AAU PRAISES PCAST REPORT ON UNDERGRADUATE STEM EDUCATION; REPORT RECOMMENDS ACTIONS AAU IS TAKING WITH ITS OWN INITIATIVE

The Association of American Universities (AAU), a nonprofit association of preeminent public and private research universities, expressed support for the report on STEM education issued today by the President’s Council of Advisors on Science and Technology (PCAST).

The report, *Engage to Excel: Producing One Million Additional College Graduates with Degrees in STEM*, calls on the nation’s colleges and universities to “improve the first two years of STEM [science, technology, engineering, and mathematics] education” with “widespread adoption of empirically validated teaching practices.”

AAU President Hunter R. Rawlings III noted that this is the purpose of a major STEM education initiative announced in September by AAU.

“The President’s advisors are exactly right,” he said. “Our country needs more scientists and engineers, as well as more science-literate citizens, but the way we teach these fields in the first two years of college is driving too many students away. AAU has embarked on a project that seeks to accomplish what PCAST is calling for – to improve STEM teaching in those first two critical years by having students spend less time being lectured at and more time engaged in interactive learning and discovery-based research activities.”

Rawlings added, “We already know much of what works, but changing practices that are decades old, even centuries, does not happen easily. A number of our AAU institutions are leading the way, and we want to use those examples to convince not only all AAU universities but also other research universities that change is not only possible but necessary.”

The official release of the report will take place today at a 3:00 p.m. event that can be watched here. Additional information about the report can be found on the PCAST website.

The AAU STEM undergraduate education project is a five-year initiative designed to help higher education institutions assess the quality of teaching in these fields, share promising practices, and encourage departments and faculty members to use the most effective teaching methods in their classes, particularly for those in the first two years of college. AAU’s effort will complement efforts underway at several of its institutions, as well as those of other groups.

The PCAST report, according to a cover letter to President Obama from PCAST co-chairs John P. Holdren and Eric Lander, “provides a strategy for improving STEM education during the first two years of college.” They add, “Implementing these recommendations will help you achieve
one of [your] key STEM goals…American students will move from the middle to the top of the pack in science and math over the next decade.”

In addition to encouraging widespread adoption of proven STEM teaching practices, the report recommends replacement of “standard laboratory courses with discovery-based research courses” as well as “a national experiment in postsecondary mathematics education to address the math preparation gap.” It also calls for partnerships “to diversify pathways to STEM careers” and a Presidential Council on STEM Education.

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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.