

**STRATEGIES FOR ENGINEERING EDUCATION K-16 (SEEK-16) SUMMIT**  
AT THE NATIONAL ACADEMY OF ENGINEERING (HELD IN FEBRUARY 2005)

**Web Address:** <http://www.howardcc.edu/seek-16/default.htm>

**Grade/Age Levels:** Kindergarten through college undergrads

**Target audiences:** Engineering education stakeholders (from business, government, K-12 classrooms, higher education, national associations)

**Overview:** Believing that widespread understanding of engineering and technology is essential to personal and national prosperity, the summit's vision was to foster universal student literacy of science, technology, engineering, and mathematics (STEM) by integrating engineering and technology concepts and practices into K-16 math and science teaching and learning. The summit was initiated as an entrepreneurial, grassroots effort to bring together a coalition of decision and opinion leaders from across learning, workforce, and economic communities. These leaders' task is to begin translating into *actions* the numerous recommendations of public and privately funded studies to apply engineering, design and technology practices for improved student STEM literacy.

**Summit Challenge Questions:**

- 1: How do you define and establish programs that apply design, engineering, and technology concepts to ensure STEM literacy for all students across different learning and workforce communities?
- 2: How can applying design, engineering and technology in science and mathematics teaching and learning ensure career success, workforce readiness, and lifelong learning?
- 3: How do we link educational curricula and pedagogies employed in STEM education to meet these objectives?

**Subjects Covered:** Science, Technology, Engineering, Mathematics

**Size of Program:** NA

**Where Offered:** NA

**Time Spent by Students:** NA

**Partners/Sponsors:** ASM Materials Education Foundation, DuPont Corporation, Intel, Lockheed Martin, Microsoft, National Science Foundation, TechGuard Security

**Format:** 1.5-day meeting with challenge question commentary/introduction followed by facilitated workgroup sessions

**Materials Available on Web and/or Purchase:** NA

**Training – Avail/Required:** NA

**Results to Date:** Summit attendees came up with a recommended “plan of action” that addressed Awareness, Attraction, Retention, Career Success and Global Competitiveness.

**Cost structure:** NA

**Funding:** NA

**Other interest point(s):** Next steps include the organization of summit participants into workgroups to develop meaningful post-summit activities, programs, and project implementation. Programs might include new: curricula, teacher professional development programs, innovations to STEM instruction, and policy recommendations.