MAJOR GRANT FROM HELMSLEY CHARITABLE TRUST BOOSTS AAU INITIATIVE TO IMPROVE UNDERGRADUATE STEM EDUCATION

The Association of American Universities (AAU) announced today that it has received a major grant from the Leona M. and Harry B. Helmsley Charitable Trust to help conduct its five-year initiative to improve the quality of undergraduate teaching and learning in science, technology, engineering and mathematics (STEM) fields at its member institutions.

The initiative, which has been underway since 2011, is designed to implement new, more interactive methods of instruction in these fields, particularly in freshman and sophomore courses, that researchers have found enhance learning and that are expected to encourage students to remain and graduate in STEM fields.

The grant of $4.7 million, to be used over a three-year period, will help to build AAU’s internal capacity to lead the effort and provide resources directly to member universities to facilitate transformation in teaching and learning. Working with its members, AAU is developing a framework for effective STEM teaching and learning, and will select a set of up to eight initial demonstration sites to implement and test the framework.

The Helmsley Charitable Trust is currently making investments in nationally significant issues in K-12 and postsecondary education. Among other interests, the Trust is exploring the challenge of retaining undergraduates in STEM majors to support increased numbers of STEM-literate college graduates prepared for the global, 21st-century workforce.

“Our country needs more STEM-trained college graduates to remain economically competitive,” said Richard F. McKeon, Program Director for Education at the Trust. “Too many students leave these majors before graduation, often in the first or second year of college. AAU’s Undergraduate STEM Education Initiative will help universities use innovative approaches to transform teaching practices, leading to greater STEM retention and graduation rates.”

AAU President Hunter Rawlings said that the grant is critical to the progress of the AAU initiative.

“We appreciate that the Helmsley Charitable Trust views AAU’s initiative as a powerful means of addressing our country’s shortage of college graduates with degrees in STEM fields and with basic STEM literacy,” he said. “While that shortage has a number of contributing factors, it is clear that improving teaching methods is crucial to our efforts to fix it. AAU created the STEM initiative out of concern that our universities, which are unparalleled in their conduct of research
and graduate education, need to reexamine the traditional methods of teaching in the STEM fields.”

He added, “A great deal of research has been conducted on the most effective methods of teaching specific STEM subjects, much of it at AAU universities, and many of the results are compelling. The AAU initiative will disseminate these methods among AAU universities, some of which are already leading the way in bringing about change. To be clear, this is not a study. It is a practical effort to bring about real change, and we are greatly encouraged by the receptivity to this initiative at our universities.”

To assist in carrying out the work supported by the Helmsley Charitable Trust grant, AAU has recruited Dr. James Fairweather to serve as co-principal investigator. Dr. Fairweather, a Professor of Higher, Adult and Lifelong Education at Michigan State University, is widely acknowledged as a leading scholar in the study of faculty work and in reforming undergraduate STEM education.

Dr. Linda Slakey, Former Director of the Division of Undergraduate Education at the National Science Foundation and Dean of the College of Natural Sciences and Mathematics and the Commonwealth Honors College at the University of Massachusetts Amherst, will also support the project in her role as AAU Senior Advisor for STEM Education. AAU has also appointed a technical advisory committee of experts in STEM education to help guide the effort.

Additional information about the AAU Undergraduate STEM education initiative can be found at: http://www.aau.edu/policy/article.aspx?id=12588.

# # # # #

The Association of American Universities is an association of 59 U.S. and two Canadian research universities organized to develop and implement effective national and institutional policies supporting research and scholarship, graduate and professional education, undergraduate education, and public service in research universities.

The Leona M. and Harry B. Helmsley Charitable Trust aspires to improve lives by supporting effective nonprofits in a variety of selected areas. Since 2008, when the Trust began its active grantmaking, it has committed over $700 million to a wide range of charitable organizations. For more information on the Trust and its programs, please visit the website, www.helmsleytrust.org.