

METEOROLOGY IS EXPANDING THE SCIENCE CORE CURRICULUM AT THE UNIVERSITY OF HOUSTON-DOWNTOWN

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The University of Houston-Downtown (UHD) is an urban university located at the northern edge of Houston's dynamic central business district. It is recognized as a Hispanic Serving Institution and as a Minority Serving Institution. It is one of the main centers of higher education for Hispanics in Texas.

UHD is primarily an undergraduate liberal arts university offering standard undergraduate degrees. In the last three years the university has added two master degree programs in criminal justice and urban education. The UHD Natural Sciences Department, which is expanding its science course offerings this year by offering a meteorology course using the Online Weather Studies program of the American Meteorological Society, offers undergraduate degrees in biology, biological and physical sciences, biotechnology, chemistry, industrial chemistry, microbiology, and physics.

According to the *U.S. News & World Report* 2003 edition of *America's Best Colleges*, UHD has the most diverse student population of any liberal arts university in the Western U.S. Its fall 2003 enrollment was 10,974 students. The ethnic breakdown of the students is as follows: 36% Hispanic; 27% African-American; 24% Caucasian; 10% Asian; and 3% other. The ethnicity of the university mirrors the multicultural and multilingual character of the City of Houston.

The new Online Weather Studies course, Introduction to Meteorology (Geology 1304), a new science core curriculum course, will be taught during spring 2004. The Online Weather Studies exercises were used during summer 2003 in teacher enhancement workshops for secondary science teachers of the Houston Independent School District through the Houston Urban Learning Initiatives in a Networked Community (HU-LINC). This is a National Science Foundation supported program. The weather exercises have also been used in a junior-level Earth Science class for education majors. In the spring of 2004, the exercises will also be used in a HU-LINC Meteorology Workshop for elementary school teachers. Some of the Online Weather Studies exercises will also be used in the Selected Topics in Earth and Environmental Science graduate course, which is a part of the Urban Education master's degree.

This year the university received a four million dollar, five-year grant from the U.S. Army Research Office to develop the UHD Urban Center for Student Success in Science, Technology, Engineering and Mathematics (UCSS/STEM). Through the Houston Urban Network for Science, Technology, Engineering, and Mathematics (HUNSTEM) teacher enhancement workshops that integrate science and technology will be a component of this endeavor. The Online Weather Studies will be used in some of the workshops.

In addition to the American Meteorological Society's Online Weather Studies data and maps that the students will use in the Introduction to Meteorology course, they will also have access to data from the Weathernet (Weatherbug) network of stations. During fall 2003, a local television station, KPRC, which is a member of the network, donated the Weathernet meteorological instruments package to UHD.

The short-term goal of the *Online Weather Studies Diversity Project* is to make minority undergraduates more aware of the geosciences, of opportunities for internships and summer employment, and more advanced study. A long-term goal of the program is to encourage more minorities to enter the workforce as geoscientists or geoscience teachers. The University of Houston-Downtown, in cooperation with the American Meteorological Society, is helping in achieving that goal.

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