SURE interns are required to work with their research mentor 10 weeks, to attend the activities described above, to create a poster describing their research, and to present this poster at the SCEC annual meeting. The NSF REU program supports the program

Eligibility Requirements: SCEC/SURE applicants must be U.S. citizens or permanent residents of the United States. Applicants must also be continuing undergraduate students. SCEC's mission spans a broad range of expertise and so does SCEC/SURE. Therefore, we welcome applicants from all disciplines.

Program Assistance: SCEC/SURE interns are each paid a stipend of \$5,000 for the summer. Up to \$300 will be provided toward travel expenses related to the intern program. SCEC/SURE interns are responsible for their own housing, food, and other living expenses.

Contact Information:
SURE Program Manager

Robert de Groot
SCEC Education Programs Manager
degroot@usc.edu

University of Southern California
SCEC Undergraduate Summer in Earthquake Information Technology

URL: <http://www.scec.org/education/college/internships/UseIT.html>

Application Deadline: *Pending Web Update.*

Program Description: The SCEC Undergraduate Summer in Earthquake Information Technology (SCEC/USEIT) unites 20 students from colleges and universities across the country to participate in a leading edge program at SCEC headquarters at the University of Southern California (USC). SCEC/USEIT interns interact in a structured yet flexible, team-oriented research environment and are mentored by some of the nation's most distinguished geoscience and computer science researchers. The name and the acronym communicate the central goals of the program, which are threefold: (1) To allow undergraduates to use, hands-on, the advanced tools of information technology (IT) to solve important problems in interdisciplinary earthquake research; (2) to close the gap between two fields of undergraduate study--computer science and geoscience--by cross-training students in the modes of understanding distinct to these disciplines; and (3) to engage non-geoscience majors in the application of earth science to the practical problems of reducing earthquake risk, and thereby inform students with diverse backgrounds how their classroom skills can be applied to significant social issues. SCEC/USEIT interns work 10 weeks. USEIT interns may take up to one week off during other portions of the summer.

Eligibility Requirements: Summer 2010 USEIT applicants must be U.S. citizens or permanent residents of the United States. Applicants must also be continuing undergraduate students. SCEC's mission spans a broad range of expertise and so does USEIT. While the majority of our interns have considerable computer programming skill or aptitude, we welcome applicants from all disciplines. We are particularly interested in additional students with strong graphics, visualization, and cinema experience.

Program Assistance: SCEC/USEIT interns are paid a stipend of \$4,000 plus \$1000 for housing or \$4000 plus on-campus housing for the summer ten-week program. The stipend is expected to cover food and incidentals. The program will also cover up to \$300 for travel related expenses for students that do not attend school in Southern California.

Contact Information:

SCEC/USEIT Program Manager

Robert de Groot

SCEC Education Programs Manager

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U.S. Department of Energy (D.O.E.)
Science Undergraduate Laboratory Internship

URL: <http://www.scied.science.doe.gov/scied/erulf/about.html>

Application Deadline: *Multiple Deadlines*

Program Description: This program places students in paid internships in Science and Engineering at any of several Department of Energy facilities. Many of the participants in the program have decided on a career in science and engineering because of the nature of the experience. Students work with scientists or engineers on projects related to the laboratories' research programs. The different laboratories each offer different research opportunities. The summer programs at the various laboratories will run from late May to mid-August, fall programs run from August through December and spring programs from January through May. The exact start date will depend on the laboratory and will be given to participants who have been accepted at that specific laboratory. Students are required to participate for the full term of the program. The program is for 10-weeks in May through August. Expect more than 8 hours: 40+hrs/wk in activities and/or research related to internship.

Eligibility Requirements:

- Applicants must be currently enrolled as an undergraduate student and completed at least one college semester. Students who will complete their undergraduate degree prior to starting their internship may apply as graduating seniors.
- Students must be 18 years or older at the start of the program.
- Students must be a U.S. citizen or permanent resident, and must have earned a high school diploma or GED.
- Students can participate in a maximum of two SULI internships, and must have coverage under a health insurance plan. It is the responsibility of each participant to secure insurance coverage before arriving at the appointment site.
- Students attending a community college are encouraged to apply to the Community College Institute for Science and Technology first, in order to be eligible for the maximum number of internships; however, community college students are also eligible to apply for the Science Undergraduate Laboratory Internship

Program Assistance: The stipend is \$400.00 per week. Round trip costs to the lab are provided for students who live more than 50 miles from the lab (some restrictions apply). Details regarding housing vary from lab to lab. A housing allowance is available for interns at labs that do not provide housing arrangements. Information regarding housing will be provided to accepted interns prior to arriving at the lab. No tuition or fees are paid to your university.

Contact Information:

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