Institute for Engineering Education and Innovation Distinguished Lecture Series presents

Engineering EiE®: The Research Behind an Exemplary Elementary Engineering Curriculum



Christine Cunningham, Ph.D.

Vice President, Museum of Science in Boston Fellow, American Society for Engineering Education

Thursday, January 29 1:30 - 3:00 p.m. 3002 ETB

Traditionally engineering education has been reserved for college students. But increasingly, engineering concepts and skills are being included in elementary-level instruction, as national and state standards place unprecedented emphasis on integrating science with engineering starting with the youngest students. This change presents some exciting possibilities—and also some challenges, as educators explore how to introduce engineering in an age-appropriate manner and in a way that is inclusive for all students.

This talk explores the role of research in the development elementary engineering curricula, and specifically how research and evaluation have grounded the development of Engineering is Elementary®, a national curriculum project based at the Museum of Science in Boston, MA. Research on curriculum efficacy will also be presented, including evidence that elementary students learn both engineering and science concepts more effectively as engineering is integrated into the classroom and that students' openness to science and engineering careers hopefully improves. Plans and opportunities for future research will also be highlighted.

Dr. Christine Cunningham holds B.A. and M.A. degrees in biology from Yale and a Ph.D. in Science Education from Cornell University. Since 2003 she has been vice president at the Museum of Science in Boston where she founded and directs Engineering is Elementary™, a groundbreaking project that integrates engineering concepts into elementary curriculum and teacher professional development. Cunningham is an educational researcher who works to make engineering and science more relevant, accessible and understandable, especially for underserved and underrepresented populations.



