

2006 Philadelphia Annual Meeting (22–25 October 2006)

Paper No. 145-13

Presentation Time: 8:00 AM-12:00 PM

DELAWARE GK-12: IMPROVEMENT OF SCIENCE EDUCATION IN VOCATIONAL TECHNICAL HIGH SCHOOLS THROUGH COLLABORATIVE LEARNING AND COTEACHING

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The University of Delaware (UD) in partnership with the New Castle County Vocational Technical School District (NCCoVoTech) in Delaware with funding from the National Science Foundation is instituting a GK-12 Program. In each year of this program, nine full time UD graduate students in the sciences, who have completed all or most of their coursework, will be selected to serve as fellows. Fellows will be paired with high school science teachers from NCCoVoTech. These pairs, along with the principal investigators (PIs) of this program (the authors of this abstract), will form a learning community that will have the opportunity to examine and to reflect on current issues in science education while specifically addressing critical needs in teaching science in vocational technical high schools.

By participating in summer workshops and follow-up meetings facilitated by the PIs, the fellows will be introduced to a number of innovative teaching strategies including problem-based learning (PBL). During the academic year, fellows will engage in coteaching with their teacher partner. In this “teaching at the elbow of another”, fellows will gain a better understanding of and appreciation for the complexities and nuances of teaching science in vocational technical high schools. Fellow/teacher pairs will have the opportunity to develop PBL activities, aligned with curricular needs, to allow their students to experience the benefits of guided-inquiry learning environments.

While not taught as a stand-alone course in NCCoVoTech high schools, earth science topics are integrated into the science curriculum at nearly all levels from the freshman through the senior year. Three of the current group of nine fellows are engaged in Ph.D.-level research within the disciplines of astronomy and hydrology. They will bring this expertise into their collaboration with their practicing teachers with the goal of improving the understanding of earth science topics by high school students within a vocational technical school setting.

[2006 Philadelphia Annual Meeting \(22–25 October 2006\)](#)
[General Information for this Meeting](#)

Session No. 145--Booth# 98

[GK12 \(Graduate-K-12\) Education: Improving Understanding of Geologic Concepts at All Levels \(Posters\)](#)

Pennsylvania Convention Center: Exhibit Hall C
8:00 AM-12:00 PM, Tuesday, 24 October 2006

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