The Earth Science Revolution in Texas

Katherine Ellins » Institute for Geophysics, University of Texas at Austin

In 2006 the Texas State Board of Education (SBOE) voted to require a fourth year of science for graduation from high school and to authorized the creation of a new senior level Earth and Space Science course as an option to fulfill that requirement. The creation of the new Earth and Space Science capstone course is an important opportunity to promote long-lasting transformation in the teaching of earth system science in Texas, a state with a minority school-age population of over 50%, impacting hundreds of thousands of teachers and students over many years. UNAVCO is playing a role in the K-12 Earth Science revolution taking place in Texas by providing high quality, rigorous curriculum resources to support teacher preparation projects being carried out by The University of Texas at Austin Jackson School of Geoscience (JSG) is carrying out in collaboration with the Texas Regional Collaboratives for Excellence in Science Teaching (TRC). TRC is a statewide network of teacher mentors and science teachers with a 15 year history of exemplary teacher professional development.

UNAVCO materials and resources were used in the following projects:
The “Texas Earth Science Revolution Workshops”, a series of three two-day earth science professional development academies offered in fall 2006 to minority-serving teacher mentors and Texas Education Service Center science education specialists by the JSG’s Institute for Geophysics, the TRC and TERC. The Texas Education Agency funded these workshops.

“Special Topics in the Geosciences”, a course taught by UTIG* researchers to undergraduate STEM majors and pre-service teachers at Huston Tillotson University, an HBCU**, in spring 2006. The course was part of an NSF-sponsored pilot project to promote diversity in the geosciences and incorporated instructional strategies designed to prepare teachers to teach science by inquiry, rather than by lecturing, and use online resources such as UNAVCO’s Jules Verne Voyager. Jr.

The new Texas capstone course is truly a rigorous and dynamic change to the way Earth and Space science has been presented before anywhere in the U.S. and will continue to provide additional opportunities for professional development and the dissemination of suitable earth and space science curriculum. UNAVCO will nurture the relationship established in Texas and seek suitable opportunities to collaborate with academic institutions, school districts, and organizations on geoscience education projects that advance earth science education in Texas and which are compatible with UNAVCO’s mission.

*University of Texas Institute for Geophysics
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