

Media Advisory

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Annie Reisewitz

Scripps undergraduate class introduces the physics of surfing

Scripps Institution of Oceanography/University of California, San Diego

What: UC San Diego freshmen will conduct a wave-riding experiment to study the physical properties at work when surfers paddle to catch waves at one of San Diego's finest surf breaks. The field experiment is part of a UC San Diego freshman seminar class titled "The Physics of Surfing," taught by Professor David Sandwell of UCSD's Scripps Institution of Oceanography.

When: Saturday, May 2, 2009, 8:30 a.m.

Where: Scripps Pier, 8648 Kennel Way, La Jolla, Calif. (formally Discovery Way)

Who: David Sandwell, professor of geophysics at Scripps Institution of Oceanography at UC San Diego; Stefan Llewellyn Smith, associate professor of Mechanical and Aerospace Engineering; and UC San Diego freshman students.

Why: Professors Sandwell and Smith, along with students, use a GPS device and an accelerometer, a device that measures speed, to study the physics behind surfing. A student volunteer rides a surfboard into the waves while the devices measure speed and acceleration. Following the experiment, students analyze the data to determine the physical properties, such as speed, velocity and friction as the board and rider move with the wave.

The course is part of the university's freshmen seminars program, which allows students to explore interesting topics and introduces them to research methods. Students learn about the physical forces creating waves and the laws of fluid mechanics that govern how surfboards move through water.

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