Project Overview
Geospatial Technician Education Through Virginia's Community Colleges (GTEVCC)

VCCS Geospatial Institute
July 24-30, 2010

The VCCS Geospatial Workshop

• This workshop is one component of a much larger project
• This larger effort (Geospatial Technician Education Through Virginia's Community Colleges [GTEVCC]) is funded through the NSF/ATE

The NSF / ATE

• Advanced Technological Education grants are administered under the National Science Foundation’s undergraduate education division.
• The ATE program focuses on the education of technicians for the high-technology fields that drive our nation’s economy.
• Emphasizes partnerships between academic institutions and employers
• Emphasis on 2-year colleges
Background of this project
(The abridged version...)

- 2003 - VGEP and Bob Bailey (CVCC) established a VCCS / GIS focus group: challenges and needs established
- 2007 - VSGC, VCCS, TCC, JTCC, VWCC, and VGEP submitted full a NSF / ATE proposal – Denied
- 2007 - VSGC, VCCS, TCC, JTCC, VWCC, and VGEP submitted planning proposal to the NSF/ATE - Accepted

GTEVCC-Results from Planning Grant

- GST Workforce Needs Survey Completed (more on this later!)
- Virginia DACUM Created (more on this later!)
- Pilot Workshops Conducted
- TCC Established Certificate in GIS
- Webportal Planned

Background
(continued, abridged version...)

- Planning grant work set the framework for the 2008 full proposal
- Fall 2008 – Full proposal submitted to the NSF/ATE (“if at first you don’t succeed...“)
- Spring 2009 – Full proposal accepted 3 year grant
GTEVCC

Vision
Establish and grow three unique academic pathways in geospatial technology (GST) at partnering VCCS colleges to provide employers in Virginia with a larger pool of skilled geospatial technicians.

Pathways will serve as academic models for other VCCS community colleges.

GTEVCC

Overarching Project Goal
Continue to build a network of partnerships among community colleges, college faculty, business/industry and public sector (employers), universities, and national organizations to improve communication among all geospatial technology (GST) stakeholders across the state.

GTEVCC-Partners

• VSGC managing and administering on behalf of VCCS
• John Tyler Community College
• Tidewater Community College
• Virginia Western Community College
• Virginia Community College System (VCCS)
• Virginia Geospatial Extension Program at Virginia Tech
GTEVCC-Steering Committee

- Rodney Clayton-TCC, Co-I
- Dr. John McGee-VT, Co-I
- David Webb-VWCC, Co-I
- Dr. William Wyatt-JTCC, Co-I
- George McLeod-TCC Adjunct, GIS Systems Engineer-ODU
- Inez Farrell-VCCS, Director of Instructional Technology
- Stephanie Baird Wilkerson-Magnolia Consulting, External Evaluation
- Chris Carter-VSGC, PI

GTEVCC Advisory Committee

- NASA Langley
- Michael Baker, Inc.
- Timmons
- R&K Engineering
- James Madison University
- Virginia Geographic Information Network (VGIN)
- Mountain Empire CC
- Faculty Emeritus from Virginia Tech
- Virginia Department of Education
- ESRI

GTEVCC-Goals

(Community College Faculty)

Goal 1
- Build academic pathways in GST at three geographically dispersed community colleges that can serve as models for other community colleges. We’ll hear more about this throughout the week, as well as on Wednesday!

Goal 2
- Provide professional development for community college faculty and precollege teachers in Virginia to increase use of GST and to disseminate resources. This is “why you are here”. I think that it is the most important component of the entire project!
GTEVCC-Goals (Community College Faculty)

Goal 3
• Build the GST workforce pipeline by increasing enrollment in geospatial programs. Awareness efforts, GIS course offerings, and integration in other courses.

Goal 4
• Create and sustain a GST web portal to serve as a repository for GST pathway models, curriculum, professional development materials, and other resources. We will provide you with a guided tour of the VCCS Geospatial Portal tomorrow!

GTEVCC-Goals (Community College Faculty)

Goal 5
• Ensure project participants represent diversity in gender and ethnicity.

GTEVCC High-School Teacher Workshop Goal

• Raise the level of GST knowledge and skills among high school teachers (CTE, science, computer) from service region of partnering colleges
• Increase integration of GST into the classroom

Activities
• Conduct one summer workshop for 15 teachers from each service region (3 day + 1 day followup)
  – VWCC and TCC (2010)
  – JTCC (2011)
Understanding Industry Needs

The “Geospatial State of the State!”

- Virginia supports the 3rd largest geospatial industry in the U.S. (behind California, & Colorado)
- Virginia’s geospatial industry often hires geospatial technicians from outside the state!
- We want to make sure that the students are being provided with the skills that are most required by Virginia’s industry.
- We’ll have guest speakers throughout the week that will discuss business and industry needs, and geospatial career opportunities!

Virginia Geospatial DACUM

- Back in 2007, we assessed GIS technician level skills required by VA employers
- Interviewed ~25 industry representatives
- Compared the response to a DACUM that was previously conducted in San Diego Mesa, CA
- Tweaked the CA DACUM to better reflect GIS skillsets for entry level technicians in VA
- This DACUM is the foundation for the content in our workshop (it is in your notebook)
More about DACUM’s

- Ann Johnson, from the National GeoTech Center will be on hand later this week to discuss more extensive (and recent) DACUM research and work!
- The good news, is that the more recent DACUM assessment closely parallels Virginia’s technician level DACUM.
- You’ll hear all about this later in the week!