



STUDENT  
ENGINEERS  
KICK OFF THEIR  
SCHOOL CAREERS  
WITH A WACKY  
TERM PROJECT  
THAT IS MORE  
THAN JUST  
FUN AND GAMES.

BY DEBRA LEVY MARTINELLI  
Photos by Robert Taylor

This fixed-distance air cannon was one of many student-designed contraptions aimed at providing a memorable introduction to engineering by flinging pumpkins through the air.



# Beware *The Flying* Pumpkins



TOP: An array of long-distance (3/4 mile) air cannons greets Pumpkin Toss spectators. The competition winner, at 7/8 of a mile, topped the world record set by a professional group of “punkin chunkers.” OU is the only U.S. university in the pumpkin-tossing business. BOTTOM: Contestants in the short-range, slingshot design division hurl a pumpkin down the firing range on OU’s North Campus.

They fly through the air with a whoosh and a zing, and land with a thud or a splat, showering the Oklahoma autumn sky with bursts of color. They are pumpkins, Charlie Brown-pumpkins that are ejected from cannons, catapults and even cars as part of the University of Oklahoma College of Engineering’s annual Pumpkin Toss.

Since it began in 2001, the event has become a local favorite, with family, friends, neighbors and passersby watching in awe as freshman students in the Introduction to Engineering course fire up the contraptions they have designed and built, sending those round, colored gourds off into the atmosphere.

The Pumpkin Toss was adapted by electrical and computer engineering professor John Fagan from similar national and regional competitions as a way for students new to the College of Engineering to start their academic careers with, well, a bang.

“I was looking for a contest that freshmen could participate in and that they would remember for the rest of their lives,” says Fagan, who, with industrial engineering professor Hillel Kumin, teaches the course. “I mean, how many





An exuberant professor John Fagan watches the finale of the course he teaches with engineering colleague Hillel Kumin.



With skies threatening more of the rain that had drenched the firing area, engineering student Riley Wade Douthit, in a scene reminiscent of the movie *Dr. Strangelove*, mounts his air cannon to take aim on a target down range.



people have ever built a device to toss a pumpkin a mile?"

The object of the competition is for each eight- to 10-member student team to design and build a launcher to "toss" a pumpkin, without crushing it, at a select group of targets 250 feet to three-quarters of a mile away. One 2004 team hurled a pumpkin approximately seven-eighths of a mile (4,620 feet), shattering the world record by more than 800 feet.

Student Krystal Bessey, whose team built an air cannon made from a propane tank, valve and 15-foot pipe, says she was shocked when she first learned that she and her classmates would be expected not only to design and build the device but also to obtain corporate sponsorship to underwrite the costs of the project.

"I had never been a part of anything that compared to this. It was a big 'Welcome to College!' " she says. "[The Pumpkin Toss] made me realize that I was finally being educated on what I would be doing for the rest of my life, and this was

only the beginning; the projects to come would be even bigger and more exciting."

In past years, only students in the Introduction to Engineering course have participated in the project. But Fagan said the public's enthusiasm prompted him and Kumin to extend an invitation to course alumni and members of the public to participate in the 2004 competition.

"The Pumpkin Toss really captures people's imaginations," he says. "Students tell me it's one of their greatest college experiences because they have an early, hands-on experience as well as an opportunity to get to know other students with whom they'll study and socialize over the next few years. Parents tell me they've never seen their children so excited about doing anything in their lives."

Bessey's Pumpkin Toss experience has only solidified her decision to pursue an engineering career. "It was a lot of responsibility, and a lot of faith was put in us. I realized that there is more to engineering than the actual job description. It's about teamwork and maxing out your imagination. This competition confirmed that engineering is what I want to do for the rest of my life."

ABOVE LEFT: Parents at the annual competition nearly outnumber participants, many citing the Toss as the highlight of their offspring's OU experience.

BOTTOM: At an air cannon's breech end, ammunition awaits launching.

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