STEM Inventory

Entry# 95

Program-Title STEM Center

Lead Center for the Advancement of Hispanics PoC Charles E. Vela, Executive Director

in Sci. and Eng. Edu.

Higher-Education-based

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Address 8100 Corporate Dr., Suite 410, Landover MD 20785

URL

Org-Type

Service-Region Nationwide

Type Student Program

Subjects General Science | Math | Engineering | Technology

Level Elementary School (K-5th grade) | Middle School (5-8th grade) | High School (9-12th grade)

Other-Objectives

Served-per-Year Demographics Hispanic or Latino

Content

Over the past 10 years, the Center for the Advancement of Hispanics in Science and Engineering Education (CAHSEE) has developed a system of programs geared at channeling, primarily Latino and other underrepresented minority, students into science and engineerin careers. These programs have proven to be successful in preparing Latino and other underrepresented youths to enter and succeed in science and engineering schools. CAHSEE is a non-profit organization registered in the District of Columbia with programs in Metropolitan Washington, New York, Chicago, Massachusetts, and California. The STEM program we run is a four-summer program designed to prepare pre-college students fifth through eleventh grades to enter and succeed in science and engineering at the colleges of their choice. During the first summer, students concentrate in learning mathematical abstraction, logic and syntax, and geometrical conceptualization and visualization. The second year, students learn model building of physical phenomena and/or economic systems. The third summer, students focus in developing mathematical and engineering intuition. Finally, the fourth summer, students learn to simplify complexity by focusing in mathematical and scientific analysis and synthesis. These four areas of concentration: mathematical abstraction, logic and syntax visualization, conceptualization, model building, intuition analysis, and synthesis constitute the

fundamental basis for outstanding success in science and engineering.

Outcomes

CAHSEE's programs are aimed at developing students' intellectual abilities, thus providing them with a sound academic foundation to bolster their professional expectations, attitude, and motivation towards learning and commitment to excellence and educational success. This is done by placing the students in a demanding, yet nurturing, academic environment. Rigorous academic demands in a can-do atmosphere have proven to have a marked effect on the future performance of CAHSEE students in math, science and engineering college programs.

Started Funded-Through

Length Ongoing Cost

Primary-Funding Primary-\$

Materials

Other-Funding

How-Assessed

Best-Practice-Why

CAHSEE's rate of success is very high. All STEM Institute students enter and excel in college, mostly in science and engineering. Many attend some of the nation's top universities; many receive scholarships. The college graduation rate for CAHSEE alumni is 100% with 70% entering graduate school upon two years of graduating from college. Many of our former interns are currently enrolled in or have completed doctoral or master's degree programs.

Promising-Practice

Sponsor-Phone Sponsor-Email

Other-Orgs

George Washington University The City College of New York Merrimack College University of Chicago NASA InterAmerican Development Bank Society of Hispanic Professional Engineers Society of Mexican American Engineers and Scientists