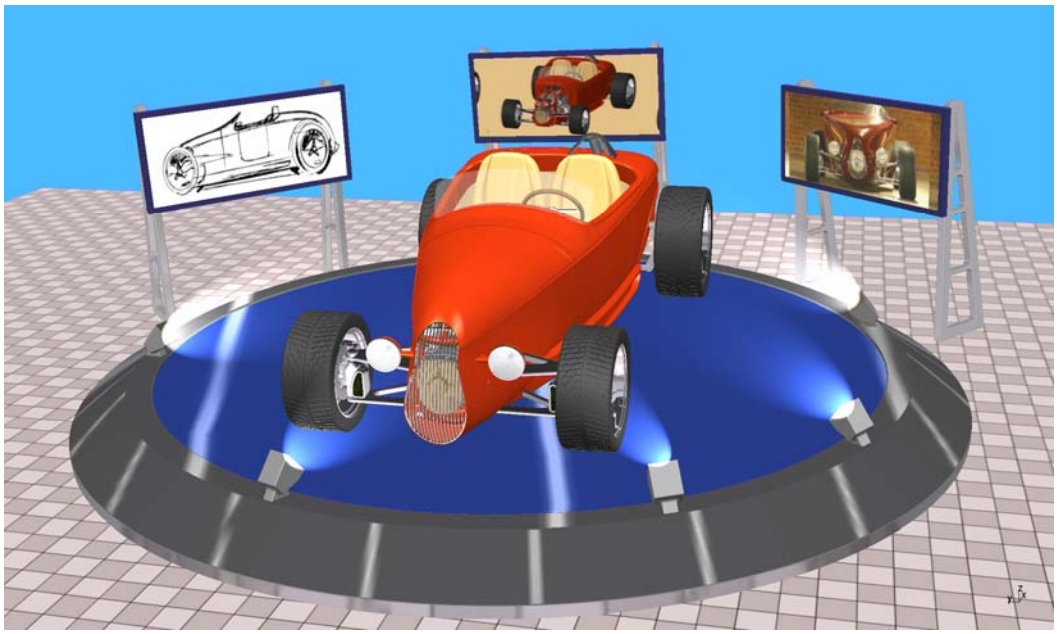
Collaborate and Compete
Lessons from Cal State Los Angeles

When students at California State University, Los Angeles graduate from an engineering program, they know where they stand in the job market. By benchmarking themselves against their peers at other schools, Cal State students learn the value of team-work and how to compete to win. Increasingly, these are values that employers demand.

Cal State Los Angeles graduates approximately 90 engineers each year. The first year programs are traditional in the concepts that they cover. However, thanks to the progressive leadership of Dr. Virgil Seaman, these students have access to the breakthrough technology and highly relevant projects for their classes. For example, in a freshman level class, Dr. Seaman introduces students to concepts in the golf industry. Students use the Imagine & Shape work-bench available in CATIA V5 to formulate the concepts for a putter and a driver. The "clay modeling" style tool allows for students to quickly and easily develop complex surfaces with minimal design experience.

It's in the junior and senior level courses where the differences in the Cal State Los Angeles program become even more apparent. At these levels the students are encouraged to do two things:

1. Work as a team, using the most appropriate software available, and
2. Compete against other student groups.

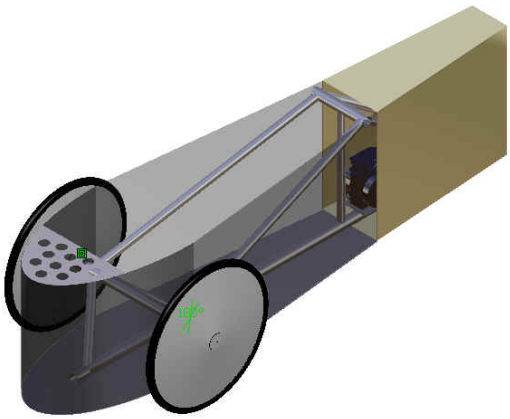


-32 Roadster, done by Daniel Ochoa using CATIA V5

Participating in external competitions is not unique to Cal State Los Angeles. However, the number of competitions is unusual for such a small student body. These students participate in:

- Formula SAE
- Mini Baja
- SAE Super Mileage
- Westec Manufacturing Challenge
- SAE Human Powered Vehicle

Beyond the motivational value of competition, Dr. Seaman sees value in the team building opportunities that these programs provide. "Team work is one of our educational imperatives at Cal State," said Dr. Seaman. "We extend the engineering team experience to include project and process management, document management, PDM, work-flow and time management."



Cal State L.A.'s first SAE competition vehicle modeled using CATIA V5 in 2000

Always pushing the technology envelope, through his relationship with ENGINEERING.com, Dassault Systèmes Academic reseller in North America, Dr. Seaman is currently implementing ENOVIA Smarteam at Cal State Los Angeles. He likes the product's ability to allow students to view any file, regardless of its native format. That's an important component of working in a large team.

For graduates of Cal State, some exciting opportunities exist. Not only are there many aerospace manufacturers in the area, but two graduates recently turned their expertise into careers at Honda Performance and Development where they use CATIA V5 for High Performance engine design. That's just one of the many exciting career opportunities afforded these graduates. Employers are demanding their combination of core engineering and modeling skills along with their team-work and self-management competencies and leading edge software skills.

-Cal State –LA 2009 SAE Supermileage team