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'Even More Apps for That' at USU Physics Day at Lagoon, May 17



STEM when STEM wasn't cool: For more than two decades, USU Physics Day has introduced aspiring scientists to the fun and excitement of basic physics concepts using — what else — an amusement park.



Two USU Physics Day participants carry their entry for the 'Thrill Ride Design of the Future Contest' through Lagoon's gates. The annual event features a variety of competitions and opportunities to win scholarships and prizes.

What's more ubiquitous in a Rocky Mountain high school than chewing gum and the latest teenage heartbreak rumor? That would be cell phones, of course, and often smartphones. With these mobile devices comes a perfect opportunity to learn basic scientific concepts.

Really? Absolutely! And organizers of Utah State University's 2013 Physics Day at Lagoon are making the most of their annual rite of spring to teach teens the fun of science is right at their fingertips — even after they leave the thrills and chills of northern Utah's favorite amusement park.

“Smartphone applications allow users to collect data with electronic protractors, levels, stopwatches, acceleration sensors and more while flying through the air on a rollercoasters or tilt-a-whirl,” says USU graduate student Milo Maughan, organizer of 2013 USU Physics Day, which is Friday, May 17, at Lagoon. “But you can apply these applications to everyday activities, too. It's a fun and exciting way to practice what you've learned in the classroom.”

For the 24th year, Davis County's überplayground is opening its doors to more than 5,000 aspiring scientists from Utah, Idaho, Wyoming and Nevada to transform the park into a giant laboratory to explore such basic physics concepts as gravity, projectile motion, centrifugal forces and energy.

Physics Day participants will still zoom through roller coaster loops

measuring G-forces with their carefully crafted wrist accelerometers as their predecessors have done for more than two decades. But USU students will also guide them in smart phone applications to try out on rides, along with a new application that allows users to take light filtered through a diffraction grating and display it on a color spectrum.

Along with high-tech gadget fun, Physics Day includes such perennially favorite competitions as bombing a giant bull's eye with raw eggs in self-designed protective containers from the Sky Ride (nearly 1,000 eggs plunged to their doom last year), vying in robotics grudge matches and displaying ideas for thrilling rides of the future. For the fourth consecutive year, middle and high school teams will compete in an engineering challenge to design and build energy-generating windmills for a chance to advance to the national MESA USA Wind Energy Challenge this summer.

The day also includes the annual Physics Bowl competition, in which nearly 100 hopefuls in three-person teams will vie for more than \$120,000 in scholarship awards. Six students in the top two teams will receive full, four-year scholarships to USU, along with two semesters of free textbooks.

USU Physics Day is one of Utah State's largest and longest-running outreach and recruitment events. Since its inception in 1990, more than 125,000 teens have participated in the yearly gathering.

“What better laboratory to entice young people than an amusement park?” says J.R. Dennison, USU physics professor and a founder of the popular event.

2013 Physics Day sponsors include Idaho National Laboratory, ATK Space Systems, Boeing, Eastern Idaho Regional Medical Center, Hill Air Force Base, Lagoon, Micron, Portage Environment, Pasco Scientific, Rocky Mountain NASA Space Grant Consortium, Space Dynamics Laboratory, U.S. Navy, the USU Campus Store (Bookstore), USU College of Science, USU Emma Eccles Jones College of Education and Human Resources and the USU Admissions Office.

Related links

- [USU Physics Day at Lagoon](#)
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