

**Laboratory Learning Program for High School Students**  
Information for department managers and faculty

**Introduction:**

In 2011, a pilot program was implemented for high school students to participate in educational research experiences with Princeton faculty. This pilot program was developed based on recommendations from a working group to address issues of safety, compliance, equity, and consistency for high school students in Princeton laboratories with input from the Academic Managers Group and the Office of the Provost. While there have been both formal and informal research education programs for high school students in the past, Princeton University policy requires that all high school laboratory research experiences need to be clearly identified as educational programs, rather than work, and meet the New Jersey Department of Labor standards of an educational program in science.

An “educational program in science” is a program in which high school students may participate in science projects or activities in research facilities with the approval of the student’s school and under the supervision of adult sponsors at the facilities. NJ law requires that an educational program in science include:

- supervision;
- lab safety training;
- parental consent; and
- high school approval for each participant.

Thus, any informal practice of inviting high school students to study alongside a faculty mentor will now need to occur under this structure, which provides for safety, compliance, and equity. For the ease of reference, the new structure was named “the Laboratory Learning Program”. This program will allow for the mentorship of high school students in research laboratories and meet the four requirements above.

High school students may not be hired to work in laboratories in any capacity or in any employment category, including casual hourly.

**Laboratory Learning Program Overview:**

**Mentorship**

- Mentorship and supervision shall be provided by the faculty sponsor in conjunction with appropriate members of the research laboratory (for example, research staff, post-docs, or graduate students)
- Each student contributes to a research project related to the research goals of that particular laboratory
- Students are integrated into the daily research experience and other appropriate educational activities

#### Eligibility

- Research opportunities are awarded on a competitive basis
- Student must be a US citizen or Permanent Resident Alien (PRA)
- Students must be 16 years of age or older
- Students who are historically underrepresented in the sciences and engineering (i.e., African-American, Hispanic, Native Pacific Islander, Native American, and women) are especially encouraged to apply
- Students must have reliable transportation to and from the laboratory; housing is not provided through this program
- Parental consent for participation must be provided
- High school approval for participation must be provided

#### Additional Criteria

- Safety training led by Princeton University Environmental Health and Safety and laboratory-specific training led by laboratory personnel must be completed prior to beginning research and safe research practices must be adhered to throughout the research experience. Scientists and engineers routinely use equipment and biological and chemical substances that may pose certain risks to human health and safety
- The research opportunity for high school students is designed to comply with all applicable federal and state regulations
- Parents of participating students will be required to sign a permission form which outlines the research activities and provides consent for their children's participation in these activities
- Student participation in the research is restricted to normal working hours when appropriate supervision is provided, for example Monday to Friday, 8:30 am - 5 pm

#### **Application Processing:**

A [website](#) with general information about the Laboratory Learning program will be maintained by the Office of the Dean for Research. Eligible students who are interested in an individualized research experience at Princeton should contact a faculty member in his/her area of interest to see if an appropriate opportunity can be identified, and if so, obtain the support of a faculty mentor.

After a mentorship agreement has been made, departments and faculty members are asked to direct students to the website for information and forms needed for the application process. For participation in the program, all students must submit the following completed forms: the [Parent Consent Statement and Insurance Documentation](#) form (to be completed by the faculty mentor and the parent or guardian); the [High School Student Nomination and Approval](#) form (to be completed by the faculty mentor and a school official); and the [Research Proposal](#) (to be completed by the faculty mentor and student). With the formalization of the Laboratory Learning program, the Office of the Dean for Research will provide assistance with the receipt of the applications, and processing of the parental consent, high school student nomination and approval, and research proposal forms. Once these forms have been approved, the department, faculty mentor, parent/guardian, and student will be notified.

Occasionally, situations arise in which it is necessary to extend the participation dates for the research experience. For example, there have been situations where a summer research experience has been extended into the school year based upon mutual agreement between the faculty mentor and the student and that the proposed research plan continues to meet the approvals of the high school and Princeton University. If a situation arises that merits extending the proposed participation dates, the proposed extension should re-confirm that the high school approval is in place with the new dates, that the parental consent covers the new dates, and whether or not the scope of the project has changed in any way. Extension requests should be sent in advance for approval to the Office of the Dean for Research.

**Office of the Dean for Research**

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609-258-5500

**Laboratory Safety:**

The [Office of Environmental Health and Safety](#) will continue to provide services to review applications for high school student research experiences and to conduct necessary safety training prior to the student beginning in the research laboratory. Students must make an appointment with the Office of Environmental Health and Safety (609-258-5294) to attend Laboratory Safety Training and any other pertinent safety trainings (i.e. Laser, Bio-Safety) before beginning in the research laboratory. After all relevant training has been completed, EHS will notify the Office of the Dean for Research, the hosting department and the sponsoring faculty member of the satisfactory completion. Training for process- or equipment-specific operation and hazards will remain the responsibility of the lab and faculty member.

A supervising lab member must be in the laboratory with the student at all times. This supervisor shall be a *trained adult* who is a laboratory employee, graduate student or post-doc and who has received Laboratory Safety Training provided by EHS and any other training deemed necessary for the work being conducted, per EHS protocols. The student will not use or have access to radioactive materials, hazardous chemicals, carcinogens, infectious agents, lasers, laboratory animals and potentially hazardous equipment not specifically approved on the research proposal form. Revisions to the scope of work described and approved through the research proposal form will require re-submission and re-authorization.

**Stipends:**

Financial support in the form of a stipend may be provided to students in summer education programs. The decisions about whether to provide a stipend and the terms of that stipend are made by the faculty and department, according to the specific situation of the research experience (for example, grant

support). Sponsoring departments should complete the [Student Voucher](#) form, selecting the check box for “Non-Princeton Student”, and use account code 270. The Accounts Payable department will process the stipend request and send the check to the student.

When the department processes the student’s W-9 form, they shall also verify student US citizenship or permanent resident status and proof of age -- 16 years or older. The parental consent documents, which are reviewed by the Office of Environmental Health and Safety, will include a parental certification that the student meets these criteria.

In December, the University will send a letter to the student indicating that while the stipend is not reportable to the IRS by Princeton University, stipends are taxable income (like scholarships or fellowships) to the student. For more information, the recipient may wish to read IRS Publication 970, *Tax Benefits for Education* or consult their own tax adviser.

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#### **TigerCard Visitor Badges:**

Students need appropriate identification while on campus during their research experience. The TigerCard Office will provide visitor’s badges for high school students who need to regularly spend time at the University. The badge will identify the building/area in which the student will be doing research, as well as the name of the Princeton University sponsor. Depending on the research plan, it may be appropriate for some students to have a Princeton NetID and email account. Those decisions should be made by the faculty member and department in consultation with the Tiger Card office according to the specific situation. The cost of each badge is \$15, which can be charged against a University account. The department may request a visitor badge through the [form available](#) on the [TigerCard website](#).

Upon completion of the research experience, the faculty mentor or departmental administrator should collect and destroy the student’s TigerCard.

**Process and workflow:**

**Dean for Research**

Website provides information on program, eligibility, application information, and links to departments

