Opportunity Title: Domestic Nuclear Detection Office Summer Internship Program
Opportunity Reference Code: DHS-DNDO-2016-0001

Organization	U.S. Department of Homeland Security (DHS)
Reference Code	DHS-DNDO-2016-0001

How to Apply

A completed application consists of:

- All required fields in both the profile and application form
- Transcripts - For this opportunity, unofficial transcripts or copies of the student academic records printed by the applicant or by academic advisors from internal institutional systems may be submitted. Uploaded documents must include the Fall 2015 term and any postsecondary institutions attended since Fall 2013. Selected candidates must provide official transcripts before the appointment can start. Official transcripts must be sent to ORISE directly from the academic institution. All transcripts must be in English or include an official English translation. Transcripts must include name of the academic institution, name of the student, and completed coursework.
- A current resume/CV
- Minimum of two references received by February 3, 2016

All documents must be in English or include an official English translation.

If you have questions, please send an email to DHSed@orau.org. Please list the reference code for this opportunity in the subject line of your email.
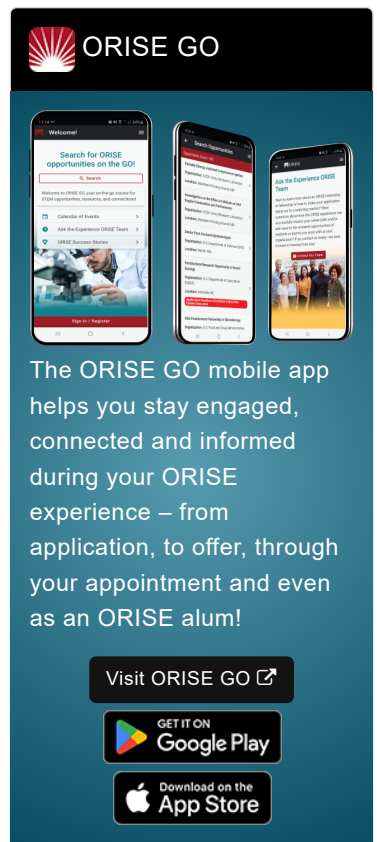
Application Deadline 1/27/2016 11:59:00 PM Eastern Time Zone

Description

The U.S. Department of Homeland Security (DHS) Domestic Nuclear Detection Office (DNDO) Summer Internship Program will provide opportunities for undergraduate and graduate students to participate in projects at federal research facilities located across the country focused on helping DNDO meet its mission of "implementing domestic nuclear detection efforts for a managed and coordinated response to radiological and nuclear threats, as well as integration of federal nuclear forensics programs."

Internships will primarily focus on projects related to Advanced Technology Demonstration programs, or are otherwise in the areas of: Materials Research and Supporting Technology, Advanced Analytics, Nuclear Forensics, Program Management, Radiation Detection, and Shielded Special Nuclear Material (SNM) Detection. Priority will be given to projects in the following specific fields:

- Modelling of mono vs poly dual energy Non-Intrusive Inspection systems
- Complexity and density measurements of Stream of Commerce cargo for Non-Intrusive Inspection, Muon Tomography, Back Scatter and Photo Fission
- Modeling side vs top down radiography
- Dual energy X-Ray Computed Tomography of cargo
- Methods to generate Rynes/Dynes plots to compare and determine gaps and how to fill gaps with Radiation Portal Monitors, Muon Tomography, Shielded Nuclear Alarm Resolution, Non-Intrusive

Inspection, etc.
- Automated Threat Recognition to fuse Non-Intrusive Inspection and Radiation Portal Monitors, etc.

For information about DNDO visit http://www.dhs.gov/about-domestic-nuclear-detection-office.

Benefits

- Stipend of $600 per week for undergraduates and $700 per week for graduate students during the 10-week internship period
- Travel reimbursement of up to $1,000 for participants who live more than fifty miles, one-way, from their assigned hosting site

The program will offer participants with opportunities to:

- Continue their education/training by providing hands-on research experience
- Develop professional networks with leading scientists and research facilities
- Become familiar with DNDO science programs
- Become interested in long-term technology development and career goals in areas related to the DNDO mission

Appointment Locations

Research opportunities are anticipated at the following locations (list will be updated during the application period):

- Argonne National Laboratory (Lemont, IL)
- Lawrence Berkeley National Laboratory (Berkeley, CA)
- Lawrence Livermore National Laboratory (Livermore, CA)
- Los Alamos National Laboratory (Los Alamos, NM)
- National Security Technologies – Remote Sensing Laboratory (Las Vegas, NV and Andrews AFB, MD)
- Oak Ridge National Laboratory (Oak Ridge, TN)
- Savannah River National Laboratory (Aiken, SC)

Nature of the Appointment

Participants will not enter into an employee/employer relationship with ORISE, ORAU, DHS or any other office or agency. Instead, the participant will be affiliated with ORISE for the administration of the appointment through the ORISE appointment letter and Terms of Appointment.

Qualifications Only students meeting the following conditions will be considered:

- Be a U.S. citizen as of the application deadline (evidence of U.S. citizenship must be submitted to ORISE at the time appointment is accepted)
- Be at least 18 years of age by May 2, 2016
- Have a cumulative GPA of 3.30 or higher on a 4.00 scale as of Fall 2015

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- Majoring in a science, technology, engineering or mathematics (STEM) field with interest in nuclear detection and radiological and nuclear threats
- Meet one of the following conditions:
    - Be currently enrolled as a sophomore, junior or senior undergraduate student at a U.S. accredited 2-year or 4-year college or university
    - Be currently enrolled as a graduate student at a U.S. accredited college or university

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Currently pursuing an Associate's Degree, Bachelor's Degree, Master's Degree, or Doctoral Degree.
- **Overall GPA:** 3.30
- **Discipline(s):**
    - **Chemistry and Materials Sciences** (12 👁)
    - **Computer, Information, and Data Sciences** (8 👁)
    - **Earth and Geosciences** (5 👁)
    - **Engineering** (12 👁)
    - **Environmental and Marine Sciences** (3 👁)
    - **Life Health and Medical Sciences** (9 👁)
    - **Mathematics and Statistics** (10 👁)
    - **Physics** (16 👁)
    - **Science & Engineering-related** (1 👁)