USU Classroom Outfitted for Student Stress Research

College of Engineering

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News Release - LOGAN, UTAH, Dec. 12, 2016 – Utah State University will soon be home to a specialized classroom designed to measure the triggers and effects of student academic stress.

Dr. Idalis Villanueva, an assistant professor of engineering education at USU, is the principal investigator and is targeting her research around engineering programs.

Assistant professor Idalis Villanueva won a grant from Steelcase to furnish a classroom equipped to test student stress.

Villanueva said that these programs are known for being stressful and sources show that stress, when left untreated, can have negative effects on the physical and mental well-being of students.

“I thought, wouldn’t it be great to have a classroom dedicated to looking at these stress levels in students?” Villanueva said. “So rather than having to jump classroom to classroom, we could just have a dedicated space where students’ academic stress could be measured throughout their classroom experience.”

A classroom was provided to Villanueva to conduct research in, but it was missing key components, like modular furniture. So she reached out to Steelcase, a company specializing in making furniture for active classroom environments. They teamed up with Villanueva and furnished the classroom with specialized tables and chairs, picked out specifically for their functionality and versatility.

However, the classroom is just the first step.
Left to right: Amie Baisley, Idalis Villanueva, Darcie Christensen, and Laura Gelles will use sensors to measure the heart rate, blood volume, blood pressure, temperature, mobility, and sweat of student participants.

“My goal with my research is to eventually develop a stress management curriculum that would help students manage their academic stress in real-time,” Villanueva says.

Students who choose to participate in the study will be offered the opportunity to wear non-invasive wrist sensors similar to Fit Bits. These wristbands will measure heart rate, blood volume, blood pressure, temperature, mobility, and even sweat, and send real time results back to the researchers.

The classroom is located in SER 134 and is expected to be up and running no later than fall 2017.

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