



The properties of concrete vary according to its ingredients. Here, John Ennis tests the strength of a concrete recipe by breaking a cylinder in a test machine.

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crunching. Engineers have to know how to organize people, time and money to get the job done. And they have to know how to communicate effectively."

To help students practice these skills, the national ASCE organization began sponsoring concrete canoe competitions as part of the annual student chapter conferences. For the competition, ASCE student groups design and build their own canoes each year. Not only must the canoes float, but they're raced against other schools' boats. Papers and speeches are also part of the competition. With a trim 170-pound canoe in 1993, the Fresno team placed third overall in the Mid-Pacific competition.

Though the student chapter is involved in other activities such as hosting professional speakers on campus and working on service projects, ASCE member John Ennis says that the canoe and other

"If we're just as competitive as other universities, like Berkeley and Cal Poly, young people will stay in the Valley. CSU Fresno is very competitive."

John Ennis,  
ASCE member and  
former president

**T**hey're not varsity athletes. But if the students in the American Society of Civil Engineers look like a team, that's because they're learning to work effectively with others in their field, just as a team would.

"Civil engineering is not an individual-type profession. You have to learn how to network and how to work with others toward a common goal," says Professor John Johnston, the club's adviser. "Civil engineering projects in the real world require a lot more than just number

The results of months of planning and construction are about to be put to the test as ASCE members prepare to launch their concrete canoe for the first time. Shown in this picture is the 1992 canoe, which weighed in at 260 pounds.

competitions are an important part of his learning experience.

"We have a lot of fun putting each other to the test and coming up with solutions for better structures and projects for society," Ennis says. "As for the canoe, it's a great satisfaction to know that you built something and *it works.*"

