

Opportunity Title: Fissionable Material Research Internship

Opportunity Reference Code: DOE-MSIPP-19-4-LANL

Organization Department of Energy (DOE)

Reference Code DOE-MSIPP-19-4-LANL

How to Apply A complete application must include the following to be considered:

- Completion of all required fields in the application and successful application submission
- Undergraduate or graduate transcripts as appropriate
- Two recommendations

If you have questions, send an email to us at MSIPPinternships@orau.org . Please include the reference code for this opportunity in your email.

For Technical information, contact Theresa Cutler at tcutler@lanl.gov.

Application Deadline 1/21/2019 11:59:00 PM Eastern Time Zone

Description The Minority Serving Institutions Partnership Program (MSIPP) Internships is a new program to promote the education and development of the next generation workforce in critical science, engineering, technology, and math (STEM) related disciplines that complement current and future missions of DOE national laboratories. The MSIPP Internship program is designed to provide an enhanced training environment for next generation scientists and engineers by exposing them to research challenges unique to our industry.

MSIPP Interns will be given the opportunity to complete Summer Internships aligned with ongoing U.S. Department of Energy Office of Environmental Management (DOE-EM) research under the direction of a host national laboratory. The internship will be performed at the host national laboratory, utilizing their facilities and equipment under the guidance of a research staff member.

Minority Serving Institutions are institutions of higher education enrolling populations with significant percentages of undergraduate minority students.

For more information about The Minority Serving Institutions Partnership Program (MSIPP) Internships, please visit <http://srnl.doe.gov/msipp/internships.htm>.

To see all MSIPP position postings visit: <https://orise.orau.gov/msipp/>

Project:

Fissile material in waste is frequently encountered in decontamination and decommissioning activities. This radioactive waste is for the most part placed in containers or drums and stored in storage facilities throughout the U.S. Department of Energy (DOE) complex. The amount of fissile material in each drum is generally small because of stringent criticality safety limits and lack of criticality data (experiments).

The chosen participant will design critical experiments using MCNP of fissile material (Highly enriched uranium, Plutonium) in contact with materials found in decommissioning activities (concrete, SiO₂, MgO, Fe, etc). Most of these experiments will be in the intermediate energy spectrum where the majority of the fissions occur between 1 ev and 100 kev. The primary purpose of these experiments is to provide criticality data to validate models in support of decommissioning activities. Criticality data of this type helps validate the arguments for safely increasing limits placed upon fissionable material storage during waste operations.

Location: This internship will be located at Los Alamos National Laboratory.

Salary: Selected candidate will be compensated by either a stipend or salary, and may include one round trip domestic travel to and from the host laboratory. Stipends and salaries will be commensurate with cost of living

Opportunity Title: Fissionable Material Research Internship

Opportunity Reference Code: DOE-MSIPP-19-4-LANL

at the location of the host laboratory. Housing information will be provided to interns prior to arrival at the host laboratory, and will vary from lab to lab.

Application Deadline: January 21, 2019

Expected Start Date: May 28, 2019




Qualifications Eligible applicants must:

- Be a citizen of the United States,
- Be at least 18 years of age,
- Currently enrolled as a full-time undergraduate or graduate student at an accredited Minority Serving Institution, <https://orise.orau.gov/msipp/documents/approved-msi-school-list.pdf>,
- Working toward a science, technology, engineering, or mathematics (STEM) degree,
- Have an undergraduate or graduate cumulative minimum Grade Point Average (GPA) of 3.0 on a 4.0 scale, and
- Pass a drug test upon selection to participate in the MSIPP. The process and timing for drug testing varies from lab to lab. Use of Marijuana/Cannabis or its derivatives if prescribed is legal in some states. However, having these drugs in your system is NOT legal at United States Federal Contractor sites and National Laboratories.

Knowledge, Skills, Work Experience, and Education:

- **Degrees (pursuing/ received) in physics, mechanical engineering or nuclear engineering, or equivalent.**

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:** 3.00
- **Discipline(s):**
 - **Engineering** (27 )
 - **Mathematics and Statistics** (11 )
 - **Physics** (16 )

Affirmation Certification:

I certify that I am at least 18 years of age, a US citizen, and currently enrolled as a student in a degree seeking undergraduate or graduate program in a STEM field at an accredited Minority Serving Institution (MSI). Click [here](#) to verify that you are enrolled at a current MSI.