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For Immediate Release

Science Foundation Arizona Awards Math and Science Achievement Grant to Launch Innovative High School Engineering Program

Tucson Unified School District and the University of Arizona Receive Grant to build statewide pathways for students preparedness in Engineering careers

(December 1, 2009 - TUCSON, AZ) Tucson Unified School District (TUSD) in partnership with the University of Arizona College of Engineering (UA) has won a two-year, competitive Math or Science Achievement Grant (MSAG) awarded by Science Foundation Arizona (SFaz) and funded through the state Board of Education. The grant supports the district and other schools across the state to implement a new program geared toward increasing engineering graduates at Arizona colleges.

The TUSD-UA program incorporates an innovative approach involving high school and higher education institutions as collaborative partners to increase the pipeline of qualified engineers throughout Arizona. Piloted at Chandler Hamilton High School in metro Phoenix, *Engineering 102* will expose students to hands-on courses at UA and allow them to simultaneously enroll in engineering classes at their high school and the university.

High school students at participating schools can now elect to jump start their university studies and earn three credit hours toward an engineering degree. A recent ranking report released by salary compensation data company, *PayScale*, indicated that seven of the ten highest starting salaries for college majors are within the engineering sector, with starting salaries for some of these graduates exceeding \$60,000.

Employers in Arizona have repeatedly voiced concern that they have difficulty filling jobs that call for engineers because of the low number of graduates, compounded by heavy competition among employers for qualified personnel. While Arizona ranks near the top in terms of need for science and engineering graduates, it ranks near the bottom in supplying qualified workers.

The grant funds will facilitate the expansion of the program to 20 high schools across the state with curriculum materials, as well as support from UA's engineering department through online tools, teacher professional development and evaluation. *Engineering 102* will be overseen by Dr. Jeff Goldberg, dean of the UA College of Engineering.

"It is incumbent upon us to teach material in an inviting and professional manner so students can learn the concepts and how to apply them as they move on to a successful career," said Goldberg. "Implementing *Engineering 102* in high schools is a potential method to increase the pipeline flow of much-needed engineers, as students experience engineering in a safe and familiar environment."

“The backbone of Arizona’s growth and ability to compete in the 21st century is dependent upon smart people with technical expertise,” said William C. Harris, President and CEO of Science Foundation Arizona. “Teachers can now be trained to deliver college level curriculum to their high schools student to prepare them for both the rigorous academic demands of college and the numerous exciting careers that await them upon graduation.”

“These math and science grants are funding critical programs that are key to the success of students, and in turn, to the community and state,” said Dr. Vicki Balentine, member of the state Board of Education. “The head start these high school students will have as a result of this partnership is an important one – for them and for all of Arizona – as we increase the number of qualified graduates for tomorrow’s workforce.”

“We need to ensure at every level that we have effective education to guarantee adequate numbers of engineers and students trained in technical specialties who can meet the growing needs of Arizona industry to compete effectively – both nationally and globally.” said Arizona State Representative Frank Antenori of Tucson.

“In this global economy, industry will move where they have the best and brightest - with engineering talent being key,” said Darcy Renfro, executive director of Science Foundation Arizona’s Science Technology Engineering and Mathematics (SFaz STEM) Initiative. “If Arizona is to compete for industry investment and for that brain power, then we have to focus on programs like this one that will ensure the crucial human capital component. Not only will this program support Arizona’s economic security, but it will effectively help in preparing students for success in college and careers.”

The TUSD-UA proposal is one of six among a pool of 28 applications chosen for the highly competitive MSAG awards, all of which are required to undergo a rigorous selection process. SFaz STEM provides fiscal oversight and management of the grant monies to ensure grantees adhere to timelines, funding requirements and established metrics.

Previous MSAG awards have gone to Metro Tech High School in Phoenix for a sustainable energy curriculum, Flagstaff Schools for a Challenger Space Center and to Navajo County Education Service for a STEM-intensive curriculum incorporating native habitats and wetlands.

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About Science Foundation Arizona: Science Foundation Arizona (SFaz) is a 501(c)(3) non-profit organization initiated in 2006 by the Greater Phoenix Leadership Inc., Southern Arizona Leadership Council and the Flagstaff Forty with the goal to build and strengthen the scientific and education infrastructure in areas of greatest strategic importance to Arizona’s competitiveness in the global economy. These areas comprise advanced communications, biomedicine and sustainable systems that include renewable energies. The state has appropriated monies through the Arizona 21st Century Competitive Initiative Fund and these grants, totaling \$60 million in the first two years, leveraged an additional \$109.8 million in outside capital. SFaz continues to accelerate Arizona's students’ competency and excellence in STEM education and has to date impacted 54,000 students statewide. SFaz serves as a facilitating bridge between industry and education that ensures a highly skilled Arizona work force as the foundation for a 21st century knowledge-based, global economy. Founding executive leadership groups are funding operating costs for SFaz through 2012, enabling public and philanthropic funds to be directly applied to foundation initiatives. For more information, visit www.sfaz.org