

## WHAT PAST INTERNS HAVE SAID ABOUT THE SEERI PROGRAM:

- Offers flexible research opportunities
- Opportunity to do challenging and interesting work that contributes to Sandia's research program
- Provides hands-on research and data collection experience
- Receive real-world, mechanical engineering, and business experience
- Exposed to things I may have not considered interesting
- Opportunity to learn theoretical background and see it in practice



*Sandia National Laboratories is an Equal Opportunity Employer.*



Science of Extreme  
Environments Research  
Institute

SAND2010-2186P

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Albuquerque, NM  
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<http://www.sandia.gov/pulsedpower/ncppri/index.html>



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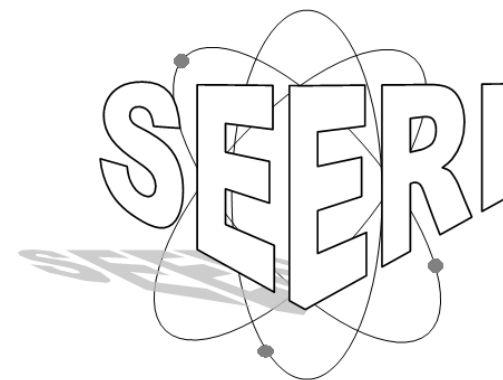
## Science of Extreme Environments Research Institute (SEERI)

SAND2010-2186P

At Sandia National Laboratories

Albuquerque, NM

The Science of Extreme Environments Research Institute (SEERI) provides undergraduate and graduate students with the opportunity to gain experience in the areas of radiation effects sciences, pulsed-power engineering, and high-energy density sciences. Students work directly with Sandia scientists and engineers to conduct research on a focused project.

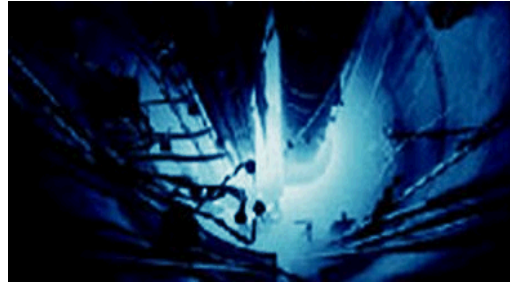


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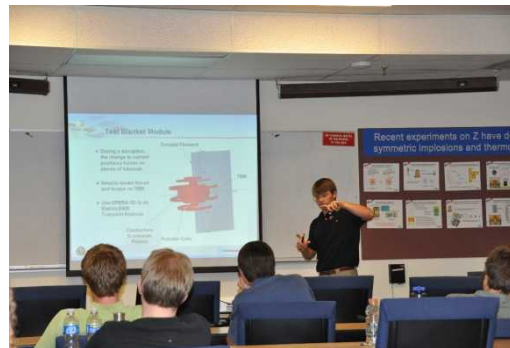
## POTENTIAL PROJECTS FOR STUDENT INTERNS:

- Modeling and simulation support of high-pressure shock physics or laboratory magnetic field applications
- Modeling and simulation support of radiation transport applications using both discrete ordinate and Monte Carlo methods.
- Code development and support for modeling and simulation activities.
- Development or evaluation of a large magnetohydrodynamics (MHD) code
- Use of quantum molecular dynamics codes based on density functional theory
- Modeling radiation interactions in semiconductor devices such as diodes, bipolar transistors, and field effect transistors
- Development and application of a broad range of experimental tools to assess the performance of materials and electronics in severe radiation environments
- Dynamic consolidation of powders



Students learning experiences are supplemented with technical talks and tours to show students the broad range of engineering and scientific disciplines represented at Sandia.

Student Interns are provided the opportunity to present their work to their peers and the Sandia scientific community at the end of their summer term. In some cases students are provided the opportunity to present their work at professional conferences.



## INTERN OPPORTUNITIES:

- On-campus research option during academic year
- Technical research paper
- Graduate study preparation
- Fellowship availability
- Extended multi-year collaboration possible with students, professor and Radiation Effects Science (RES) staff

## PROGRAM HIGHLIGHTS:

- Short Courses, lectures, tours
- Weekly Speaker series
- 10-week summer institute
- Mentoring from Sandia Laboratory employee



**For more information on the SEERI program please contact:**

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