

Students discover the building industry

By **Roger Showley**, Union-Tribune Staff Writer

2:00 a.m. May 17, 2009



Nicolas Uribe (left) and Jensen Landers (right) got tips from mentors Travis Weaver (middle) and Andrew Nash. (Earnie Grafton / Union-Tribune) -

An hour after Patrick Henry High School let out on a recent Thursday, Room 416 was still buzzing with students and visiting adult advisers.

Some were at computer stations, manipulating software and presentation programs. Others were at a table cutting and gluing a model of a proposed 1,000-seat performing arts center.

Similar scenes were unfolding at seven other area high schools – Castle Park, Eastlake, Helix, Hoover, Kearny Mesa, San Diego and Southwest – all participating in the ACE Mentor program.

ACE stands for architecture, construction and engineering. The program, started in New York City in 1991, aims to introduce students to the building industry field. Nationally, there are 136 chapters around the country with about 8,000 students and more than 3,200 mentors. Locally nearly 200 students and 50 mentors are involved.

The local program, chaired by Alan Petrasek, senior vice president of Clark Construction Co., will culminate in a banquet Wednesday, where the student teams will share their projects and \$100,000 in scholarships will be awarded.

Patrick Henry student Nicolas Uribe, 17, who plans to major in electrical engineering when he attends San Diego State University this fall, said ACE Mentors taught him that many disciplines are involved in planning a building.

"I've learned that it takes a lot of requirements to design a building," he said. "You have to build it a certain way or it won't function properly."

Eric C. Soldau, an architect with Architects Mosher Drew Watson Ferguson, was coaching a Patrick Henry freshman, Jonathan Strohl, 14, through a computer-aided-design rendering for the art center.

"I really like hands-on stuff," said Soldau who got his first look at engineering and architecture at Pershing Middle School. "I enjoyed it a lot."

When the computer crashed, Soldau said, "This is a real-world experience," and related how he had the same thing happen three times in one competition, in which he came in first place in spite of the snafus.

Kathy Schulze, who teaches math and engineering at Patrick Henry, said the ACE Mentor club began with about 30 students and has dwindled down to about 15 regulars, as students peeled off to pursue sports and other extracurricular activities.

On the other hand, students who don't have time to take her classes join ACE to get practical experience in a field they might pursue.

"I think the idea of looking at design of something that very probably will be used in the future has helped motivate them," she said, adding that without the mentors, the program couldn't function.

One person following the students' work closely was Matt Kalal, the music teacher and band leader. Since he arrived at Patrick Henry 12 years ago, Kalal has been lobbying to replace the outdoor 2,500-seat amphitheater with a real performance space suitable for music, drama and other events.

When campus planners began mapping out capital improvement projects, Kalal stepped forward with the ACE Mentor students' initial plans for an arts center, which he learned about after the club had already picked it as their first project.

"It's higher on the needs list," Kalal said, partly as a result of the students' conceptualization of what might be done.

But there's one sticking point. As with many a building project, it's the money that matters. Two weeks before the deadline, the team responsible for providing a cost estimate was still gathering data to plug into a spreadsheet.

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