



## Advanced Hands-On Gamma-Ray Nondestructive Assay

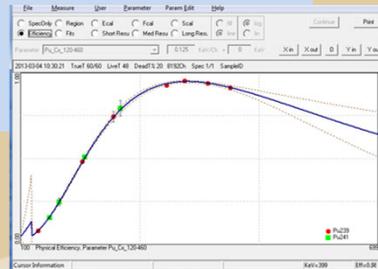
### COURSE DESCRIPTION

- This training course presents a wide range of gamma-ray measurement techniques used domestically, within the DOE complex, and globally by the IAEA and, other International nuclear regulatory agencies. The uses for the gamma-ray measurement techniques covered in this course include:
  - Material safeguards
  - Criticality safety
  - Material identification
  - Nuclear Security
- The course is composed of lectures that describe underlying theories followed by hands-on laboratory exercises covering measurement techniques

#### NDA Concepts Covered:

- ✓ Fundamental principles of gamma-ray spectrometry
- ✓ Uranium enrichment measurements with the enrichment meter technique
- ✓ Uranium and plutonium isotopic composition measurement using response function analysis.
- ✓ Radionuclide Identification

#### NDA Equipment Covered: NaI and HPGC



### Course Objective

To provide students with an in-depth understanding of the use of gamma-ray spectrometry and spectroscopy to nondestructively measure and analyze special nuclear materials and other radionuclides of interest.



### Additional Information

Course Length: 4.5 days

Target Audience: Individuals that perform, manage, or supervise measurements involving gamma-ray detection and analysis. Auditors, regulators, and policy makers may also benefit from attending this course.

