

Opportunity Title: Influence of Bioaugmentation on Canadian Oilsands and Tailing Processing

Opportunity Reference Code: DOE-MSIPP-16-02-SRNL

Organization U.S. Department of Energy (DOE)

Reference Code DOE-MSIPP-16-02-SRNL

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

- · Completion of all required fields in the application
- Undergraduate transcripts
- One Recommendation (minimum)

If you have questions, send an email to Elizabeth Nelson at <u>Elizabeth.Nelson@orau.org</u>. Please include the reference code for this opportunity in your email.

Application Deadline 3/16/2016 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.

The Environmental Sciences & Biotechnology Group of the Savannah River National Laboratory is recruiting for a student to conduct research in environmental microbiology and chemistry. The student will utilize microbiology, molecular biology, and chemistry for projects in the areas of bioremediation and bioenergy. A strong background in microbiology, biochemistry and/or chemistry is required. A Junior or Senior level student with a excellent grades majoring in chemistry or biology is preferred. Additional experience in analytical chemistry, laboratory instrumentation, or biochemistry is an advantage.

The student will work on a project entitled "Influence of Bioaugmentation on Canadian Oilsands and Tailing Processing". The student will first perform a literature review on the subject and demonstrate that he is knowledgeable and can discuss published information in the subject area. They will then be trained to work safely in the SRNL Environmental Science & Biotechnology Laboratory and learn basic skills in the areas of microbiology and environmental chemistry. Based on the students work, skills, and



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progress they will perform laboratory scale experiments demonstrating bioremediation of oilsands and tailings. They will be trained to maintain accurate laboratory records, participate in project meetings, and then analyze data and write a detailed report by the end of the internship. The student will make a presentation on their results at laboratory meeting before leaving SRNL.

Qualifications The successful candidate will be a junior or senior undergraduate student studying microbiology, biochemistry or chemistry. Previous laboratory experience in analytical chemistry, instrumentation, or biochemistry is strongly preferred.

The candidate will also have the following:

- 1. Ability to complete a scientific literature review on subject of study.
- 2. Skills and maturity to operate advanced laboratory instruments, perform experiments, analyze data, and maintain records in the environmental biotechnology laboratory.
- 3. Follow all laboratory safety rules and procedures.
- 4. With guidance capability of analyzing data, writing a comprehensive peer-reviewed final report, and present findings at a SRNL laboratory meeting.

Eligibility Requirements:

- 1. Be currently enrolled as a full-time undergraduate or graduate student at an accredited Minority Serving Institution *see criteria for Minority Serving Institutions here <u>http://srnl.doe.gov/msipp/internships.htm</u>
- 2. Be working towards a science, technology, engineering, or mathematics (STEM) degree
- 3. Have an undergraduate cumulative minimum Grade Point Average (GPA) of 3.0 on a 4.0 scale
- 4. Be a United States citizen
- 5. 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.
- 6. Reference must be received by March 6, 2016 at 11:59 PM ET

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

To see all MSIPP position postings visit: <u>www.orise.orau.gov/MSIPP</u>

Eligibility

- Eligibility Citizenship: U.S. Citizen Only
- Requirements Degree: Bachelor's Degree or Master's Degree.
 - Overall GPA: 3.00
 - Discipline(s):
 - Chemistry and Materials Sciences (12.)



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- Computer, Information, and Data Sciences (<u>16</u>)
- Earth and Geosciences (21 (*)
- Engineering (<u>27</u>.
- Environmental and Marine Sciences (14 (1)
- Life Health and Medical Sciences (45 (19)
- Mathematics and Statistics (<u>10</u>)
- Physics (<u>16</u> [●])
- Science & Engineering-related (1.)
- **Affirmation** I certify that I am pursuing or have completed coursework towards a degree in science, technology, engineering, mathematics, or a related field.