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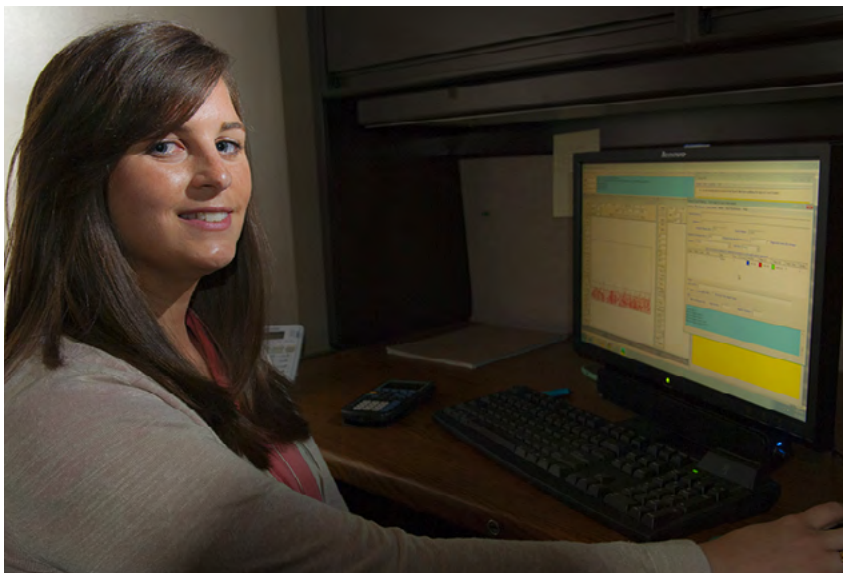
Local College Student Gains Hands-On Experience at the Savannah River National Lab

AIKEN, S.C. (August 29, 2014) – This summer, more than 100 college students interned at Savannah River Nuclear Solutions (SRNS), the Department of Energy's primary contractor at the Savannah River Site (SRS). Augusta native Jessica Maddocks worked for the Savannah River National Laboratory's (SRNL) Global Security department during her summer vacation from Georgia Tech.

Maddocks' internship was part of the Next Generation Safeguards Initiative launched by the National Nuclear Security Administration, which was designed to develop the policies, concepts, technologies, expertise and infrastructure necessary to sustain the international safeguards system as its mission evolves over the next 25 years.

Although women are underrepresented in engineering, Maddocks is a senior majoring in nuclear and radiological engineering. She became interested in her area of study because it is "physics-heavy" and is an interdisciplinary science that encompasses mechanical and electrical engineering as well as chemistry.

Engineering interns at SRNL can become involved in diverse and challenging projects. Her work at SRNL on a typical day consisted of computing advanced mathematical calculations and programming. Maddocks recently wrote a program that would add additional lining to a bag that stored plutonium oxide.



Georgia Tech student Jessica Maddocks interned at the Savannah River National Laboratory this summer.

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Maddocks also worked on a scale to weigh gas centrifuges, which are used to separate uranium-238 and uranium-235 so that the uranium-235 could be used to power commercial reactors. The scale is a safeguards method that aids in the effort to curb nuclear weapon proliferation.

In addition to the other projects, Maddocks worked on a proportional counter detector, a detection system that distinguishes types of radiation. The goal of the project was to make a detector that is both portable for the field and inexpensive.

Maddocks describes her internship experience as highly rewarding and very helpful. “I really enjoyed my internship because I have learned a lot about nuclear engineering from interacting with my co-workers in my group. I am able to share what I have learned with my peers at school,” said Maddocks.

Chris Verst, an engineer in the SRNL Materials Science and Technology Directorate, worked with Maddocks on several projects ranging from hands-on development and design work to computational analysis of nuclear facilities and systems.

“Her ambition and motivation, which comes from being a student at Georgia Tech, enabled her to get involved in several high-visibility tasks,” said Verst. “She assisted in the characterization of spent fuel assemblies undergoing long term wet storage in L Basin. This kind of work not only gives her a crash course in the intricate workings of the back-end of the nuclear fuel cycle, but it also teaches her valuable skills with industry standard nuclear physics codes, which she can use to further her career upon graduating.”

The Savannah River National Laboratory (SRNL) is a multi-program applied research and development laboratory for the U.S. Department of Energy. SRNL applies state-of-the-art science and engineering to provide practical, high-value, cost-effective solutions for our nation's environmental cleanup, nuclear security and clean energy challenges. Visit us on the web at <http://srnl.doe.gov>

Savannah River Nuclear Solutions is a Fluor-led company whose members are Fluor Federal Services, Newport News Nuclear and Honeywell, responsible for the management and operations of the Department of Energy's Savannah River Site, including the Savannah River National Laboratory, located near Aiken, South Carolina.

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