



**Pacific  
Northwest**  
NATIONAL LABORATORY

# PNNL Lab Day

**Who:** Regional university students

**What:** 2-day hands-on course for nuclear safeguards

**Where:** PNNL Campus, Richland, WA

**When:** May 8-9, 2020

**Why:** To introduce students to the topics of nuclear nonproliferation and international safeguards and familiarize them with the national laboratory

## PNNL LAB DAY OBJECTIVES

This course will convene participants to learn fundamental concepts of radiation detection, protection, safety, and the principles of safeguards inspections and technology. Highlights of PNNL's Lab Day include:

- » Engage and network with safeguards experts
- » Learn about internship opportunities
- » Attend safeguards training at the Hazardous Materials Management and Emergency Response facility
- » Gain introductory technical knowledge of radiation detection, protection, safety, and security

## PARTICIPANTS

PNNL Lab Day is designed for undergraduate and graduate students in the Pacific Northwest who will benefit from a greater understanding of international safeguards technologies and engagement with PNNL experts.



## COURSE STRUCTURE

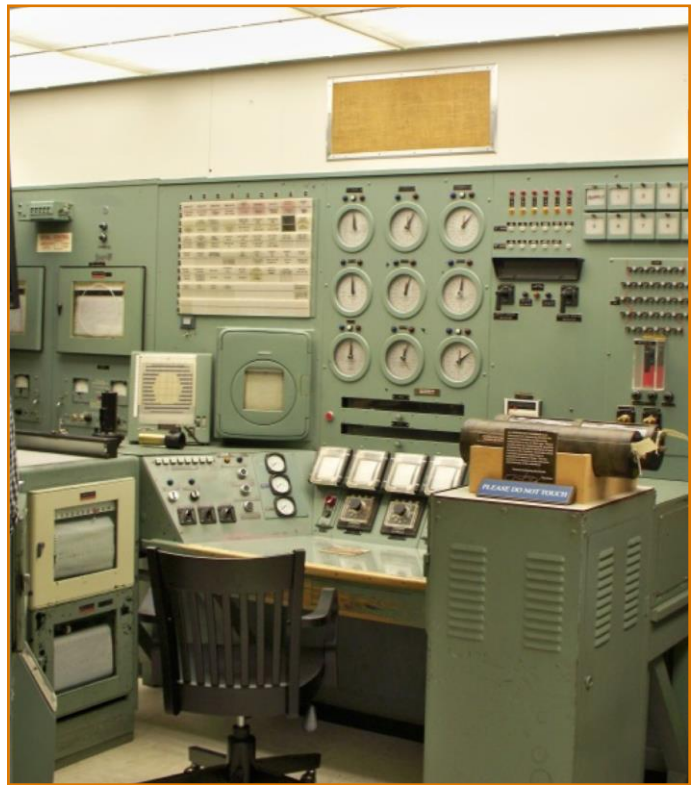
This 2-day course will feature classroom seminars, hands-on exercises, and a tour of B Reactor National Historic Landmark. Below are the planned topics for the course. A final agenda will be provided to the students selected for the course.

- » **Material Balance Area Kits:** Role play as an International Atomic Energy Agency (IAEA) inspector and conduct an on-sight inspection of a mock facility covered under IAEA safeguards.
- » **Vehicle Search Scenarios:** Learn how U.S. security personnel are trained to search cars for radioactive sources.
- » **Container Search Scenarios:** Learn about the various ways export controlled material has been attempted to be smuggled.
- » **B Reactor:** Tour the world's first plutonium production reactor and learn about the history of the Manhattan Project.
- » **Internship Opportunities:** Staff will present information on safeguards research, internships, and courses available to students at PNNL.
- » **Speed Mentoring:** Network with multiple PNNL staff members in small groups.

### ABOUT PNNL

Located in southeastern Washington State, PNNL is a U.S. Department of Energy Office of Science laboratory that solves complex problems in energy, national security, and the environment, and advances scientific frontiers in the chemical, biological, materials, environmental, and computational sciences. With a team of approximately 4,400 staff, PNNL has an annual budget of nearly \$1 billion and has been proudly managed by Ohio-based Battelle since 1965.

[www.pnnl.gov](http://www.pnnl.gov)



## HOW TO APPLY

To apply, complete the registration form at <https://www.nonproliferationportal.com/>.

The application deadline is **April 10, 2020**.

This course is FREE to university students who are accepted. Participants must fund their own travel and lodging.

For information about hotels, airports, and other information associated with traveling to Richland, visit: <http://www.pnnl.gov/contacts/visitors.asp>.

Send any questions with respect to logistics or course content to [Lab.Day@pnnl.gov](mailto:Lab.Day@pnnl.gov).

U.S. DEPARTMENT OF  
**ENERGY**

**NNSA**  
National Nuclear Security Administration