Nuclear Security Education Program

Nuc E 441 - Spring 2017
Nuclear Threat Assessment and Analysis

Mr. Don Shemanski, Professor of Practice
Information Science and Technology

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Director of Radiation Science and Engineering Center

The primary goal of this course is to educate students for conducting nuclear threat assessment and analysis for non-state actors and the threat to nuclear and radiological facilities and supply lines. After completion of the course, students should understand:

- Understand the history of terrorism, including its causes, motivations, strategies, and tactics, particularly regarding nuclear terrorism.
- Explain counterterrorism strategies and policies and the role of intelligence in counterterrorism, with a particular emphasis on the efforts of the United States Government.
- Analyze current and future nuclear threats from countries and non-state or sub-state actors and provide recommendations on how to address these security issues.
- Define and analyze the various types of transnational threats and targets in order to craft effective policy responses.
- Describe nuclear weapons proliferation, including incentives and disincentives for proliferation.
- Identify materials of concern and the physical characteristics of these materials. Also prioritize these materials based on their attractiveness, location, and the threat they pose.

This course is 3 credits and can count as a Nuc E Technical Elective. Graduate students from other fields and Nuc E senior undergraduate students can take this course.

Please contact Prof. Ünlü at 865-6351 (kxu2@psu.edu) or Prof. Shemanski at 867-2834 (dshemanski@ist.psu.edu) if you have any questions.

Time: TBD
Location: TBD