Adventures in Learning

Whether for elementary-school students, high-school students, undergraduates, or graduate-level researchers, a variety of learning opportunities are available at Brookhaven National Laboratory.

- Research programs
- Summer lectures and classes
- Annual science fair
- In-service teacher training
- Science Museum programs
- Laboratory tours
- Guest speakers
- Whiz-Bang Science Show
- Contests

For more information about Brookhaven's educational programs and application procedures, visit:

www.bnl.gov/bnlweb/educ_museum.html

Or contact:

Office of Educational Programs
(631) 344-3054
www.scied.bnl.gov

Science Museum
(631) 344-4495
www.pubaf.bnl.gov/Museum/Science_museum.html

Diversity Office
(631) 344-3318
www.bnl.gov/diversity/

Speakers Bureau
(631) 344-2345
www.bnl.gov/bnlweb/speakers.html

Tours
(631) 344-2400
www.pubaf.bnl.gov/Tours.html

Model bridge builders and judges.

A View of Brookhaven

Brookhaven National Laboratory is a multipurpose research laboratory funded by the U.S. Department of Energy. Located on a 5,300-acre site on Long Island, New York, the Laboratory operates large-scale facilities for studies in physics, chemistry, biology, medicine, applied science, and advanced technology.

Brookhaven's 3,000 scientists, engineers, and support staff are joined each year by more than 4,000 visiting researchers from around the world.

An aerial view of Brookhaven Lab.

P.O. Box 5000
Upton, NY 11973-5000
www.bnl.gov

BROOKHAVEN
NATIONAL LABORATORY

managed for the U.S. Department of Energy
by Brookhaven Science Associates, a company
founded by Stony Brook University and Battelle

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Opportunities for Pre-College Students and Teachers

These programs are designed to spark students' interest in science.

Opportunities for Research

Each summer, high-school students work side-by-side with scientists in Brookhaven's world-renowned facilities on cutting-edge research in physical science, life science, and technology development.

Students can also participate in research-based classes and lectures, and teachers are offered in-service training in hands-on workshops.

Science Fairs and Contests

More than 600 students from schools in Suffolk County compete each year in Brookhaven's Elementary School Science Fair. Projects range from design and construction of innovative paper airplanes to analyzing which vegetables have the most bacteria.

Middle- and high-school students learn principles of science and engineering by building model bridges and magnetically levitated vehicles, which are then tested competitively at the Laboratory.

Contest and science fair workshops are offered for students and teachers.

Museum Programs and More!

Over 14,000 children and teachers visit Brookhaven's on-site Science Museum each year for hands-on lessons in electricity, radiation, light, and more.

Museum staff and scientists also travel to schools for educational activities.

Undergraduate Programs

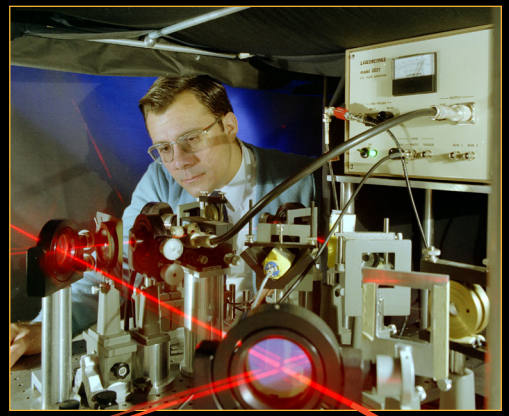
Undergraduates apply to spend a mini-semester, semester, or summer conducting hands-on research in a variety of fields including chemistry, physics, engineering, biology, nuclear medicine, applied mathematics, computers, and environmental science. Brookhaven scientists supervise and guide participants.

Undergraduate students from schools throughout the U.S. are eligible to participate. There are special opportunities for community college students, pre-service teachers, and for women and minorities.

Most undergraduate programs provide stipends as well as housing accommodations if needed. Academic credit may be available through participants' schools.

While at the Laboratory, students also attend lectures, seminars, tours, and cultural activities, and take advantage of Brookhaven's employee recreation programs.

About 125 students a year are accepted into undergraduate programs. University classes may plan day trips to Brookhaven to visit the Lab's nationally acclaimed science facilities and hear scientists discuss their current research.



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Graduate-Level Research

Graduate students and postdoctoral fellows take advantage of the Laboratory's resources in training for careers in science.

In many cases, access is provided through research collaborations between faculty from academic institutions and Brookhaven. These collaborations are focused on use of the Laboratory's world-class facilities.

Recently, for example, facility users at the National Synchrotron Light Source included more than 700 graduate students, conducting research in areas such as condensed-matter physics, materials science, structural- and photo-chemistry, and structural biology.

Other Laboratory "big machines," such as the Alternating Gradient Synchrotron and the Relativistic Heavy Ion Collider (RHIC), also support collaborations including graduate students and postdoctoral fellows. As the most powerful machine of its type in the world, RHIC will play a key role in training the next generation of nuclear and particle physicists and accelerator scientists and engineers.

Many graduate students also participate in research through individual arrangements between their thesis advisors and Laboratory staff.

Other Laboratory programs provide special graduate-level training in areas such as accelerator engineering, and offer graduate research experiences for members of groups that are underrepresented in science and engineering.