# "CAN YOU SEE YOURSELF DOING RESEARCH THIS SUMMER?"

# SUMMER RESEARCH AND ENRICHMENT PROGRAMS FOR UNDERGRADUATES IN STEM MAJORS







# Dear Student,

Congratulations on your desire to pursue a degree in a STEM Discipline. STEM or Science,

Technology, Engineering, and Math degrees are considered by many to be the most difficult to pursue yet most will agree that they are among the most satisfying and can be the most lucrative. As you are probably already aware, your major will require more critical thinking skills, study time, more units, and more time in college. Summer Research and/or Summer Enrichment Programs are an excellent way to gain hands on research experience to prepare for graduate school and the world of academia in the scientific community. Therefore, I encourage you to peruse the programs listed and apply to more than one in case your top pick is not available. Also please encourage your classmates to also apply because today's classmates will be tomorrow's colleagues. Good Luck!

# Important Tips for Successful Applications:

- 1. Apply only to programs that you are eligible for.
- 2. If you have any uncertainties about applying for the program e-mail the contact person before you apply to the program.
- 3) Once you've submitted your application you may want to e-mail the program coordinator to let him/her know that you've applied.
- 3. Meet all the Deadlines posted. Late applications reflect poorly and may jeopardize your chance of being selected.
- 4. Make sure to give your recommender(s) adequate time to write a polished letter of recommendation for you. Give them as much information as possible about you, the program you are applying to and how you see this program as beneficial to your academic and career goals. If possible, send your recommender a copy of your resume and personal statement or essay questions.
- 5. Allow yourself enough time to gather required documentation such as official transcripts, medical insurance coverage forms, if needed. Some residential programs require that you have medical insurance in order to participate. If

this is the case make sure you have this complete well before you begin.

- 6. Apply to more than one program.
- 7. Decide whether or not you can commit time to this program. If you are taking a summer course, decide how much time you will need to study and commute to class. Will this take time away from your research? In the past many students have successfully participated in research programs while working and/or going to school. However, most students who have done this wish they had focused more on their internship by postponing the summer class for the fall semester.
- 8. Familiarize yourself with the program. Avoid blanket statements such as, "I want to be accepted to a summer research program at MIT because it's a good school." Instead talk about specific research being done at that institution and in this program.
- 9. Last but definitely not least, bring your applications to an advisor so they can review.

Good luck,

Tiffany Shaleen Reardon Diversity & Achievement Coordinator University of California, Berkeley College of Engineering Treardon@berkeley.edu



# Center of Integrated Nanomechanical Systems (COINS) at UC Berkeley

# Summer 2013 Summer Research Program Colleges of Engineering, Chemistry & Department of Physics

Join our exciting nanoscience research teams on the cutting edge of advanced technologies in the areas of energy scavenging, sensing, electronics & wireless, mobility & toxicology!

#### Program Description:

- 9 week research experience: June 10, 2013 August 9, 2013
- · Placement in nanoscience research lab
- · Weekly research and academic seminars
- · Graduate school advising and preparation
- · Field trips to diverse science & engineering sites
- Students receive \$4,000 stipend, room & board at the International House, travel allowance (up to \$600).

## Application Process:

On-line application: http://nano.berkeley.edu/coins Deadline: February 1, 2013 Minimum GPA: 3.25

Students from underrepresented communities are encouraged to apply.

Center of Integrated Nanomechanical Systems Liverity of California Berkery

Applicants MUST be a US citizen or Permanent Resident

For more information, contact: Meltem Erol Director of Education & Outreach

510-643-7380 merol@berkeley.edu

http://nano.berkeley.edu/coins



# **UNIVERSITY OF CALIFORNIA, BERKELEY**

# SUPERB-ITS 2013 Computer Science - Information Technology for Sustainability

Summer Undergraduate Program in Engineering Research at Berkeley

Department of Electrical Engineering and Computer Sciences <u>Program Description</u>

- 9-week research experience: June 10 August 09, 2013
- Research guided by faculty mentors and graduate students
- Educational activities include lab tours and industry field trip
- Graduate school advising and subsidized GRE prep course

Exciting research projects to solve environmental problems:

- Smart phones for monitoring energy efficiency
- Distributed solar thermal generation & storage
- Data mining for optimizing building efficiency
- and much more!

#### -\$4,500 Stipend

-Travel Allowance up to \$600 -Room and board provided at International House

#### Application Process

On-line application:

http://www.eecs.berkeley.edu/Programs/ugrad/superb/superbapp/application.shtml

- Application deadline: Thursday, January 31, 2013, 4PM (Pacific Time)
- Underrepresented students are encouraged to apply
- Must be US Citizen or Permanent Resident
- A minimum overall GPA of 3.0 is required with upward trends in grades being preferable

#### Contact Information:

Dahlia Case 205 Cory Hall Phone: (510) 642-7372/Fax: (510) 642-7644 dahliacase@eecs.berkeley.edu http://www.eecs.berkeley.edu/Programs/ugrad/superb/superb.html



Supported by: NSF CISE Research Experience for Undergraduates, EECS, UC Berkeley College of Engineering

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

# Center for Energy Efficient Electronics Science (E<sup>3</sup>S) at University of California, Berkeley

2013 Summer Research Program June 9 - August 10, 2013



# PROGRAM BENEFITS

- 9-week research experience
- Hands-on research guided by faculty mentors and graduate students
- Graduate school advising and subsidized GRE prep course
- Guest speakers, lab tours, and field trips
- \$4,000 stipend plus room & board
- Travel allowance (up to \$600)



Nanomechanics Nanomagnetics

# WHO SHOULD APPLY

- Must be a US Citizen or Permanent Resident
- Sophomores, juniors, and nongraduating seniors
- Engineering and Physical Science majors
- Minimum GPA: 3.25
- Underrepresented students and women are encouraged to apply

# Nanophotonics

Nanoelectronics

How to apply: www.e3s-center.org/E3SREU2013.htm **APPLICATION DEADLINE: February 1,2013** 

CONTACT INFORMATION Dr. Sharnnia Artis, Director of Education & Outreach Phone: 510-664-4467 Email: education@e3s-center.org

http://www.e3s-center.org/education/edu-ugrad-oview.htm#TTE

2013 TTE Summer Research Internship Date: June 8-August 10, 2013 Location: UC Berkeley Website: <u>http://www.e3s-center.org/TTEREU2013.htm</u> *Application Deadline: February 1, 2013* 

*What is the TTE REU Program?* A 9-week program that introduces energy research to community college students who are motivated by science and engineering. TTE REU research projects have a focus on:

*Bioengineering and synthetic biology:* Create advanced biofuels with engineered microbes

*Energy Efficient Electronics Science:* Design and test low-energy electronic devices

*Nanotechnology and Nanoscience:* Explore nanomaterials for next generation energy storage, nanochips, chemical biosensors and adhesives

Summer interns have the opportunity to join Berkeley researchers working in <mark>a</mark> collaborative and innovative environment on energy-related problems.

Professional development: Transfer preparation seminars, guest speakers, and lab tours

#### Eligibility

- □ US citizen or permanent resident
- ☐ 3.25 GPA or higher for science, engineering, and math courses
- *Enrolled in <mark>a</mark> California community college*
- Completed two calculus courses before June 2013

Completed three science or engineering courses, one of which has a laboratory component, before June 2013

- Plan to return to a community college and apply for transfer admission to a 4-year
- institution for science or engineering in Fall 2013
- No prior research experience required

**Commitment to Diversity:** TTE REU is committed to broadening participation in science and engineering. We strongly encourage students from historically under-represented groups in science and engineering to apply to our internship program. Our program is designed to promote future student success by providing support through mentoring, research training, and various networking activities.

*Questions or addition information:* Contact TTE REU Program Manager, Sharnnia Artis at <u>tteprograms@e3s-center.org</u> or 510-664-4467 Sharnnia Artis, Ph.D.



During the summer of 2013, the National Nanotechnology Infrastructure Network will host a Research Experience for Undergraduates (NNIN REU) Program from June through August, hiring approximately 85 interns to work at the fourteen NNIN sites. We are looking for engineering and science students with broad interests across disciplines focusing on nanotechnology.

Minority and female candidates are especially encouraged to apply, along with students with no previous research experience.

The chosen undergraduates taking part in the ten-week NNIN REU program will receive handson nanoscience and technology experience through research with applications to bioengineering, chemistry, electronics, materials science, optics, opto-electronics, physics, and the life sciences. The research projects are designed and supervised by the faculty and technical staff at the NNIN research facilities. Interns work with faculty and graduate students on projects using the unique resources offered at their award site.

http://www.nnin.org/nnin 2013reu.html

Application Deadline February 13, 2013



A Nine-Week Summer Research Experience for Undergraduates in Cybersecurity and Privacy

# RESEARCH ACTIVITIES

- Define a research problem
- Conduct scientific research
- Summarize your results in a scientific paper
- Present your finding in oral and poster presentations

## PROGRAM BENEFITS

- 9-week research experience: <u>June 10 August 9, 2013</u>
- Program dates may vary depending on location
- Research guided by faculty advisors and graduate student mentors
- Guest speakers, lab tours, and industry field trips
- Graduate school advising and subsidized GRE prep course
- \$4,000 stipend and travel allowance up to \$600
- Room and board provided

# Contact Information

TRUST REU Program University of California 337 Cory Hall Berkeley, CA 94720

510-643-5883 reu-info@truststc.org URL: www.truststc.org





RESEARCH PROGRAM LOCATIONS Carnegie Mellon University (Pittsburgh, PA) Cornell University (Ithaca, NY) Stanford University (Palo Alto, CA) UC Berkeley (Berkeley, CA) Vanderbilt University (Nashville, TN)

# WHO SHOULD APPLY?

- U.S. citizens or U.S. permanent residents
- Completed Sophomore year of study in Computer Science, Computer Engineering, Information, Privacy Policy or related field
- Good programming knowledge in an objectoriented language (C++ or Java)
- GPA of 3.0 or above
- Underrepresented students are encouraged to apply

# HOW DO I APPLY?

Online application with additional information and instructions are available at www.truststc.org/reu

Application deadline is February 15, 2013

The Team for Research in Ubiquitous Secure Technology (TRUST) is a National Science Foundation sponsored Science and Technology Center, Cooperative Agreement No. 0424422 with headquarters at the University of California, Berkeley.

http://www.truststc.org/education/reu/13/instructions2013.html

# REU- Nanotechnology for Biology and Engineering

The Institute for NanoBioTechnology at **Johns Hopkins University** offers undergraduate students from colleges and universities around the country a chance to participate in research projects in the exciting and rapidly growing area of nanobiotechnology, a place where biology, medicine, and nanotech meet. Applications for Summer 2013 is available. The deadline is February 1, 2013.

The 2013 REU is scheduled to run from 5/26/2013 through 8/3/2013.

 Application available at <u>https://app.applyyourself.com/?id=JHU-SI</u> Benefits

- hands-on graduate level laboratory research experience
- guidance from faculty and graduate student mentors
- \$4800 stipend + paid housing + allowance for travel
- Program Requirements
- orientation
- 10 weeks of research
- professional development seminars (topics such as: venture capital in nanobiotechnology, ethics in research, intellectual property, academia vs. industry)
- present research at poster session

Who should apply

- undergraduate students from all institutions who have completed their sophomore or junior year
- under-represented students in science and engineering are encouraged to apply
- only U.S. citizens and permanent residents are eligible to apply

#### http://inbt.jhu.edu/education/undergraduate/reu/

Summer Medical and Dental education Program (SMDEP) is a FREE full tuition, housing, and meals) six-week summer academic enrichment program that offers freshman and sophomore college students intensive an

personalized medical and dental school preparation. full tuition, housing, and meals) six-week summer academic enrichment program that offers freshman and sophomore college students intensive and personalized medical and dental school preparation.

The program is looking for freshman and sophomore students with a minimum gpa of 2.5. Applicants must be a US Citizens or permanent resident visas.

Each SMDEP site makes their admissions decisions on a "first come, first erve basis." *Please apply sooner rather than later to increase your change of being selected.* 

ttp://www.smdep.org/start.htm

# **Community College Internship Program Overview**

The Community College Internship (CCI) program seeks to encourage community college students to enter technical careers relevant to the DOE mission by providing technical training experiences at the DOE laboratories. Selected students participate as interns appointed at one of 15 participating DOE laboratories. They work on technologies or instrumentation projects or major research facilities supporting DOE's mission, under the guidance of laboratory staff scientists or engineers.

The CCI program is sponsored and managed by the DOE Office of Science's Office of Workforce Development for Teachers and Scientists (WDTS) in collaboration with the DOE laboratories.

Applications for the CCI program are solicited annually for the Summer Term. Internship appointments are 10 weeks in duration. Each DOE laboratory offers different technical internship opportunities; not all DOE laboratories participate in the CCI program.

Applications Due January 10, 2013 <u>http://science.energy.gov/wdts/cci/how-to-apply/</u>

The Princeton Institute for the Science and Technology of Materials (PRISM) and the Princeton Center for Complex Materials (PCCM) are sponsoring research opportunities for undergraduates in disciplines related to Materials Science. Potential projects span a broad range of topics under the guidance of faculty from the departments of Physics, Chemistry, Molecular Biology, Chemical Engineering, Electrical Engineering, Mechanical and Aerospace Engineering, and Civil and Environmental Engineering. The research topics are chosen each year to complement the research of faculty associated with the Princeton Center for Complex Materials.

The REU program is principally focused on providing students with the opportunity to carry out research at the forefront of materials science and engineering. In addition, we provide a proactive educational program consisting of short courses and lectures, designed to introduce students to the grand challenges of materials research. Special seminars also examine the role of science and engineering in society. Lab visits to both Princeton labs and industrial labs in the area are arranged.

The REU program will begin on Monday, June 10 and will end on Friday, August 9. Those students selected for the program will receive a weekly stipend (special restrictions apply for international students). Princeton University housing will be available to REU participants.

Applications for all science and Engineering disciplines are encouraged to apply. Deadline March 1, 2013

http://www.princeton.edu/pccmeducation/undergrad/reu/

# 2013 Summer REU (Research Experience for Undergraduates)

The Freedm Systems Center 2013 Summer REU program offers a research opportunity to domestic undergraduates from universities outside of the Center who are majoring in electrical and computer engineering, civil engineering, mechanical engineering, materials science engineering, computer science and related fields.

The undergraduate student will spend 10 weeks during the summer of 2013 conducting research at one of the Center's five partnering universities, experiencing different aspects of university research, and presenting their work at symposia.

This program is open to U.S Citizens and permanent residents only. Women and members of under-represented minority population are encouraged to apply.

A \$4,000 stipend is paid for the summer research experience. On-campus housing will be provided and up to \$500 for travel reimbursement for those students arriving outside of a 50 mile radius of the host university.

Applications for the Summer 2013 semester will be accepted until **March 8, 2013**. Please submit an application by choosing the application link to the right of the page or by clicking here. In addition to the application, students are required to:

- Submit a letter of interest indicating an understanding of the FREEDM mission, system and the student's future goals as well as linking how their past experiences and this research opportunity would help obtain those goals
- Unofficial transcript
- A letter of recommendation

http://www.freedm.ncsu.edu/index.php?s=5&p=139

# **Research Experience for Undergraduates (REU)**



College of Polymer Science and Polymer Engineering



Program Dates: May 20, 2013 - August 9, 2013

#### **Purpose:**

To investigate a fundamental question within the broad disciplines of polymer science and polymer engineering including chemistry, physics, characterization, and biomaterials.

## **Benefits:**

- \$7,000 stipend
  - \$2,000 used for on-campus housing expenses

# **Eligibility:**

- U.S. citizen or permanent resident
- Undergraduate student (preferably completing sophomore or junior year)
- Have not previously participated in the REU program at The University of Akron

## **Research Areas:**

- 1. Biomaterials
- 2. Chemistry
- 3. Engineering
- 4. Physics

The research team will consist of graduate students, interns, post doctoral research associates and faculty members from the College of Polymer Science and Polymer Engineering.

Application Deadline: February 1, 2013

# Program Activities and Requirements:

- Research
- Introductory lectures
- Faculty research seminars
- Visits to regional laboratories and companies
- Panel discussions
- Social activities
- 2 page paper about research project
- Oral and/or poster presentation at the Northeast Ohio NSF-REU Undergraduate Research Symposium

For more information please visit http://www2.uakron.edu/cpspe/reu.php or contact Kelli Fetter at (330) 972-7667 or

polymerreu@uakron.edu





# **HS-STEM Summer Internship Program**

2013 Summer Internship Information



Undergraduate students: \$5,000 stipend plus travel expenses Areas of research: Engineering, computer science, mathematics, physics, chemistry, biological/life sciences, environmental science, emergency and incident management, social sciences

#### Graduate students: \$7,000 stipend plus travel expenses

Areas of research: Nuclear engineering, physics, mathematics, statistics, computer sciences, systems engineering, electrical engineering, and material science

#### 10-week research experiences offered at:

National laboratories: Argonne, Idaho, Lawrence Berkeley, Lawrence Livermore, Los Alamos, Oak Ridge, Pacific Northwest, Sandia, Savannah River Other Research facilities: Homeland Security Studies and Analysis Institute, National Institute of Standards and Technology, Coast Guard Research and Development Center, and more!

U.S. citizenship required • Application deadline: January 15, 2013

www.orau.gov/dhseducation/internships Administered by Oak Ridge Institute for Science and Education

Link to application and eligibility minimum 3.3 GPA recommended

http://www.orau.gov/dhseducation/internships/eligibility.html

# Are you a math Major the American Mathematical Society has tons of REU's for students.

Check out their website to see – Deadlines vary by program site.



http://www.ams.org/programs/students/undergrad/emp-reu

University of Washington Physics Research Experiences for Undergraduates Summer 2013 June 24 - August 30

http://www.int.washington.edu/REU/apply13.html

**Cornell University** 

The National Science Foundation NSF has renewed our grant for a Research Experience for Undergraduates program in the Cornell Laboratory for Accelerator-based Sciences and Education (CLASSE), which encompasses the Laboratory for Elementary-Particle Physics (LEPP), the High-Energy Synchrotron Source (CHESS), and the Energy Recovery Linac (ERL)project. Details for the 2013 program will be similar to the 2012 program.

Under this program, approximately ten science and engineering students from around the country will be invited to participate in research at the Laboratory. In addition there are several other REU programs on campus with whom we share housing and programs.

The ten-week program will start **Monday June 3, 2013** and end **Friday August 9, 2013**. 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.

http://lepp.cornell.edu/Education/REU/WebHome.html

Rochester Institute of Technology

The NSF REU Program Imaging in the Physical Sciences is a new program that builds on the strength of the research and educational programs in the interdisciplinary Chester F. Carlson Center for Imaging Science at the Rochester Institute of Technology, extending a rich history of undergraduate research experiences with RIT students to students from beyond RIT's walls. Our program introduces young scientists to research in a highly interdisciplinary, team-oriented setting, preparing the students for the type of goal-oriented research they are likely to encounter in real-world environments. RIT is now the third largest undergraduate private technical university in the United States.

Imaging in the Physical Sciences is designed to draw students from all year levels and from a range of undergraduate majors, including students who have just completed their freshman or sophomore years. Qualified students will have completed the first year of a physical science, engineering, mathematics, or computer science program. Applicants will submit a transcript, resume, statement of research and career interests, and two letters of recommendation. Applications Due February 13<sup>th</sup>

## http://insight.cis.rit.edu/node/254

The Summer Research Experiences for Undergraduates at Xavier University of Louisiana is a ten-week program for students interested in obtaining first research experiences in Biology, Chemistry and Physics. Students will learn basic research skills and participate in ongoing research projects with both faculty and peer mentors. In addition, students will gain experience presenting their research in a variety of formats, culminating with a poster session at the end of the program.

Xavier University of Louisiana, a predominantly undergraduate institution located in New Orleans, is the only Historically Black and Catholic University in the western hemisphere. However, students of all backgrounds\* are encouraged to apply. Xavier graduates the most African American students in the nation with baccalaureate degrees in physics, chemistry and the biological sciences, and is a great place to be a scientist!

Application Deadline February 15<sup>th</sup> http://www.xula.edu/reu/appdead.php



# Interdisciplinary REU - Research Experiences for Undergraduates in the Structure and Function of Proteins

Application Deadline: March 1, 2013

Program Pending Funding

#### Program Dates:

June 1 - August 9, 2013

#### Participant benefits:

\$5000 stipend On-campus housing \$500 meal allowance \$300 travel allowance

Must be a U.S. Citizen or Permanent Resident to apply



Student participants will be engaged in an intensive ten-week period of hands-on experimental training and independent investigation in the areas of biochemistry, biophysics, cheminformatics, computational chemistry, enzymology, marine biology, molecular biology and plant biology. The research projects featured in this program all involve studies of the structure and function of proteins.

In addition to the research experience, students will participate in a series of weekly enrichment seminars focusing on scientific communication, graduate school admissions and scientific career options.

Rising juniors or seniors majoring in biochemistry, biology, biophysics, chemistry, computer science, engineering (chemical/biomedical), mathematics or a related discipline will be eligible for participation in the program.

Applications are available online at: http://pharmacy.umich.edu/reu.

For further information, please contact: Dr. Cherie R. Dotson crdotson@umich.edu / 734-615-6562 or Dr. Ronald W. Woodard rww@umich.edu / 734-647-8429

## http://pharmacy.umich.edu/reu/overview

NSF Summer Research Experience for Undergraduates (REU) Program in Cell, Developmental and Evolutionary Biology, UC Berkeley Application Deadline: **Monday, January 31, 2012** 

# Who should apply?

- Highly motivated students interested in biological research
- Students interested in the possibility of graduate school (Ph.D. rather than M.D.)
- Have completed at least one course in biology and one in chemistry before applying
- Undergraduates who will be attending a 4 year college or university in fall 2012 to work toward the Bachelor's degree. (Preference is given to students who will have completed their sophmore year by June 2012.)
- United States citizens or permanent residents (required by NSF guidelines)
- Able to show proof of health insurance for duration of the program

Applicants are not required to have previous research experience.

This program is aimed at promoting diversity in the national biosciences workforce. Students who share this goal, especially from underrepresented minority groups, economically disadvantaged backgrounds, or who are the first generation in their families to attend college are encouraged to apply.

# http://mcb.berkeley.edu/nsfreu/

Vanderbilt Institute for Nanoscale Science and Engineering (VINSE) brings ten students each summer to campus to work closely with VINSE faculty on research projects in cutting edge areas of nanoscale science and engineering. This summer program is funded by the National Science Foundation Research Experiences for Undergraduates (NSF-REU) program. Participation in the program provides students with a true interdisciplinary research experience in an environment where physicists, chemists, biologists, and all engineers collaboratively solve problems and create new scientific understanding. Weekly lunchtime meetings are held for all faculty and students that cover topics ranging from ethics and the responsible conduct of research to demystifying graduate school and the GRE examination. Each student works directly with VINSE faculty members and their research groups and has access to the VINSE laboratories, which are shared facilities available to all authorized users. All students are housed on the Vanderbilt Commons, a collection of ten residential halls on campus built in 2008 to house all first-year students. The Vanderbilt campus is centrally located being just one mile from downtown Nashville, which is one of the most vibrant and cosmopolitan mid-sized cities in the United States.

- The ten students per year participating in the VINSE REU program
- Choose from ~ 30 projects available each year for 10 positions, giving increased flexibility to match student interests
- Receive a \$5000 stipend, room and board, plus a \$400 travel allowance to offset the cost of getting to Nashville
- Undergo informal training on scientific writing and giving oral presentations
- Participate in a field trip to the Oak Ridge National Laboratory Center for Nanophase Materials Sciences
- Participate in optional outreach opportunities with local high school students
- Enjoy weekly social activities and a final banquet
- Participate in a poster competition to receive a travel award to attend a national professional meeting to present their work

Students who are US Citizens or Permanent Residents majoring in science or engineering are eligible to apply to the REU program. Students from underrepresented groups and institutions are strongly encouraged to apply. Students are to be notified of their acceptance into the program by email by mid-March annually. Selections are primarily based on academic standing and faculty recommendations.

Application deadline: February 15, 2013. Program dates: May 27, 2013 - August 2, 2013.

http://www.vanderbilt.edu/vinse/reu/

#### MURF UNDERGRADUATE RESEARCH FELLOWSHIPS

The MURF program aims to increase the participation of underrepresented students (such as African American, Hispanic, and Native American, females who are underrepresented in their discipline, or first-generation college students) in science and engineering Ph.D. or M.D./Ph.D. programs and to make Caltech's programs more visible to students not traditionally exposed to Caltech.

Eligibility: Students must be current sophomores through non-graduating seniors and must be U.S. citizens or U.S. permanent residents. A minimum GPA of 3.2 is required.

Competitive applicants will have completed sophomore-level courses in desired

research field, have demonstrated through academic and/or co-curricular activities a passion for research, and can articulate how their research interests align with Caltech's research areas. The most competitive applicants will have prior research experience.

Support: MURF students will receive a \$6000 award for the ten-week program. An additional \$500 housing and travel supplement will be provided.

Application: Online applications are due January 9 2013.

For more information, visit www.murf.caltech.edu.

AMGEN SCHOLARS PROGRAM

Caltech's Amgen Scholars Program is geared towards students in biology, chemistry, and biotechnology fields. Some of these fields include biology, biochemistry, bioengineering, chemical and biomolecular engineering, and chemistry.

Eligibility: Students must be current sophomores through non-graduating seniors, must be attending a four-year university, and must be U.S. citizens or U.S. permanent residents. A minimum GPA of 3.2 is required.

Support: Amgen Scholars will receive a \$5500 award, round-trip air transportation, a generous housing allowance, and a food allowance.

Application: Online applications are due February 15, 2013.

For more information, please visit www.amgenscholars.caltech.edu

CAL TECH Summer Undergraduate Research Fellowships at Cal Tech

http://www.surf.caltech.edu/applicants/application/non-caltech.html

Since 1992, the Leadership Alliance has encouraged students from groups traditionally underrepresented in the sciences, engineering, social sciences and humanities to pursue research careers in the academic, public and private sectors.

**SR-EIP** provides undergraduates with training and mentoring in the principles underlying the conduct of research and prepares them to pursue competitive applications to graduate schools.



Application Deadline: February 1, 2013

http://www.theleadershipalliance.org/Programs/SummerResearch/EligibilityRequirements/tabid/302/D efault.aspx

# Brandeis University Research Experience for Undergraduates (REU) Program

http://www.brandeis.edu/mrsec/edoutreach/reuprogram.html

The REU program includes:

- a stand-alone, substantive research project, appropriate for a 10-week period for each student
- \$3,800 stipend plus all costs for travel and housing
- interaction with a faculty member and daily interaction with a graduate student mentor
- a full day faculty-led workshop on various research topics, ethics in research, and an early career panel
- emphasis on professional development, including written and oral skills and preparing for a career in science and engineering
- end-of-summer REU poster session in which students present research results and conclusions
- social activities and visits to local area attractions

# Deadline Feb 13, 2013



https://intern.nasa.gov/

The Summer 2013 internship application is open from November 1, 2012 to March 15, 2013.

https://intern.nasa.gov/ossi/web/public/main/index.cfm?solarAction=view&subAction=content&content ntCode=HOME\_PAGE\_INTERNSHIPS

#### UC Riverside -

UC RIVERSIDE 2013 PROGRAM DATES: June 17 - August 16, 2013 The NSF-funded Research Experience for Undergraduates (REU) Site is geared towards providing opportunities to students interested in the cellular and molecular biology of plants and their pathogens. The program is especially interested in exposing students from two- and four-year colleges with limited research infrastructure to the excitement and career options that studies of plant and plant pathogen biology offers, but students from all colleges are welcome to apply. The program is sponsored by the UC-Riverside Center for Plant Cell Biology (CEPCEB) which, in association with the Institute for Integrative Genome Biology (IIGB) and other college departments, includes many faculty that study plants, plant pathogens (fungi, bacteria, viruses, nematodes), other microbes, and allied fields.

Typically about 12 students are accepted into the nine-week summer residential program. Students live on campus and receive a stipend of \$530 per week. The program also covers transportation costs to Riverside.

The program begins with a one-week series of workshops, in which students are introduced to techniques and approaches used to study plant and plant pathogen cells, including genetics, molecular biology, genomic and bioinformatic analyses, and confocal microscopy. During the first week students hear presentations by potential faculty mentors, and select their home labs for the remaining nine weeks of the summer. During the remaining nine weeks of the program, students participate in workshops to enhance learning skills and their professional development, in addition to conducting laboratory research.

## Eligibility:

Undergraduates Interested in Discovering Research

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 before the summer begins.

Application Deadline Feb 24<sup>th</sup>

http://cepceb.ucr.edu/reu/

#### UC DAVIS

Program Description:

The CBST hosts a Summer Internship Program for Undergraduate students. For a period of 8 to 12 weeks students get involved in on-going research projects in the following areas: Bioimaging, Molecular & Cellular Biophotonics and Medical Biophotonics.

Majors: Chemical, Biochemical or Biomedical Engineering, Biology, Chemistry, Physics, Biophysics, Biochemistry, Molecular Biology or related.

**Stipend and Lodging:** Students are awarded **\$500/wk** for the duration of their summer internship. This stipend is intended to cover the cost of living, including housing, food and local transportation during the internship (CBST is NOT responsible for your housing arrangements

Link <u>http://cbst.ucdavis.edu/education/undergraduate/research/program-details</u> Citizenship: US Citizens and Permanent Residents

Deadline March 8<sup>th</sup>

# REU in Mathematics, June 3 - July 26, 2013

The mathematics REU at Fresno State is an exciting eight-week long program with the following goals:

- actively involve students in mathematics research
- improve student writing, presentation, and technical skills through structured workshops
- increase awareness and intention to participate in mathematics graduate degree programs among underrepresented minority students and other participants.

We provide participants with free housing during the REU, a \$3500 stipend, a \$500 travel allowance to the REU, and a \$500 travel allowance to a conference.

We organize a series of guest lectures in order to expose our participants to a wide range of research topics in mathematics.

Students will have opportunities to participate in social activities such as hikes to the nearby Sierra Nevada mountains, pickup soccer, ultimate frisbee, and backyard barbecues.

http://www.fresnostate.edu/csm/math/reu/

Deadline march 1, 2013

# The Department of Chemistry at the University of Illinois

The Department of Chemistry is now accepting applications for the Summer Research Experience for Undergraduates program, which is supported by the U.S. National Science Foundation and the 3M Foundation.

Undergraduates planning to obtain Bachelor of Science or Bachelor of Arts degrees in chemistry or related fields between January 1, 2014 and August 31, 2015 are encouraged to apply to do summer research in the Department of Chemistry. Opportunities are available in all areas of chemistry: analytical, chemical biology, inorganic, materials, organic, physical, and theoretical. Applications completed by 11:59 PM, March 1, 2013 will be given full consideration. We particularly encourage students who do not have prior research experience or who are members of groups under-represented in the chemical sciences to apply.

Deadline March 1, 2013 http://www.scs.illinois.edu/reu/

The REU program at San Jose State University, called Research by Undergraduates using Molecular Biology Applications (RUMBA), will engage eight undergraduate students each summer in a ten-week research program focused on molecular biology applications. Faculty members with expertise in the areas of genetics, molecular evolution, molecular environmental microbiology, cell and molecular developmental biology, and forensics will mentor students.

http://www.biology.sjsu.edu/rumba/NSF-REU\_RUMBA/Application\_Process.html

# INTEGRATIVE CELL AND MOLECULAR BIOLOGY Summer Undergraduate Research Program

## UNIVERSITY OF NOTRE DAME

## May 28 – August 4, 2013

**The Program:** The Department of Biological Sciences at the University of Notre Dame is sponsoring a NSF Research Experience for Undergraduates (REU) program during the summer of 2013 *pending funding.* The focal point of the proposed projects is Integrative Cell and Molecular Biology.

**Program Activities:** The program consists of 10 weeks of full-time research, a research proposal process, a weekly seminar program, regular group meetings in their research labs, special workshops on career choices in the sciences, integrative research, ethics, problem solving, and scientific writing. Lastly, participants will give a formal presentation at the end of the summer in the REU Summer Symposium.

**Support:** The award consists of a \$5000 stipend and includes lab supplies, housing on campus, meals, and travel (travel up to \$500).

**<u>Eligibility</u>**: Current freshmen, sophomores, juniors and non-graduating seniors majoring in biological sciences, who are U.S. citizens or permanent residents, are eligible to apply. Underrepresented minority students, disabled students, and students from small colleges without graduate biology programs are encouraged to apply.

**Application Materials:** Applications materials must be emailed or postmarked by February 1, 2013 and can be found at **http://nd.edu/~biosreu/**. Applications should include (1) a cover letter stating your career goals, research interests and strengths, (2) a completed application form, (3) an official transcript and (4) two recommendation letters from science faculty that must be emailed directly from the faculty.

<u>Selection</u>: Preference will be given to students whose primary interest is a career in biological research, and who will pursue a Ph.D. Notification of award will occur in late March or early April.

http://www3.nd.edu/~biosreu/

# **RESEARCH PROGRAM for L.A. AREA** COMMUNITY COLLEGE STUDENTS SUMMER TERM 2012

The Research Experiences for Undergraduates (REU) Program in the Department of Chemistry & Biochemistry at CSULA focuses primarily on students from Los Angeles Basin community colleges. The REU Program gives students the opportunity to perform meaningful research in the chemical sciences alongside our faculty and undergraduate students. Areas of research include organic synthesis, biochemistry, inorganic synthesis, atmospheric chemistry,





environmental monitoring, NMR spectrometry. The



# STIPEND = \$5000DATES: JUNE 26 - AUGUST 31

# APPLICATION DEADLINE IS APRIL 16<sup>th</sup>, 2012

# Participants will be notified of selection by May 14th

An application form (PDF format) and information on specific faculty research interests can be found at www.calstatela.edu/dept/chem/reu.htm

For more information, contact: Dr. Scott Nickolaisen, Dept. of Chemistry & Biochemistry, CSULA, (323) 343-2382 e-mail: snickol@calstatela.edu or Ms. Vicki Kubo-Anderson, (323) 343-2324

