

Where in the world....?

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Where in the world is western Steuben County? Like the popular computer-based game "Where in the World is Carmen San Diego?," a new technology-based geography curriculum being developed by Alfred University in conjunction with four area schools will help students answer that question - right down to the last degree of longitude and latitude. Jasper-Troupsburg Central School, Addison Central School, Greenwood Central School and St. Ann's School in Hornell will work with faculty and students in Alfred University's Environmental Studies and Education departments to develop the curriculum based on Geographic Information Systems and Global Positioning Systems technology under Dr. Diana Sinton, assistant professor of geography and environmental studies. Teaching geography today is much more than how many miles from point A to point B, says Dr. Glenn P. Niles, assistant professor of education at Alfred University, who wrote a successful application for a New York State Learning Technology Grant of nearly \$35,000 to fund development of the new curriculum. "Through geography, students can better describe and understand the world around us," said Niles. "No other academic discipline is as well suited to teach students about the interactions between humans and their environment." But the "press of teaching other social and physical sciences" often means that geography is paid scant attention, said Niles. "Students and teachers are often distracted by such tasks as memorizing distances, yet those tasks are meaningless if students are not provided with additional geographic context and background information." Alfred University faculty and students will work with seventh, eighth, and ninth grade science, social studies and technology teachers and their students from the four schools. They will develop on projects that will allow the younger students to identify and map their local and regional landscapes, using Alfred University's Geographic Information Systems (GIS) Laboratory. GIS is a computer-based method for organizing spatial data performing spatial analyses, and generating maps, Sinton explained. Combining satellite imagery, Global Positioning Systems and GIS, the students will then develop multimedia presentations in which they will explore the basic scientific and social explanations of natural phenomena and changes in their region, Sinton said. Students will share their presentations with those at the other participating schools via the internet or distance learning facilities. "This will give the students an opportunity to compare their own region with the regions around them and to explore the similarities and differences among the regions," said Niles. Niles notes that the project will provide opportunities for learning across many curricula. "For example, in science, they might look at glacial deposits, and how they affect the topography of the region, while in social studies, they might explore how the topography influenced development of specific industries in this area, such as agriculture or lumber," said Niles. "Math comes in when they learn how to organize and analyze the information. Technology, of course, applies to how they can make the tools, from GIS databases to GPS plotters and internet-based presentation software, work for them in completing these projects. Through their presentations, they will gain an understanding of how to communicate complex information in a way that others will understand," he said. Furthermore, through the project, students will be exposed to a number of different career options, and be given an opportunity to investigate them. Alfred University faculty and students will be involved in providing extensive staff development for the teachers from the four districts. The University and the Southern Tier Teacher Center will "provide structural support and training for peer review to instruct teachers on the use of the technology, and more important, on strategies for integrating the technology into their curricula," said Niles. The goal of the state-funded program is to "provide authentic, action-oriented activities and learning experiences that raises student achievement through practical, experiential, project-based applications of theoretical knowledge," said Niles.