UC SANTA BARBARA

THE Current

October 11, 2005
LANL:
Hildi Kelsey

Los Alamos National Laboratory and UC Santa Barbara Establish New Institute for Multiscale Materials Studies

(Los Alamos, N.M.) -- Los Alamos National Laboratory has formed a partnership with the College of Engineering at the University of California, Santa Barbara to create the Institute for Multiscale Materials Studies (IMMS).

The newly established institute is designed to meet critical training, recruiting and staff retention needs for a wide range of current and future national security missions.

UCSB will initiate a new graduate emphasis area in multiscale materials and mechanics in the chemical engineering, materials, mechanical engineering and computer science departments to grant graduate degrees to students pursuing advanced education both at UCSB and at UCSB's IMMS facilities in Los Alamos.

The new graduate emphasis area will focus on linking recent advances at the molecular- and nano-scale to the performance of soft matter, such as polymers and biological systems observed at a relatively large scale.

Classes will be taught using a new state-of-the-art Access Grid technology distance learning classroom allowing communication from UCSB to Los Alamos and from Los Alamos to UCSB.

"This partnership will bring to bear a unique combination of personnel, capabilities and expertise that will greatly enhance the vitality of the future work force at Los Alamos in material science and engineering," said Alan Graham, material scientist and Los Alamos' acting director for the IMMS.

David Clarke, professor of materials and of mechanical and environmental engineering at UCSB, is co-director of the Institute.

Los Alamos is a world leader in materials research and has unique user facilities such as the Los Alamos Neutron Science Center, the National High Magnetic Field Laboratory, and the Center for Integrated Nanotechnology.

In turn, UCSB is nationally and internationally recognized as a center of excellence in the physical sciences and engineering.

Material science related programs carried out in UCSB are currently ranked as the top program in the world. UCSB faculty members have won five Nobel prizes since 1998.

UCSB has one of the highest concentrations of members of the National Academy of Sciences and National Academy of Engineering for any university.

"There's been a program of cooperative research between UC Santa Barbara and the Los Alamos National Laboratory for a long time, but this institute marks a significant increase in the level of cooperation between the two institutions," said Matthew Tirrell, dean of the College of Engineering at UCSB.

"Pretty much every department in the College of Engineering is involved in this endeavor.

This new institute represents something that we hope will be a lasting vehicle for cooperation between our campus and the Laboratory."

According to Graham, the program carries direct and long-term benefits to the Lab by providing a formal mechanism and pipeline for the recruitment, training and retention of highly trained critical personnel in materials science and technology and

access to university expertise.

"Subsequently, the College of Engineering at UCSB will benefit from this interaction by extending its educational activities in areas of critical service to the nation, and offering students outstanding professional development and career opportunities not found elsewhere and by tapping into Los Alamos' unique materials research resources and activities," Graham added.

IMMS courses are expected to begin during the winter quarter.

Los Alamos National Laboratory is operated by the University of California for the National Nuclear Security Administration (NNSA) of the U.S. Department of Energy and works in partnership with NNSA's Sandia and Lawrence Livermore national laboratories to support NNSA in its mission.

Los Alamos enhances global security by ensuring the safety and reliability of the U.S. nuclear deterrent, developing technologies to reduce threats from weapons of mass destruction, and solving problems related to defense, energy, environment, infrastructure, health and national security concerns.

Related Links

LANL Institutes

About UC Santa Barbara

The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we draw inspiration from the beauty and resources of our extraordinary location at the edge of the Pacific Ocean.