PBS TeacherLine and Purdue University Partner to Help Elementary Educators Teach Engineering and Foster Student Interest in Sciences

PBS TeacherLine and INSPIRE at Purdue University develop online course to support integration of engineering into elementary curricula and improve STEM learning

ARLINGTON, Va. (March 18, 2010) – With the number of engineers graduating from U.S. colleges and universities declining, and more than half of the U.S. workforce in engineering fields approaching retirement, the need for more students interested in and prepared to study engineering in college is growing. To inspire more American students to pursue careers in engineering and the sciences, it's critical for schools to engage students in these subjects at an early age. PBS TeacherLine® (www.pbs.org/teacherline) the premier provider of online professional development for preK-12 educators, has teamed up with the Institute for P-12 Engineering Research and Learning (INSPIRE) within the School of Engineering Education at Purdue University to develop a course for elementary educators on teaching engineering concepts to young students.

The recent launch of President Obama's "Educate to Innovate" campaign stressed the importance of improving the participation and performance of America's students in science, technology, engineering, and mathematics (STEM). STEM-related careers are vital to the nation's economic growth and prosperity, yet achievement scores and the number of students graduating from college in these areas pale in comparison with other developed countries.

"These are exciting times for STEM educators, given the strong political commitment to STEM teacher training, a revitalized national focus on the "E" (engineering) in STEM, and a growing research body that demonstrates interest in engineering needs to be fostered particularly in the early years," said Johannes Strobel, director of INSPIRE and assistant professor of engineering education and educational technology at Purdue. "It's time to translate that research into teacher professional development. We are pleased to work with PBS TeacherLine as a national partner for high-quality STEM training through the organization's very successful Web-based facilitated model for teacher professional development."

The new online professional development course for preK-6 grade teachers will be based on the groundbreaking research and authentic evidence-based curriculum from INSPIRE, and offered nationally through PBS TeacherLine's proven online facilitated learning environment. The 30-hour, two-credit course will enable teachers to provide students with an early foundation in engineering through standards-based science, math and reading curricula, and to help students develop critical-thinking and problem-solving skills. Through the course, educators will build on their subject-area knowledge while learning innovative instructional strategies and activities they can immediately apply in the classroom to teach engineering topics, such as balances and forces, electricity and magnetism. The course also will demonstrate how teachers can effectively infuse technology into the classroom to enhance student learning. Teachers can earn graduate credit from Purdue University, continuing education units, or professional development points for course completion. The course will be open for enrollment in September.

"The integration of engineering education at the elementary level will better prepare students with the tools and skills needed for success in life, and for the pursuit of post-secondary education and careers in sciences and engineering," said Melinda George, senior director of PBS TeacherLine.

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"Partnering with INSPIRE, we can bring innovative, high-quality professional development in STEM education to more educators through anytime, anywhere learning, and assist schools in inspiring a future generation of scientists and engineers whose ingenuity and ideas meet our society's needs."

PBS TeacherLine courses are designed to leverage the rich use of audio, video, and interactive technology, with the support of a collaborative online learning community to provide a highly engaging educational environment, and to serve as model of technology integration for teachers. To ensure a successful learning experience, PBS TeacherLine course facilitators encourage discussion and participation, provide valuable feedback, and guide teachers through the courses.

For more information about PBS TeacherLine, visit www.pbs.org/teacherline.

About INSPIRE and Purdue University
INSPIRE, the Institute for P-12 Engineering Research and Learning is a research center in the School of Engineering Education at Purdue University that is dedicated to addressing the downward trends in engineering interest, preparedness, and representation; to transforming preschool-12 engineering education; and ultimately to preparing an engineering literate society. Established in 2006, INSPIRE conducts basic and applied multidisciplinary research in: early engineering; identity and gender; the development of students' and teachers' knowledge, attitudes and behavior in regards to engineering; the learning of engineering in informal settings; and research on system-wide, large-scale integration of engineering into educational systems. INSPIRE is an integral part of the School of Engineering Education, the nation's first academic unit offering a Ph.D. in Engineering Education, and Purdue University's Engineer of 2020 Initiative.

About PBS TeacherLine
PBS TeacherLine is committed to helping teachers acquire the skills they need to prepare students for a successful future. PBS TeacherLine provides high-quality, affordable professional development for preK-12 educators through facilitated, online courses, collaborative learning communities, and exemplary Internet-based resources. Currently, more than 120 courses across multiple subject areas are offered. Teachers can earn continuing education units, professional development points, and graduate credits for course completion. The courses have been developed in conjunction with leading education organizations, including the Mid-Continent Research for Education and Learning (McREL), Concord Consortium, and International Society for Technology in Education. Created in 2000, PBS TeacherLine is funded by a grant from the U.S. Department of Education, which represents approximately 85 percent of the total program funding. The remaining 15 percent is funded through in-kind support from PBS and program income. For more information, visit www.pbs.org/teacherline.

About PBS
PBS, with its 356 member stations, offers all Americans – from every walk of life – the opportunity to explore new ideas and new worlds through television and online content. Each month, PBS reaches more than 124 million people on-air and online, inviting them to experience the worlds of science, history, nature and public affairs; hear diverse viewpoints; and take front row seats to world-class drama and performances. PBS' broad array of programs has been consistently honored by the industry's most coveted award competitions. Teachers of children from pre-K through 12th grade turn to PBS for digital content and services that help bring classroom lessons to life. PBS' premier children's TV programming and Web site, pbskids.org, are parents' and teachers' most trusted partners in inspiring and nurturing curiosity and love of learning in children. More information about PBS is available at www.pbs.org, one of the leading dot-org Web sites on the Internet.

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