



UNH Receives \$3 Million To Transform Earth Science Education

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DURHAM, N.H. -- The University of New Hampshire, along with three partner universities, received a National Science Foundation (NSF) grant of \$3 million to share its faculty expertise in earth sciences with middle and high school teachers. Intended to serve as a national model, the program – called Transforming Earth System Science Education (TESSE) -- will provide professional training to current and future teachers.

“There are a lot of people teaching Earth science at the middle and high school levels who don’t have strong backgrounds in Earth science,” says Karen Graham, professor of mathematics at UNH and director of UNH’s Leitzel Center for Mathematics, Science, and Engineering Education, which received the grant. “This is an opportunity for them to update their content, to broaden their understanding of Earth science, and to become more of an Earth systems scientist.” Graham adds that the field of Earth science is changing from a “just rocks” perspective to one of the Earth as a system, and new science standards in schools are reflecting this change.

With the NSF grant, which is over three years, the Leitzel Center and co-investigators from UNH’s Department of Earth Sciences, Department of Education and the Institute for the Study of Earth, Oceans and Space will collaborate with faculty from Dillard University in New Orleans, Elizabeth City State University in North Carolina, and Pennsylvania State University to create two-week summer institutes and year-round scientist-in-residence programs for current and incoming teachers. While the first summer institute, July 23 – Aug. 3, 2007, will be at UNH, each partner institute will host a summer program in consecutive summers.

Students from each of the partner institutions will serve as scientists-in-residence in the classrooms of summer institute participants, developing mutual relationships between teacher and university student. This component of the TESSE program builds on the successes of an existing Leitzel Center NSF-funded program Partnership for Research Opportunities to Benefit Education (PROBE).

“We are really excited by the opportunity to strengthen links between universities and K-12 education through summer activities and the year-long classroom partnership between graduate students and teachers,” says Julie Bryce, assistant professor of geochemistry at UNH and co-director of the TESSE program. “I have been fortunate to work with Melissa Smith, a current PROBE graduate student fellow who will lead the first group of graduate fellows in the TESSE program. Melissa has been highly effective in gathering information on the expertise and strong research programs at UNH and taking activities based on these programs into high school classrooms.”

While the program is aimed at teachers, Graham notes that ultimately, students benefit. “The Earth is where we live. For students to be informed citizens, they need information to better understand things like global warming,” she says.

To learn more about TESSE, or to download an application to participate, go to <http://www.leitzelcenter.unh.edu/geo-teach/index.html>.