



2012 Summer Research Fellowships

NSF Research Experiences for Undergraduates

“Novel Advanced Materials and Processing with Applications in Engineering”

The Departments of Bioengineering, Chemical Engineering, Electrical Engineering, and Mechanical & Industrial Engineering at the University of Illinois at Chicago (UIC) are pleased to announce the availability of **ten** summer fellowships sponsored by the *National Science Foundation (NSF) Research Experiences for Undergraduates (REU) Program*.

PROGRAM OVERVIEW

- For approximately 10 weeks during the summer fellows take residence at UIC, and conduct research under the supervision of faculty and staff from BioEngineering, Chemical Engineering, Electrical Engineering, and Mechanical & Industrial Engineering.
- Fellows take part in a variety of organized scientific and social events, including seminars, tutorials, workshops, and visits to local industries and attractions.
- Award includes: \$4,100 stipend and up to \$400 for travel. Up to \$1,300 is available for campus housing; this covers the full campus housing expense.
- Program dates: May 29 – August 3, 2012. (A later start date may be arranged if necessary.)

PROJECTS INCLUDE

- *Atomic Layer Deposition of Novel Multifunctional Nanostructures*
- *Oxygen Modulation via Microfluidic Devices*
- *Percolation in Engineering*
- *The structure and Chemistry of Solid Surfaces*
- *Greener Solvent Selection and Solvent Recycling for CO₂ Capture*
- *Studying Thermoelectric Oxides using High-Resolution Scanning Transmission Electron Microscopy*
- *Protein Engineering of Spectrin Isoforms*
- *Enhanced Spray Cooling in Microelectronics: Nano-scale Textured “Furry Overcoats” are good for Cooling!*
- *High Pressure Shock Tube Studies of Fuel Combustion Engineering*

Projects will utilize state-of-the-art experimental and computational facilities.

SELECTION AND ELIGIBILITY

- Open to students who are not graduating before December 2012. *US citizenship or permanent residence is required.*
- Selection is based on applicant’s academic standing, a brief statement of interest, and two faculty references.
- Women and minorities are especially encouraged to apply.

**** Applications must be postmarked by February 29, 2012 ****
Later applications will be considered if we have space remaining in the program

For more information visit <http://www.uic.edu/labs/AMReL/NSF-REU.htm>
or contact us at reunsf@uic.edu

Applications should be mailed to the REU Directors Profs. C.G. Takoudis and G. Jursich, SEO 218, 851 S. Morgan Street, Chicago, IL 60607-7052 or submitted to reunsf@uic.edu.