Join the team!

Research Experiences for Undergraduates in the Mathematical Sciences
Apply for summer research opportunities and push forward the boundaries of the mathematical sciences!

There are approximately 50 programs led by faculty mentors at colleges and universities across the United States in many areas of mathematics and statistics that allow undergraduate students to actively participate in research. In addition to exposure to exciting material and mentoring by faculty, participants will participate in professional development activities and receive:

- room & board
- travel support
- stipends


Students from groups historically under-represented in the mathematical sciences are encouraged to apply.
NSF Research Experience for Undergraduates (NSF-REU)

Frequently Asked Questions

What is REU?

REU is an NSF-funded program where diverse colleges and universities host visiting students (usually 8-10 students) to conduct research during the summer. This program was created to provide meaningful research opportunities to students who wouldn’t otherwise have them.

Where is REU?

There are over 600 REU sites, spanning 16 different general research areas, across the United States and a few that are in foreign countries.

How long is the program?

Usually 10 weeks, but can be adjusted in some cases to accommodate the semester/quarter system, e.g., if your home school is on semesters and the REU site is on quarters, or vice versa.

Do the REU summer researchers get paid?

Yes! If you are accepted to a program, you will receive travel reimbursement and a stipend for the summer. In most cases, housing will be provided in dormitories or comparable facilities on or near campus.

What areas of research are available?


More information can be found on the NSF website:

http://www.nsf.gov/crssprgm/reu/reu_search.jsp

Do I need experience in the area of research?

You do not need previous research experience, but it is best if you have already taken classes in the area of research you are interested in, e.g., a chemistry or biochemistry major will be best matched in a chemistry program or one that is closely related, perhaps materials or some of the programs in biological sciences.

What type of research will I be doing once I am accepted to a site?

The Directors of the REU program will pair up the incoming students with participating faculty members, doing their best to match research interests. When you join a research group for the summer, you will work in the area of research that the group specializes in. Most students will work on a project that is ongoing in the group in order to have the most valuable research experience in 8-10 weeks.

What type of guidance and mentoring will I receive?

You will work very closely with a faculty member and often a graduate student, postdoctoral researcher or other group member. You will be given the necessary scientific and safety training to conduct advanced level research.

Will I get to publish my research?

In many cases, REU students are co-authors on publications resulting from the experiments they conduct over the summer. Sometimes the project is not ready for publication until after the student has left the program.
Is it all research, 24/7?

No, summer research is considered "full time", but work hours vary from group to group. You will also have time to explore the area the university is located in, and there are often planned group seminars, tours, and other outings.

Will this experience help me get into graduate school?

Yes! Your summer research advisor will often provide you with a supportive letter of recommendation and admissions committees recognize the NSF REU as a distinction that will mark you as a good candidate. In addition, many REU programs will include workshops on how to maximize the competitiveness of your graduate school application.

Will I be able to present the work I complete over the summer?

Yes! There is often a forum, such as a poster session, at the end of the summer for students to showcase their work. In addition, you might have the opportunity to present your work at a scientific meeting.

What kind of professional development can I expect?

Programs vary widely. Some will offer a formal series of workshops or seminars. Beyond that, the chance to work closely with graduate students and get to know and advisor is an important first step in your career as a scientist in any field. You will also receive valuable training in your area of research with regard to instruments and techniques specific to the field.

How do I apply?

Each site has its own application system, so you have to go to the sites that interest you and fill out an application for each one. The due dates are all slightly different (often in February or March), as are the timelines for application review. You can expect to hear back in March or April. There is no application fee, but you should look carefully at the various programs and apply to the ones that are the best match for your interests. You will probably have to provide transcripts, a personal statement, and one or more letters of recommendation.

What should I do if I am admitted to one program, but have not heard back from another one in which I am also interested?

Be honest with your contacts at both programs. It's OK to contact the second one and ask when you can expect to hear back. And it's OK to contact the admitted program to ask if you can have more time to make an acceptance decision, but understand that they may not be able to grant that request. In some cases, you might have to withdraw your application from one program if you accept a position. Most importantly, once you accept one position, you are obligated to attend. It reflects badly on you and creates difficulties for the REU site if you accept a position and then later back out.
Research, Education and Economics

The Research, Education and Economics (REE) mission area has leadership responsibility for advancing scientific knowledge related to agriculture through research, extension, and education. REE is dedicated to the creation of a safe, sustainable, competitive U.S. food and fiber system, as well as strong communities, families, and youth through integrated research, analysis, and education.

March 2013

Agricultural Research Service (ARS)
Economic Research Service (ERS)
National Agricultural Statistics Service (NASS)
National Institute of Food and Agriculture (NIFA)
USDA Pathways Programs

The USDA Pathways Programs offers clear paths to paid Federal internships for students from high school through post-graduate school as well as recent graduates, and provides meaningful training and career development opportunities for individuals who are at the beginning of their Federal service. Pathways provides streamlined programs for students and recent graduates to get started in the Federal workforce and for Federal agencies to recruit, hire, develop and retain these individuals.

Executive Order 13562 establishes a Pathways framework with three clear program paths:
- Internship Program
- Recent Graduates Program
- Presidential Management Fellows Program

The regulations were published on May 11, 2012, and became effective on July 10, 2012.

All job opportunity announcements are posted on www.usajobs.gov/studentsandgrads/

Internship Program

This program is for current students enrolled in a wide variety of educational institutions from high school to graduate level, with paid opportunities to work in agencies and explore Federal careers while still in school.

Eligibility: Individuals currently enrolled in high school, college, professional, technical, vocational and trade school; advanced degree programs; or other qualifying educational institution pursuing a qualifying degree or certificate.

Program Administration: May be hired on a temporary basis for up to one year for an initial period or for an indefinite period, to complete educational requirements. May work part-time or full-time. Must sign a participant agreement that sets forth expectations. There is no grade level restriction.

Program Completion: May be converted to a permanent position within 120 days of successful completion of the program. To be eligible for conversion, Interns must complete at least 640 hours of work experience, complete their degree or certificate requirements, meet the qualifications for the position to which the Intern will be converted, meet the requirements specified in the participant agreement, and perform their job successfully.

For more information, please contact us at:
USDA, REE, AFM
Human Resources Division
5601 Sunny Side Avenue
Beltsville, Maryland 20705-5105
(301) 448-7811
(301) 830-0363
recruitment@ars.usda.gov
CUTTING EDGE SCIENCE

INTELLECTUAL INDIVIDUALS

TOP NOTCH RESEARCH

FLEXIBILITY

WORK LIFE BALANCE

The San Francisco Bay Area provides an exceptional range of resources for Lawrence Livermore National Laboratory employees, including access to major universities and research and development communities. Located in the East Bay Area, in the heart of the Livermore Valley, the Laboratory is just a short distance from major metropolitan areas including San Francisco, Oakland, and San Jose. The city of Livermore, surrounded by lush vineyards and scenic rolling hills, offers a rural suburban environment with easy access to cities, beaches, and mountains.

OPPORTUNITIES at THE LAB

LLNL INTERNSHIPS & POSTDOC PROGRAMS
There are a multitude of opportunities for you to choose from at LLNL. Whether you are faculty, postdoc, PhD, undergraduate, or a recent graduate student, there is a program for you. Take a look at the options below and see which one fits your educational status and career interests.

Please visit the respective websites listed for more information about the programs, session dates, application deadlines, and other eligibility requirements. You can also visit our website at scholars.llnl.gov for additional information.

**Lawrence Fellow Program**
Postdoc within 5 years of graduation. U.S. citizenship not required.
[llnl.fellowship.gov](https://llnl.fellowship.gov)

**LLNL Student Internship Program**
Students or recent grads. U.S. citizenship not required.
[llnl.studentship.gov](https://llnl.studentship.gov)

**Livermore Graduate Scholar Program**
PhD candidates. U.S. citizenship not required.
[llnl.gsp.gov](https://llnl.gsp.gov)

**LLNL Postdoc Program**
Postdoc within 5 years of graduation. U.S. citizenship not required.
[llnl.postdoc.gov](https://llnl.postdoc.gov)

**DOE Office of Science Undergraduate Laboratory Internships**
Students or recent grads. Must be a U.S. citizen or permanent resident.
[science.energy.gov/wdts/sofli](https://science.energy.gov/wdts/sofli)

**DOE NNSA Stewardship Science Graduate Fellowship**
PhD candidates. Must be a U.S. citizen or permanent resident.
[nlrinst.org/sgf/foasst-doe-nnsa-sgf](http://nlrinst.org/sgf/foasst-doe-nnsa-sgf)

**DOE Office of Science Graduate Student Researcher Program**
PhD candidates. Must be a U.S. citizen or permanent resident.
[science.energy.gov/wdts/sgsr](https://science.energy.gov/wdts/sgsr)

**DOE Scholar Programs**
Students or recent college grads. Must be a U.S. citizen.
[crise.energy.gov/descholars](https://crise.energy.gov/descholars)

**NNSA Minority Serving Institutions Internship**
Participating minority-serving institution. Must be a U.S. citizen or permanent resident.
[nnso.energy.gov/federalemployment/sojobs/studentsopportunities/rsi](https://nnso.energy.gov/federalemployment/sojobs/studentsopportunities/rsi)

**Department of Homeland Security HS-STEM Summer Internship**
Undergraduates majoring in STEM fields. Must be a U.S. citizen.
[dhs.gov/national-hs-steam-summer-internship-program](https://dhs.gov/national-hs-steam-summer-internship-program)

**UC Lab Fees Research Program**
Faculty and Lab Staff.
[ucsp.edu/research-initiatives/programs/lab-fees/index.html](https://ucsp.edu/research-initiatives/programs/lab-fees/index.html)
Designed for college juniors and seniors who want to spend a summer gaining practical experience in marine and environmental science.

www.woodsholediversity.org
The Program
Each summer, PEP brings students to Woods Hole, Massachusetts for an integrated program. Four weeks of academic courses are followed by six-to-eight-week research internships. PEP participants also engage in seminars, workshops, an at-sea experience, field trips, career development activities, and lectures at the participating science institutions. Students receive four hours of credit through the University of Maryland Eastern Shore, with or without approval, through their own home institution. Housing is provided. Participating students have their tuition covered and receive a stipend, room and board, and travel allowance.

Who Is Eligible
PEP is designed for college students entering their junior or senior year who have coursework in the oceanography/marine sciences, engineering, environmental science, or some combination of biology, chemistry, geology, and physics. PEP welcomes applications from students of all backgrounds. Students from groups underrepresented in marine and environmental science are especially encouraged to apply, including African American, Hispanic, Native American, Alaska Native, and Asian Pacific Island students.

Who We Are
The Partnership Education Program (PEP) is a project of the Woods Hole Diversity Initiative (www.woodsholediversity.org), a multi-institutional effort to promote diversity in the Woods Hole science community. Participating institutions are: NOAA's National Marine Fisheries Service, Woods Hole Oceanographic Institution, U. S. Geological Survey, Sea Education Association, Marine Biological Laboratory, and Woods Hole Research Center. Our primary academic partner is the University of Maryland Eastern Shore.

How To Apply
Visit www.woodsholediversity.org/pep for application materials and instructions. Application materials for the following summer are posted in January.

Contact Us
For more information, contact PEP Manager George Liles, NOAA Fisheries (George.Liles@noaa.gov or 508-495-2037).