

Overview

The Academy of Engineering answers an acute need for well-trained engineers by educating high school students in science, technology, engineering and math (STEM) and preparing them for postsecondary engineering colleges and careers. The National Academy Foundation, in collaboration with Project Lead the Way (PLTW) and the National Action Council for Minorities in Engineering (NACME) launched plans for the engineering-themed Academy in September for 2007.

The National Academy Foundation will open 13 Academy of Engineering pilot sites beginning with 9th grade classes in September of 2008. Plans call for the Academy of Engineering to grow into a national network of 110 Academies by 2010. The initial 13 pilot sites are located at these high schools in the following cities.

- Construction Trades, Engineering & Architecture – New York, NY
- Frederick Douglass High School - Atlanta, GA
- AJ Moore Academy - Waco, TX
- H. Grady Spruce High School - Dallas, TX
- East High School on Arcadia - Columbus, OH
- University High School - Los Angeles, CA
- EDT Academy Morse High School - San Diego, CA
- Patrick Henry High School - San Diego, CA
- James Madison High School - San Diego, CA
- Harmony Magnet Academy - Strathmore, CA
- Burton High School - San Francisco, CA
- Northwest Career and Technical Academy - Las Vegas, NV
- Evergreen High School - Burien, WA

The Academy of Engineering prepares students for post-secondary education in engineering-related majors. The Academy also readies graduates to pursue other concentrated fields of study that require a strong foundation in engineering, math, science and language arts.



San Diego, CA, JD Hoyer, President of the National Academy Foundation, announces the launch of the Academy of Engineering as students from the San Diego Unified School District listen.

Corporate Participation and Support

Through the Academy of Engineering, business leaders partner with schools by securing internships, volunteering in classrooms, acting as mentors and serving on local advisory boards. National partnerships with NAF position many of these engineering companies to engage their employees in Academies, assisting students to prepare for college and careers and providing their companies with an important workforce investment for the future.

Curriculum

The Academy of Engineering uses world-class engineering curriculum developed by Project Lead The Way, Inc. Its essential content is based on expertise from engineering and manufacturing industry leaders and education experts. Courses include:

- Introduction to Engineering Design
- Principles of Engineering
- Digital Electronics
- Computer Integrated Manufacturing
- Civil Engineering and Architecture
- Biotechnical Engineering
- Aerospace Engineering
- Engineering Design and Development

Along with their required courses, Academy of Engineering students take appropriate corresponding mathematics and science courses. NAF curriculum applies project-based learning and integrates literacy instruction through an extended inquiry process that simulates professional knowledge and workplace behavior.

Paid Internships

Each summer, Academy of Engineering students will work as paid interns at architectural firms, the aerospace and defense industries, telecommunications, as well as the engineering departments in a variety of corporations and industries.

Engineering Awareness and Support

The National Action Council for Minorities in Engineering (NACME) reinforces and enhances the Academy of Engineering educational experience by providing support to students, parents and the local community, which includes engineering-awareness materials, student scholarships and teacher grants. In addition, NACME provides vital connections between the Academies and the corporate, engineering and higher education communities.