

EDIBLE CARS MAKE GIRLS WINNERS!

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An annual Engineering Week and its Edible Car Contest are attracting high school and college students to Texas Woman's University and to engineering as a possible career. Teams of three students each, including at least one female student per team, build small cars out of edible materials and race them down a ramp to see if the cars will survive. Engineers and other design experts judge the cars according to selected criteria. Students are interviewed by the judges regarding teamwork and modifications made in their initial car design.

In the spring of 1998, Texas Woman's University initiated its own annual Engineering Week in an effort to introduce more female students to engineering as a career choice. Raytheon, Inc. of Lewisville, TX served as sponsor of the Week's events, along with the TWU Department of Mathematics and Computer Science. Funds also came from the NSF Foundation Coalition grant in which TWU participated with six other universities.

The first year's events included displays in the main library throughout the week of famous women in mathematics, science, and engineering. These displays were provided by the Dallas Chapter of the Society of Women Engineers. An Edible Car Contest was held for both university and high school students on Friday morning, climaxed by an awards luncheon with a guest speaker. The guest speaker was a NASA engineer, who also was a graduate of TWU. Teams of four students were required for the car contest with no restrictions on team membership. Because of scheduling conflicts, the contest was held in early May, which proved to be too late in the semester to attract high school teams. Only a few college teams participated, but enthusiasm was high!

For the 1999 Engineering Week, the first week in March was selected. This proved to be a much better time for the contest. Twenty-two high school teams registered, along with nine university teams. New restrictions were placed on the team configuration. Teams now had to have three members, at least one of whom had to be a female student. On university teams at least two members had to be TWU students. This was to insure that females and TWU's own students were involved in the effort to introduce them to engineering, which was our primary focus. Raytheon, continuing as our corporate sponsor for the second year, provided cash prizes for the top three teams of the contest and Engineering Week T-shirts for all contest participants. An awards luncheon was held again on Friday, and our guest speaker was a female civil engineer from Dallas.

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New events of the Week included two additional women as guest speakers. One was a software engineer who spoke to several combined classes and the other was a systems engineer who spoke at a noon meeting of the Association of Computing Machinery (ACM), our student organization for mathematics and computer science majors. The noon speaker was also TWU's first graduate of our 3+2 or dual degree program in electrical engineering with the University of Texas at Dallas. In the Student Center main lobby, a videotape was played continually and daily, featuring a different video each day from the excellent series, NOVA Adventures in Science: "Secrets of Lost Empires." This series consists of engineers and other specialists working together to replicate famous wonders of the world, such as Stonehenge.

The year 2000 marked our third annual Engineering Week and Edible Car Contest. The weekly schedule and times of the second year had been successful, so were maintained in 2000. The result was 49 teams of students participating in the Car Contest with 55 car entries (6 teams had more than one entry). There were 14 university teams and 35 high school teams involved in the contest. Texas Instruments became the new corporate sponsor for the Week's activities. The large increase in college student participation indicates that our promotional efforts to introduce more TWU students to engineering are at last beginning to produce results. If such interest continues to grow, we will begin to offer awards at two levels: high school and college. In 1999, two TWU teams and one high school team were the winners; in 2000, all three winning teams were high school teams. So far, there does not seem to be any difference in performance between the two age groups.

Beginning in 1999, we added an extra feature to the car contest for "crowd control." The high school teams were split into two groups. One group remained to have their cars judged, while the other group was taken on a brief tour of the TWU campus by several of our student tour guides. The tour lasted approximately thirty minutes; the two groups then rotated. The final stage of judging involved rolling the cars down a long ramp to test its durability and to measure its speed. Most students were content to stay in the large meeting room and cheer each car down the ramp, so no other concurrent activities were needed.

In addition to providing campus tour guides, the TWU Admissions Office provided each high school student with a bag of TWU information brochures. Hopefully these students will think of TWU when it is time for them to select a university.

Pictures of cars from the contest can be seen on the web site for the TWU Department of Mathematics and Computer Science: www.twu.edu/as/mathcs/special/. The Edible Car Contest has received media coverage in the Dallas and Fort Worth newspapers, as well as on area cable television.