

University of Virginia Research Experience for Undergraduates (REU)  
Site:  
Systems-level Design Experiences in Nanodevices & Nanomaterials  
Technology

We are seeking college students to participate in a cross discipline program in Systems-level Design Experiences in Nanodevices & Nanomaterials Technology. The program will focus on applications from biomedical, chemical, computer, electrical, materials science, and mechanical engineering as well as applied mathematics and science majors. Students must have completed their sophomore year of an engineering, pre-engineering or science based curriculum with a minimum cumulative GPA of 3:0.

The device projects focus on circuit and process design for applying molecular electronics and quantum dot devices towards computation, while materials projects include modeling of nanomaterials assemblies and life-cycle assessments of nanomaterials applied in common products. Unique features of this REU include the presence of design experience as a central component of each sub-project, the use of a research team model that includes peers and mentors, the use of REU training to spur interest in students for graduate studies, and the inclusion social and educational perspectives within these design experience projects, so that the undergraduate students may be motivated by the broader implications, and learn by developing educational materials for lab courses within current curricula.

Students in this NSF/REU will have the opportunity to work closely with faculty members and graduate students. Students will be responsible for a written and oral final report as well as submitting a poster of research findings. Program participants will take a 2-credit seminar course examining the societal and ethical implications of nanotechnology research.

They will also have numerous social opportunities; including Friday evening outings to Charlottesville's historic downtown mall for "Fridays After Five" and weekend hiking opportunities in the nearby Blue Ridge Mountains and Shenandoah National Park.

The program will begin on Sunday, June 8, 2008 and continue until Saturday, August 2, 2008. All students will receive a \$4,000 stipend and on-campus living accommodations (some meals will also be provided). Applicants must be U.S. citizens or permanent residents of the United States. Women, minorities and individuals with disabilities are encouraged to apply.

Applicants must submit the following information:

- 1) Application
- 2) Statement indicating research interest and why you should be selected.
- 3) Resume
- 4) Two letters of reference (current or previous faculty)
- 5) Official university transcript(s)

Applications must be received by February 19, 2008. Only complete applications will be reviewed.

For more information:

<http://www.seas.virginia.edu/diversity/research/overview.php>

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