

# I-STEM's Mission and Goals

**I-STEM** (the *Illinois* Science, Technology, Engineering, and Mathematics Education Initiative) partners with STEM (science, technology, engineering, and mathematics) academic, research, and outreach units at the University of Illinois at Urbana-Champaign (*Illinois*), as well as a number of partners locally and across the state and nation. I-STEM seeks to improve the access, quality, and efficiency of STEM education activities at *Illinois* and in the state and the nation, serving as a model for other universities seeking to improve the number and quality of their own STEM education programs.

## WHY FOCUS ON STEM EDUCATION?

Our world increasingly relies on science and technology to solve some of today's most intractable problems. As noted in the National Science and Technology Council report, *Federal Science, Technology, Engineering, and Mathematics (STEM) Education Strategic Plan* (2013), improving STEM education will continue to be a high priority. However, U.S. student interest and performance in STEM fields is in decline. Perhaps at no time in our nation's history has a strong, comprehensive system of education been so essential. As challenges mount in such areas as national defense, climate change, health, energy, economic growth, food safety and accessibility, and environmental protection, so does the demand for highly able scientists, engineers, and health professionals. As one of the nation's premier land-grant research universities, *Illinois* is committed to improving STEM education at all levels.

I-STEM's activities are organized around three primary goals:

- **Goal 1: Foster STEM Citizenship Through STEM Communication & Public Engagement.** Cultivate sustained, coordinated partnerships to engage the public in STEM experiences early and consistently, involving university faculty and students to help meet STEM education challenges. An informed citizen should have the ability to apply critical-thinking skills needed to understand complex, STEM-related issues, to develop his or her own views, and to act accordingly. Disseminate information about STEM Education Initiatives.
- **Goal 2: Foster Undergraduate & Graduate STEM Education Reform.** Stimulate accessible, engaging, undergraduate and graduate STEM programs and research experiences to promote interest and success in STEM fields, including teaching, for diverse students.
- **Goal 3: Advocate for STEM Education; Disseminate Evaluation Information.** Serve as advocates for STEM education in the state and the nation, such as at national conferences. Disseminate results regarding STEM Education evaluations.



Above: During I-MRSEC's *Cena y Ciencias* outreach, an Illinois PhD student and SACNAS member interacts with a student using toothpicks and various candies to build a "polymer DNA strand."

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