Educators Passionate About Preparing Future Workforce in Geospatial Technology

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Nineteen community college faculty and three high school teachers participated in an intensive one-week Regional Geospatial Institute coordinated by the Expanding Geospatial Technician Education Through Virginia’s Community Colleges (GeoTEd) project. Hosted by Virginia Tech, the Institute provided the cohort of educators with hands-on professional development in using geospatial technologies to support the implementation of these technologies in the classroom. Seventeen educators from Virginia’s community colleges and high schools participated in the Institute while one community college faculty from each of the surrounding five-state region (KY, MD, NC, TN, WV) attended.

GeoTEd partners include: Virginia Space Grant Consortium (VSGC), Virginia Western Community College (VWCC), Thomas Nelson Community College (TNCC), Southwest Virginia Community College (SWCC), J. Sergeant Reynolds Community College (JSRCC), Virginia Community College System (VCCS), and the Virginia Geospatial Extension Program in the College of Natural Resources at Virginia Tech. GeoTEd is funded by the National Science Foundation (NSF) through an Advanced Technological Education (ATE) grant (NSF #0903270).

Geospatial technology has been identified by the U.S. Department of Labor as a high growth industry, and includes the development, use, and application of geographic information systems (GIS), global positioning systems (GPS), and remote sensing. These tools are easily integrated together, as well as across disciplines. Geospatial technologies provide powerful visual and analytical tools that support decision making at all levels of government, the private sector, research, and beyond.

GeoTEd Institute participants received access to instructional materials, geospatial data, model academic pathways, and were introduced to GeoTEd team members who will support and mentor them during the three-year project. Participants also completed a field work exercise following a visit to Mountain Lake Resort in Pembroke, Virginia. For many community college educators, a major barrier to providing geospatial course offerings has been attributed to a lack of affordable training and professional development for faculty. Dr. John McGee, Virginia Geospatial Extension Agent said, “The GeoTEd Institute provides an intensive professional development opportunity for community college faculty and high school educators from across the Region. This Institute is an essential component to ensure that the geospatial industry has an available pool of qualified technicians now, and in the future.”
The Regional Workshop included faculty from the following colleges: Somerset Community College (KY); Community College of Baltimore County (MD); Edgecombe Community College (NC); Walters State Community College (TN), and; Bluefield State College (WV). “GeoTED is building on previous work by the VSGC, VCCS, and Virginia community college partners, and expanding to a Regional Institute is a great way to share best practices in geospatial technology workforce development to a broader audience,” stated VSGC Deputy Director Chris Carter.

The entire educator cohort will attend a follow-up Institute in summer 2014 hosted by Virginia Tech. Following the Institute, participating faculty are required to implement geospatial technologies at their high school or college. Ideas for implementation can include integrating the technologies into a class, starting a new geospatial course, or starting a new geospatial academic pathway. “Preparing and empowering the faculty to teach geospatial technology is our goal. With support and mentoring from us, we believe these educators will not only expose many more students to these technologies but prepare them to meet the increasing workforce demand,” said David Webb, VWCC.

Michelle Alexander, Health Instructor at TNCC commented, “Participation in the GeoTED Institute was an invaluable experience for me as an educator in the field of Public Health. I have transformed a class discussion on availability of fresh produce in the community, into an exercise where my students, using mobile smart phones, help to create a map of fresh produce available in our region. In addition, I have a group of students who will use these technologies to create a healthy campus map, identifying all the locations on our campus where an individual can participate in activities that support wellness.”

GeoTED is partnering with the Virginia Association for Mapping and Land Information Systems (VAMLIS) to also support the cohort with mentoring, data acquisition, and technical support for integrating geospatial technologies. VAMLIS members include representatives from business/industry, all levels of the public sector, and education.

The GeoTED project team includes: Chris Carter (PI), VSGC Deputy Director; David Webb (Co-PI), Associate Professor of Mechanical Engineering Technology and GIS Department Head; Cherie Aukland (Co-PI), Associate Professor of Information Technology and GIS Program Head, TNCC; Sandy Stephenson (Co-PI), Professor of Information Systems Technology, SWCC; Dr. John McGee (Co-PI), Geospatial Extension Agent, College of Natural Resources, Virginia Tech; Wen Andrews, Professor and Program Head, Architectural and Civil Engineering Technology, JSRCC; Dr. Scott Bellows, Ecologist and Technical Programs Coordinator, VSGC.

Attached is a list of educators participating in the GeoTED Institute cohort.

For more information on GeoTED, please visit http://geoted.org/.

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