UNH News: UNH to Celebrate 10 Years of Showcasing Undergrad Science Research

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On Wednesday, April 24, 2013, the University of New Hampshire will host the 10th annual Interdisciplinary Science & Engineering Symposium (ISE), part of the university’s 14th annual Undergraduate Research Conference, continuing the tradition of celebrating the scholarly achievements and research of hundreds of undergraduates. In addition to the 182 research posters 421 students will present—both record numbers—this year’s event will recognize UNH faculty and staff who have been instrumental in the long-term success of the ISE.

Every spring, as the academic year winds down, students in the engineering and science disciplines showcase their research through posters, demonstrations, and oral presentations. The ISE provides students with opportunities to translate complex research findings into a coherent and understandable format for public presentation, followed by questions from a mix of fellow students, family members, faculty, administration, industry and alumni.

Notes ISE co-founder Cameron Wake, a research associate professor at the UNH Institute for the Study of Earth, Oceans, and Space, “Synthesizing findings derived using strict scientific methodology, relaying these in a coherent story, and then fielding probing questions is an extremely important skill that we don’t provide our students with often enough.” He adds, “We hear again and again that participation in the symposium can actually be a life-changing experience.”

The ISE is intended to provide a forum that crosscuts traditional science and engineering disciplines and exposes students to research outside their own departments or their advisors’ particular fields of expertise. Students may see how their research connects with someone else’s, which might propel them to ask new questions, take their research in new directions, or form new collaborations with other students. Leading up to the ISE, students work with faculty mentors to conduct scholarly inquiry into topics that intrigue them and engage in a process that teaches creative thinking and problem solving within their chosen disciplines.

UNH alumna and ISE multiple award winner Morgan O’Neill, now a Ph.D. candidate at the Massachusetts Institute of Technology, had the opportunity to work on various aspects of the NASA Interstellar Boundary Explorer (IBEX) satellite mission with faculty mentor Eberhard Möbius for her entire undergraduate career.

“What stands out to me now about the ISE, among the professional conferences I have since attended, is that it’s all students—you’re not competing against seasoned scientists, and all of the students recognize that they can learn methods and techniques from each other,” O’Neill says. “Everyone goes home smarter and more confident.”

Adds Sam Mukasa ’77, dean of the College of Engineering and Physical Sciences, “When I was an undergraduate, we did have opportunities to do research but no way to present our results in a friendly environment, surrounded by fellow students and faculty. Some of us were baptized by fire at national
meetings.” He adds, “The ISE is a wonderful forum for students to practice communicating their science before going out to face the world.”

Student presentations represent a multitude of disciplines, many of which are interdisciplinary, including Earth, environmental, biological, computer and physical sciences, civil, mechanical, chemical, electrical, and computer engineering, mathematics and statistics, physics, and chemistry.

Presentations this year run the gamut from a clean water project in the Dominican Republic to life cycle analysis of the UNH organic dairy farm, rising sea level impacts on road infrastructure in coastal New Hampshire, and an asteroid mitigation project.

The three-hour program, held from 2 to 5 p.m. in Kingsbury and Morse halls on the Durham campus, includes a poster session, remarks from university leaders, and an awards ceremony at the symposium’s closing.

The ISE is free and open to the public and is part of the university’s two-week-long, campus-wide Undergraduate Research Conference—one of the largest such conferences in the U.S.

For more information on the ISE visit http://www.unh.edu/urc/ise.

The University of New Hampshire, founded in 1866, is a world-class public research university with the feel of a New England liberal arts college. A land, sea, and space-grant university, UNH is the state's flagship public institution, enrolling 12,200 undergraduate and 2,300 graduate students.

Photograph available to download: http://www.eos.unh.edu/newsimage/urc2102_3lg.jpg
Caption: Students explain their research projects to attendees and judges at last year’s Interdisciplinary Science & Engineering symposium.
Credit: Kristi Donahue, UNH-EOS.

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