Physics Major Claims UTeach Honor

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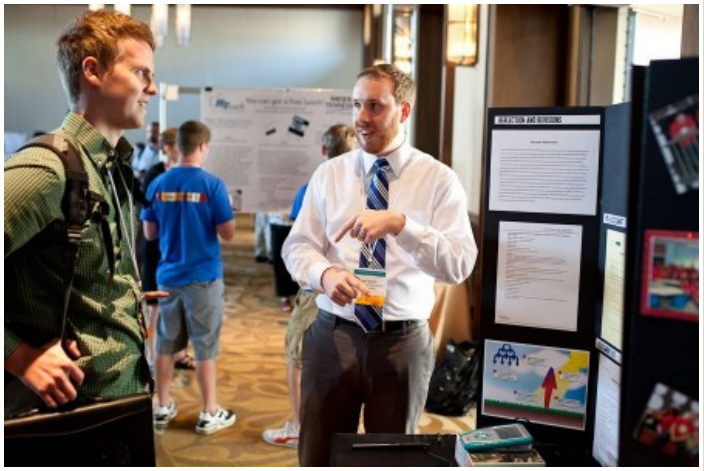
Joel Smith, an undergraduate physics major enrolled in the university's VolsTeach progam, was one of two UTK students invited to the 5th Annual UTeach Institute-NMSI Conference, where he walked away with a student poster prize.

Launched at the University of Texas in 1997, UTeach was designed as a fresh approach to preparing secondary science, math and computer science teachers. By removing traditional barriers to certification, the program allows math and science majors to finish their degrees, learn from field experiences, and swiftly enter the teaching field. The UTeach Institute, established in 2006, seeks to replicate the program nationwide. The UTK program, begun in January 2010, is called VolsTeach. Each year, students, educators, policy-makers, and sponsors gather at the UTeach Institute-NMSI (National Math and Science Initiative) Conference to share ideas and successes on math and science teacher preparation in the United States. The 2011 meeting was held May 24-26 at the University of Texas in Austin and enjoyed record attendance, with more than 400 participants and 88 total sessions.



Joel Smith presents his award-winning poster at the 5th Annual UTeach Institute-NMSI Conference. (Photo courtesy of the UTeach Institute.)

Smith, a senior in physics, was one of 26 students, faculty, and staff who presented posters in a competitive session. His poster, entitled "Technology Based Lesson on Weather Predictions and Data," won the Open Topic category, one of two categories for students. (Shannon Phillips and Kristen Bentley from Cleveland State University won in the second: Course Exposition, for their poster, "Learning About Teaching in Functions and Modeling.") Smith's poster was an analysis of a technology-based lesson he developed to teach weather and atmosphere from the perspective of a scientist. The goal was to examine the fundamental concepts of radiation, convection, and conduction and how they contribute to weather, as well as to show students how scientists measure them in the real world. Students used probes, sensors, and measuring tools to gather data about humidity, pressure and temperature, comparing their results with a local forecast. They were encouraged to explain possible discrepancies and how they could go about making rudimentary predictions based on what they found and what they know about the physics of convection cycles and other concepts related to atmosphere and weather. Smith taught the lesson to a 6th grade science class.

"My inspiration came from a conversation I had with (Physics Professor) Stu Elston about how younger students didn't get a proper introduction to the benefits of physics prior to high school," he said. "I took this lesson as an opportunity to showcase the importance of physics and the everyday careers that use it to help society as a whole."

Smith received a certificate and a $200 prize for his efforts. He is part of the first wave of UTK students to come through VolsTeach, a program that spoke to his combined interests of physics and service.

"I was inspired to join VolsTeach because my passion for physics was something that I wanted to utilize for good and when I heard about how VolsTeach offered you the opportunity to get certified to teach in your major I looked at that as a big opportunity for me," he said. "Not only would I graduate with a degree in physics and pursue other opportunities in my field, but I could also go into a high demand job almost immediately after graduating."