



Research Experiences for Undergraduates (REU) Sites

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Research Experiences for Undergraduates (REU) Sites

The Research Experiences for Undergraduates (REU) program supports active research participation by undergraduate students in any of the areas of research funded by the National Science Foundation.

The REU is a Foundation-wide program, but each directorate handles its own competition and manages the resulting awards. More details at:

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5517&form=fund

The SBE REU Sites program is administered by Dr. Fahmida N. Chowdhury (fchowdhu@nsf.gov)



SBE REU Sites

- ▣ One competition for the entire SBE Directorate
- ▣ REU Deadline fourth Wednesday of August

REU Sites are based on independent proposals to initiate and conduct projects that engage a number of undergraduate students in research.

REU Sites may be based in a single discipline or academic department, or on interdisciplinary or multi-department research opportunities with a coherent intellectual theme.

Proposals with an international dimension are welcome.



SBE REU Sites

This link displays the currently active SBE REU Sites.

<http://maps.google.com/maps/ms?ie=UTF8&hl=en&msa=0&msid=115936643044336236060.00046ae5572e74aeadc40&ll=42.297627,-71.72287&spn=0.738456,1.230469&z=10>

Typical award amount: \$200,000 - \$400,000, three years. Cohorts of 8-12 undergraduate students are involved. Topics span all of SBE sciences, including cross-disciplinary projects within and beyond SBE.



SBE REU Sites

- ▣ **Important:** *REU Supplements* may be requested for ongoing NSF-funded research projects or may be included as a component of proposals for new or renewal NSF grants or cooperative agreements. For REU Supplements information and submission procedure, please contact the managing program director for the project *to which the supplement is being requested*.
- ▣ **Important:** Undergraduate student participants in either Sites or Supplements must be citizens or permanent residents of the United States or its possessions.



SBE REU Sites

- ▣ The REU program encourages projects with an international dimension. Appropriate REU Site and REU Supplement proposals can be considered for co-funding by NSF's Office of International Science and Engineering (OISE).
- ▣ Successful international REU projects include (1) true intellectual collaboration with a foreign partner and (2) benefits that are realized from the expertise, specialized skills, facilities, phenomena, or other resources that the foreign collaborator or research environment provides.



SBE REU Sites

- ▣ One PI and co-PI maximum
- ▣ Other research supervisors listed as non-Co-PI Senior Personnel
- ▣ No more than one month of salary for the PI, Co-PI and Senior Personnel combined
- ▣ Students cannot be charged application fee for applying to enroll in an REU Site
- ▣ REU Sites may not charge students tuition as a *requirement* for participation



SBE REU Sites

Review Criteria

What is the intellectual merit of the proposed activity?

Reviewers are asked to interpret the two basic NSF review criteria in the context of the REU program.

1. How important is the proposed activity to advancing knowledge and understanding within its own field or across different fields? How well qualified is the proposer (individual or team) to conduct the project? (If appropriate, the reviewer will comment on the quality of the prior work.) To what extent does the proposed activity suggest and explore creative, original, or potentially transformative concepts? How well conceived and organized is the proposed activity? Is there sufficient access to resources?



SBE REU Sites Review Criteria

What are the broader impacts of the proposed activity?

2. How well does the activity advance discovery and understanding while promoting teaching, training, and learning? How well does the proposed activity broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.)? To what extent will it enhance the infrastructure for research and education, such as facilities, instrumentation, networks, and partnerships? Will the results be disseminated broadly to enhance scientific and technological understanding? What may be the benefits of the proposed activity to society?



SBE REU Sites Other Issues for Review

Integration of Research and Education

One of the principal strategies in support of NSF's goals is to foster integration of research and education through the programs, projects, and activities it supports at academic and research institutions. These institutions provide abundant opportunities where individuals may concurrently assume responsibilities as researchers, educators, and students and where all can engage in joint efforts that infuse education with the excitement of discovery and enrich research through the diversity of learning perspectives.



SBE REU Sites

Integrating Diversity into NSF Programs, Projects, and Activities

Broadening opportunities and enabling the participation of all citizens -- women and men, underrepresented minorities, and persons with disabilities -- is essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and supports.



SBE REU Sites

Additional Review Criteria

1. Appropriateness and value of the educational experience for the student participants
2. Quality of the research environment
3. Appropriateness of the student recruitment and selection plans
4. Quality of plans for student preparation and for follow-through
5. For REU Sites: appropriateness and cost-effectiveness of the budget
6. For REU Sites that request extra funding for the supplementary "Ethics in Science or Engineering" component: appropriateness and quality of the proposed ethics activities.



SBE REU Sites Themes and Topics

Any fields, subfields or areas that fall under the general scope of SBE sciences are eligible.

Interdisciplinary or multidisciplinary themes within SBE sciences and beyond are also welcome.

For lists of areas and programs within the two SBE divisions, see

Social and Economic Sciences (SES):

<http://www.nsf.gov/div/index.jsp?div=SES>

Behavioral and Cognitive Sciences (BCS):

<http://www.nsf.gov/div/index.jsp?div=BCS>



SBE REU Sites (Examples)

Santa Fe Institute

<http://www.santafe.edu/education/fellowships/undergraduate/>

Possible focus areas include adaptive computation; computational aspects of complexity; energy and information in biological computation; scaling laws in complex phenomena; network structure and dynamics; robustness and innovation in biological and social systems; and the dynamics of human social interactions including state and market formation, economics as a complex system, and the evolution of language.



SBE REU Sites (Examples)

University of Alabama at Birmingham

<http://www.cis.uab.edu/UABCrimeREU>

REU Site: Using the Social Sciences, Natural Sciences, and Mathematics to Study Crime

This 8-week summer program is designed for undergraduate students who want “hands-on” research experience and for those who are interested in pursuing post-graduate degrees in fields such as Criminal Justice, Forensic Science, Computer Science, Sociology, Public Policy, Biology, and Chemistry. The program is funded by the National Science Foundation (grant # SMA-1004953).



SBE REU Sites (Examples) University of Nevada, Reno

<http://www.unr.edu/undergraduateresearch/downloads/REU2010Flyer.pdf>

**Research Experience for Undergraduates
University of Nevada, Reno
Academy for the Environment and Great Basin Institute**

**From Lake Tahoe to Pyramid Lake: Natural Resource Issues
in the Sierra Nevada and Great Basin Regions**





SBE REU Sites (Examples)

Yale University

<http://www.yale.edu/caplab/internship/Home.html>

Comparative and Developmental Origins of Social Cognition

The Comparative Cognition Laboratory and the Social Cognitive Development Laboratory in the Psychology Department at Yale University will offer a joint summer internship program for qualified undergraduate students. This 10-week internship program is funded by the National Science Foundation (NSF) Research Experiences for Undergraduates (REU) Program and Yale University.



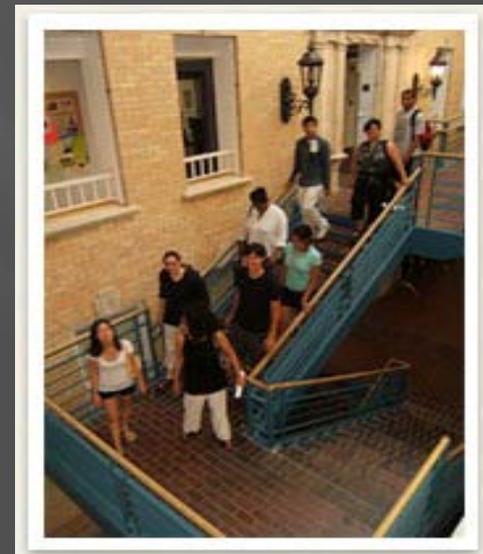
SBE REU Sites (Examples) University of North Texas (UNT)

<http://anthropology.unt.edu/anthatunt-summernsfprogram.php>

REU Site on Cultural Anthropology

The Purpose of UNT's NSF Summer Research Methods Program is Twofold:
To promote social anthropologically-based scientific research methodologies among under-represented groups as long-term career objectives, and

To develop a collaborative articulation between undergraduate students and research/ mentoring programs such as the McNair Scholars program.





SBE REU Sites

If you have questions that are not addressed in the REU solicitation

(<http://www.nsf.gov/pubs/2009/nsf09598/nsf09598.htm>),

please feel free to contact Dr. Fahmida N. Chowdhury at fchowdhu@nsf.gov