

Nonproliferation Fundamentals

Course Description

- This course provides a technical overview of nuclear weapons development through briefings and tours of weapons facilities.
 - Production of nuclear materials
 - Fundamentals of weapons physics
 - Testing and hydrotesting
 - History of the US weapons program
- Building on these fundamentals, the course gives an overview of the frameworks that seek to curb proliferation of weapons.
 - Nonproliferation Treaty and international safeguards
 - Strategic trade control and technology assessments
 - Bi-lateral and multi-lateral efforts to reduce nuclear weapons and counter weapons technology
- Course Length: 3 days
- Often taught in conjunction with tours and briefings at the Nevada National Security Site.

Learn the fundamentals of development and nonproliferation

Nuclear Weapons Fundamentals

- Learn the history of nuclear weapons development
- Understand the technical aspects of nuclear weapons
- Tour nuclear material production and testing facilities
- Learn about modern weapons technology

Nonproliferation Regime

- Learn the history of the Nonproliferation Regime
- Understand the technical aspects of curbing the spread of nuclear weapons
- Learn about the current technologies of proliferation concern



Understanding the current nonproliferation regime requires a broad understanding of weapons fundamentals and the historical development of nuclear weapons and weapons technology.

Objective

Understand the fundamentals of nuclear weapons design and development, as well as efforts to prevent the spread of weapons technologies.



Course History

Versions of this course have been taught >135 times.

Nonproliferation Fundamentals

Tour Relevant Facilities

- Plutonium fabrication and casting*
- Uranium casting facility*
- Dual-Axis Radiographic Hydrodynamic Testing Facility
- Computer modelling visual demonstrations*
- Nuclear material measurement and detection labs
- Historical sites of the Manhattan Project
- Weapons concepts demonstrations*

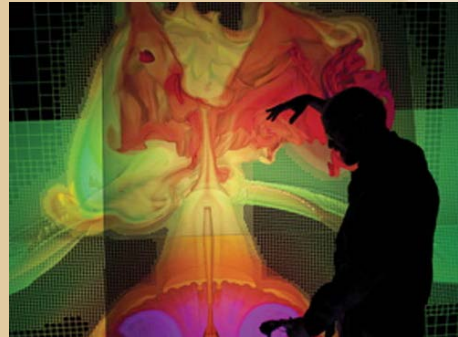
**available as classified tours only*



**Nondestructive Assay
Expertise and Facilities**



LANL Plutonium Facility



**Supercomputing
Facilities**



Weapons Concepts



DARHT Facility