The University of Alabama
Nanoscience and Engineering High School Research Internship

The Center for Materials for Information Technology at the University of Alabama invites high school sophomores and juniors to apply for a summer research internship in nanoscience and engineering. The students will join the nanoscience and engineering research team and do basic research on either new materials for high density information storage, energy generation and storage, or nanomedicine.

The Center for Materials for Information Technology is one of the world’s leading centers of expertise in materials and processes used in information storage devices. Faculty from chemistry, physics, mathematics, chemical engineering, electrical engineering, and metallurgical and materials engineering form multidisciplinary research teams to solve fundamental materials science problems that allow the information storage industry to continue to make data storage devices (magnetic hard disk drives, magnetic tape, MRAM) with higher data storage capacity at lower cost. Our students find rewarding careers as scientists and engineers in the high tech information storage industry.

We invite high school sophomores and juniors who are highly motivated toward a career in research in science and engineering. This will be a full time summer job beginning on June 1 and ending on August 5, 2011. The students will be paid a stipend of $2,500 and may take one week off for vacation or other summer commitments.

The interns will be trained in safe laboratory practice and educated in the scientific principles underlying the research. The interns will join a team consisting of faculty, graduate students and undergraduate students from chemistry, chemical engineering, metallurgy and physics. The team will also include the other high school interns. Each intern will have their own project and be provided with the support structure (supervision, training and teammates) to allow them to accomplish their project goals by the end of the summer. It is expected that the students will complete a body of work sufficient to have a competitive entry for the local and national science fair competitions. In the past, two of our interns have selected as a semifinalist in the Siemens-Westinghouse Science Fair competition and another won the West Alabama Science Fair and traveled to Phoenix to participate in the Intel Science and Engineering Fair.

If you are curious about nanoscience and engineering and committed to a career in research, we invite you to apply. There are a limited number of positions and they will be awarded to the most qualified candidates. Preference will be given to those who have taken advanced science and math courses, such as A.P. Chemistry, A. P. Physics or A. P. Calculus. We will begin screening applications on March 11, 2011. Offers will be made early in April.

Please send your application, a copy of your high school transcript and arrange to have three letters of reference sent to

David E. Nikles
Center for Materials for Information Technology
The University of Alabama
Tuscaloosa, Alabama 35487-0209

The University of Alabama is an equal opportunity employers and particularly invites applications from women and minorities
Application for a Nanoscience and Engineering High School Research Internship

Name: __________________________________________________________

Social Security Number: ___________________________ Date of Birth: ___________________________

Home Address: __________________________________________________________

Phone Number: ___________________________ E-mail Address: ___________________________

Parents

Father: ___________________________ Mother: ___________________________

Father’s Phone: ___________________________ Mother’s Phone: ___________________________

Father’s E-mail: ___________________________ Mother’s E-mail: ___________________________

High School: ___________________________ Graduation Date: ___________________________

Science and Math Courses Taken:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Science and Math Courses to be taken in the fall of 2011

________________________________________________________________________

Names addresses, telephone numbers and e-mail addresses of three people who are providing letters of reference

Reference #1 Reference #2 Reference #3

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David E. Nikles
Center for Materials for Information Technology
The University of Alabama
Tuscaloosa, Alabama 35487-0209

The University of Alabama is an equal opportunity employers and particularly invites applications from women and minorities
Write a one page essay that describes your career interests:
To the person providing a letter of reference:

Your student is applying for a Nanoscience and Engineering High School Research Internship. This program is described below

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The internship is a full time summer job and we would like to identify top candidates for these few positions. In your letter of recommendation please comment on your student’s academic accomplishments and commitment to a career in research. Comment on the student’s work ethic. Does the student come to class on time and complete assignments on time? Is the student enthusiastic about completing assignments? The students will be asked to learn a number of lab skills very quickly. Are they capable of learning fast? Comment on the student’s communication skills, both written and oral. Also comment on the student’s personality and ability to get along well with others in a team. The laboratory is a dangerous place. Please comment on the students maturity and responsibility, particularly when obeying rules and regulations. Send the letter of recommendation to

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Thank you for the effort you are taking for your student!