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GeoTech Center to Sponsor National Geospatial Educator's Summit in May 2012



David DiBiase

The GeoTech Center is sponsoring a gathering of 50 of the nation's top geospatial educators from secondary schools, two-year colleges and four-year universities on the campus of Georgia Institute of Technology in Atlanta to set the national agenda for geospatial education for the next four years. The summit will feature David DiBiase, the newly appointed Esri education program manager, as keynote speaker to open the event. The 2.5-day event begins Monday, May 21st with a day-long series of engaging workshops where participants will break into small groups to work on issues facing geospatial education: barriers to articulation, sustaining enrollment, attracting new learners and expanding GIS education across the curriculum. On Tuesday, May 22nd, the summit continues with presentations by the leaders of the Monday small group breakout sessions as educational leaders seek solutions to the challenges previously identified. The summit concludes Wednesday, May 23rd with a wrap-up presentation. The entire event will be webcast live and is free for anyone to view. Check the <http://geotechcenter.org> website for an update on the webcast in April 2012. ■

What GIS Students Need to Know | by Phillip Davis · GeoTech Center



Model Course Website

Did you ever want to know what knowledge your graduates should possess before entering the geospatial workforce? We now have the answer! In our previous newsletter (July 2011), we first introduced our GTCM Model Course Project in which we described our efforts to take the Department of Labor's new Geospatial Technology Competency Model (GTCM) and actually turn it into a curriculum. I am proud to report that after three intensive workshops around the nation (Louisville, San Diego and Denver), involving nearly 50 educators from both two- and four-year colleges, we have our first four courses complete and ready to use. These four "model"

course packs are the collaborative work of these 50 educators and represent the consensus opinion of the group. These courses represent the collective effort of our 10 subject matter expert lead developers and 40 geospatial educators from leading programs around the U.S. at the two-year and four-year level. They follow the Department of Labor's GTCM, which was developed by 12 leading geospatial industry experts, such as Jan Van Sickle, under

guidance from a DOL facilitator. These courses represent our best interpretation of the GTCM in terms of useful curriculum material for use by educators and trainers in the U.S. These first four courses are each a part of the Model Certificate program currently in development. By August 2012, we expect the complete certificate program of 6-8 courses to be finalized. The first four courses include: a) Spatial Awareness and Literacy, b) Introduction to Geospatial Technology, c) Spatial Analysis, and d) Data Acquisition and Management. We are planning to develop two more courses—Remote Sensing and Cartography - beginning in March 2012, with a May 2012 publication date. Two final courses—Programming and Capstone Internship - will be complete by July 2012 and the entire certificate program will be finalized by September 2012. The GeoTech Center has already received more than 100 requests for the course material from countries around the globe, and as far away as Australia. Anyone interested in examining the material can simply visit the website: <http://moodle.delmar.edu> and browse the course outlines. For a more detailed examination, users can request a free account: <http://www.geotechcenter.org/GTCM/Model-Courses>. To view an archived webinar presentation on the GTCM Model Course Project, visit the Directions Magazine website: <http://www.directionsmag.com/webinars/archive/>. ■

2011 Summer GIS Teacher Workshop Report (Southern California Region)

Collaborative efforts between SDSU and Southwestern College

Authors: Ming Tsou (San Diego State University) and Ken Yanow (Southwestern College)

With the collaborative efforts of San Diego State University and Southwestern College, the 2011 National GeoTech Center Geospatial Technology Summer Workshop was held on July 18-20. The workshop was hosted at the Spatial Analysis Laboratory (SAL), San Diego State University. Professor Ming-Hsiang Tsou (SDSU) and Professor Ken Yanow (Southwestern College) co-organized the three-day workshop. Twenty-two participants (9 high school teachers, 12 community college instructors, and one Southwestern Community College student) attended. This workshop introduced advanced geospatial technology (GIS,

remote sensing, GPS and cartography) and customizable geospatial learning modules for participants' classes and students, as well as textual materials (Figure 1).

The major instructional activities were coordinated by two excellent instructors: Anita Palmer and Roger Palmer from GISetc.

The National GeoTech Center (NGTC), in partnership with Southwestern College and San Diego State University, will host the 4th annual NGTC Geospatial Technology Summer Workshop in 2012. The workshop, designed for high school and community college

faculty who teach geospatial technology, will provide additional training in areas such as geographic information systems (GIS), remote sensing, global positioning systems (GPS) and cartography.

Workshop participants will receive: 1) a stipend of \$850 (upon completion of the workshop and the submission of a geospatial education plan); 2) curricular materials such as customizable learning modules and textual materials; 3) free registration to the annual Esri Education User Conference held from July 21-24, 2012 in San Diego, CA (a \$150 value). The 2012 NGTC workshop will be held on the campus of SDSU on July 18, 19 and 20 (9 am - 4 pm each day).

In order to register for this workshop, you must be a high school or community college instructor with (at minimum) an introductory knowledge of GIS. In addition, your institution must offer a geospatial class or must be in the process of creating a geospatial class. The workshop will be limited to 20 participants who will be selected by the workshop committee members. For additional information, including an application to attend the workshop, please contact Professor Ken Yanow (kyanow@swccd.edu) or Dr. Ming Tsou (mtsou@mail.sdsu.edu). ■



Figure 1.
The 2011 GIS summer workshop at San Diego State University (July 18-20)



GeoTech Promotes Free and Open Source GIS

The Center took a big step forward in promoting the growing Free and Open Source for GIS (FOSS4G) movement this fall with the release of its new Introduction to FOSS4G course pack which contains a complete set of class lectures and lab materials on its new Model Course Server (<http://moodle.delmar.edu>). The material, developed by Kurt Menke—GISP, is currently being used at Central New Mexico Community College to teach an Introduction to FOSS4G course by Menke. He states there is an increasing demand for FOSS4G in the area's employers and government agencies as they seek low-cost solutions in an era of shrinking technology budgets. The Center sponsored a FOSS4G workshop at the recent FOSS4G 2011 Conference in Denver, where 25 participants used that same course material. The workshop was such a success that the Center received a request to repeat it at the upcoming AAG meeting in New York City this February 2012. Menke will be leading the new workshop for AAG using his course material, which is free and available to educators who register on the website. ■



Bringing GIS Application Software to Your Students Anywhere, Anytime

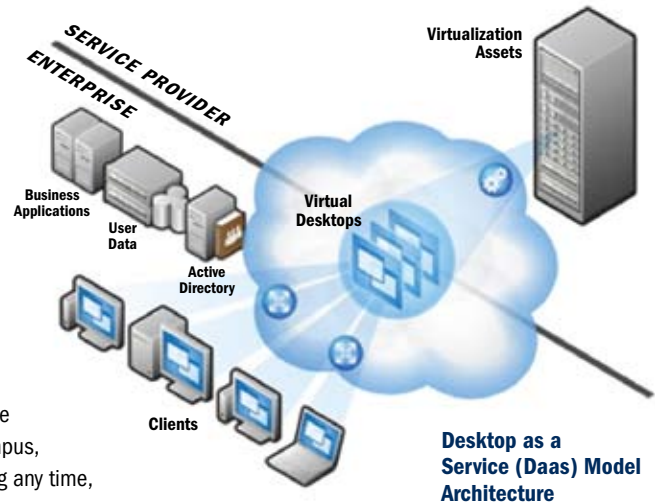
Author: Phillip Davis · GeoTech Center

One of the biggest challenges to building and sustaining any academic geospatial technology program is delivering the complex and expensive application software to your learners. With today's increasingly non-traditional student population—part-time, commuter, working adult—the very act of connecting learners with lab time is getting increasingly difficult. Add to the mix the limited technical support colleges can provide their faculty members and you realize the challenge facing the geospatial educator. In the fall of 2011, the GeoTech Center began a partnership with a third-party commercial IT infrastructure provider, Deskstone, Inc., to provide several partner colleges with “Desktop as a Service” (DaaS) access to our GIS and remote sensing software. Using Deskstone, the colleges are able to provide their learners and faculty with access to geospatial application software, as well as requisite Office Suite applications and data, from their desktop or laptop computer, using nothing more than a browser and Internet connection.

For example, Edgecombe Community College in rural Tarboro, North Carolina has adopted the DaaS model wholeheartedly. Rodney Jackson, director of Emerging Technologies at Edgecombe, has contracted to host its entire suite of information technology applications and data online. Edgecombe is challenged to provide access for learners in rural North Carolina and the DaaS model provided by Deskstone allows the college to provide that access at a cost-effective price.

Edgecombe is leveraging Deskstone's complete cloud computing infrastructure and will not own or operate the hardware used to provide its learners with access to Microsoft Office and Esri ArcGIS software. For a set annual fee per desktop, Deskstone will provide 24x7x365 access to the entire suite of Edgecombe's IT applications, provide technical support, and host both data and software. Edgecombe learners will be able to access their applications on campus, at home, at work or on the road—learning any time, any place. By leveraging Deskstone's infrastructure, Edgecombe is able to scale up as its enrollments grow, or shrink, as needed, without the expense of hiring or firing IT staff. Readers interested in contacting Jackson about his experience can reach him: jacksonr@edgecombe.edu.

Del Mar College in the rural South Texas city of Corpus Christi is using a slightly different model whereby its physical server is hosted in Deskstone's data center. Deskstone provides backup services and remote access, while Del Mar provides its own GIS server administration for the remote server. As Del Mar College increases its number of hybrid and online IT and GIS courses, it can provide 24x7x365 access to application software to learners, both on campus and off. The college chose this solution due to barriers it



had experienced in attempting to host its own server: a) inadequate ISP bandwidth to the campus; b) an ever-challenging loss of competent IT technicians capable of configuring and administering remote access to advanced virtualization software. With a hybrid solution—Del Mar's own server and Deskstone's hosting—the college is able to offer its learners speedy access to its ArcGIS 10 server software as well as adequate storage space for massive data files. The cost per user desktop is less than the self-hosted solution and the reliability is expected to be better. The college will start using this new service beginning in January 2012. Contact Phillip Davis for more information at: pdavis@delmar.edu. ■

Incorporating the National Geospatial Skills Competition into Your Curriculum

Author: Amy Ballard · Central New Mexico Community College

In 2010 the GeoTech Center launched the first annual National Geospatial Skills Competition to provide a forum for students enrolled in geospatial courses or programs to showcase their grasp of theory fundamentals and their talents in executing and presenting a geospatial analysis. Last year 75 students representing over 20 community colleges across the country applied to compete. This year 30 applicants have already applied, with plenty of time left for students to apply and compete.

Students compete in an online exam, the score of which is translated to a point system. Students who pass with a score of 85% or better receive a certificate acknowledging their accomplishment. The second phase requires students to execute and present a software-based geospatial project. The top six semi-finalists, as selected by a large panel of GIS certified judges, compete at the Esri Educational User Conference, where an audience of GIS professionals will vote for the top three finalists.

Convincing students to compete can be a challenge, but including the exam and project as part of your regular curriculum can help facilitate student participation. The exam is based on the Department of Labor's Geospatial Technology Competency Model (GTCM). As an instructor, implementing external measures as part of your student assessment is a challenge. Using the competition exam as part of your curriculum can help you “kill two birds with one stone.” Your students take a professionally vetted exam, based on nationally recognized technical competencies. You, as the instructor, can find out how many of your students pass the exam and at what level, though results on individual exam questions are not shared.

The project can also be daunting for some students. However, many geospatial courses include an individual project as part of the curriculum. Students are encouraged to adapt an existing class project for the competition and may only need to create a few graphics and record a narration for their project submission.

Also, students can view finalists' projects from the first competition on the GeoTech Center website, which may help inspire them to create their own project. And of course you, as the instructor, can have a huge influence on your students' decision to compete. Your students' success in the competition will be a win-win situation for you, your program and your students.

This year's competition was announced in July. The exam is online and available now for students until March 15, 2012. Projects must be submitted via YouTube by April 1. Semi-finalists will be announced May 15th and will present at the Esri Conference on July 22, where winners will be announced. Visit the GeoTech Center website and follow the competition link for more information and for the student application. ■

For more information, please contact Amy Ballard (aballard1@cnm.edu) or GeoTech Center Staff.

In 2009 the field of remote sensing was formally recognized by the U.S. Department of Labor Employment and Training Administration (DOLETA). This came about with its creation of two new standard occupational classification codes for “Remote Sensing Technicians” (19-4099.03) and “Remote Sensing Scientists and Technologists” (19-2099.01). These positions, described on the departments O*NET website, are expected to grow at rates of between 11 and 13 percent by 2018. The creation and definition of these job titles have helped to clarify what remote sensing workers actually do. Community colleges, focused on preparing students for work in this field, can now develop and update their remote sensing curriculum to target actual job tasks. To guide them in this effort the National Geospatial Technology (GeoTech) Center is creating a model course outline based upon this new industry workforce criterion.

Job Analysis: In 2010 the GeoTech Center completed an initial review and validation of similar DOLETA workforce information for “GIS technician,” another new geospatial job title. This process involved using a meta-analytic technique to consolidate multiple DACUM job analyses from across the country into a single national assessment. It generated a detailed list of job tasks which were identified, validated and ranked entirely by working GIS technicians and related industry practitioners. The report also identified the knowledge, skills and abilities that these workers considered important for this job. This assessment was used to expand and authenticate the DOLETA’s list of GIS technician job tasks. It also served as a basis for GeoTech’s model course outlines, which were designed to assist the nation’s 164 community college GIS certificate programs in preparing students for work as GIS technicians. The GeoTech Center is now using a similar approach, along with a national industry survey, to help further define and validate the job of “remote sensing technician.” Once again the goal is to help community colleges update and develop their remote sensing curriculum to better address current industry workforce needs.

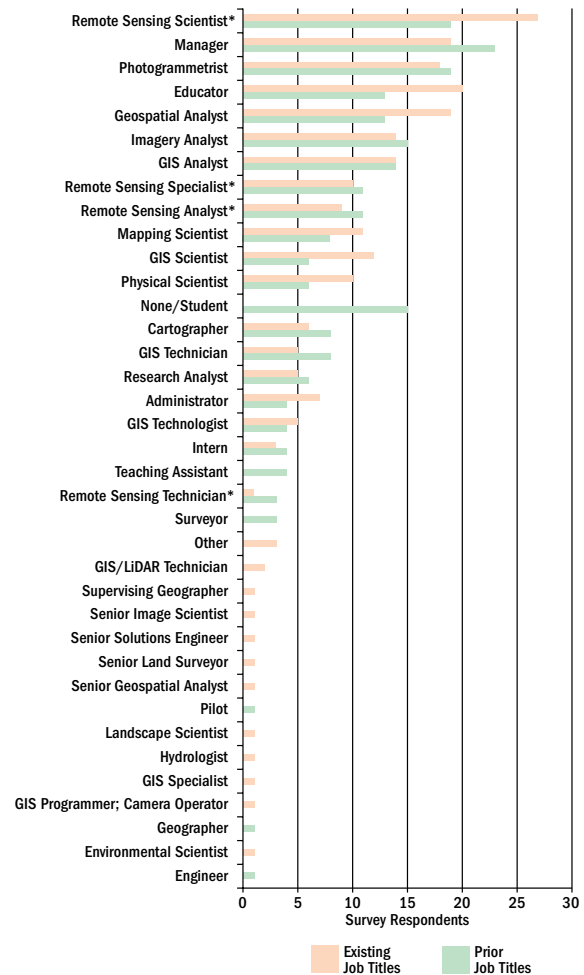
Employment Survey: In addition to a national job analysis, the GeoTech Center conducted a national employment survey of remote sensing professionals. This was carried out during the summer of 2011 with help from the American Society of Photogrammetry and Remote Sensing (ASPRS), a scientific association serving more than 7,000 professionals worldwide. The survey was distributed by email to the ASPRS’ U.S. membership roster and received 114 responses. Although its results are limited by its relatively small sample size and its failure to include part-time and ancillary workers who are unlikely to be members of ASPRS, it still provides valuable insight into the remote sensing workforce. The GeoTech Center will use this information to help identify areas in which community colleges can effectively support worker training in this field.

Figure 1 shows that survey respondents had a variety of existing and prior job titles or positions. They included photogrammetrists, geospatial scientists, analysts, managers, specialists, technologists, technicians and many others. While the most common job title was “remote sensing scientist,” “remote sensing technicians” were much less evident. This may, of course, be due to their lack of participation in ASPRS. However, it also suggests that many entry level workers probably have a different job title. This is evident from the fact that while only three respondents had previously worked as remote sensing technicians, 15 had no prior work experience and 12 had worked as GIS technicians or technologists. The variety of positions and job titles listed here suggests that there are multiple ways of advancing within this industry. In addition, no clear starting point for entry-level workers was evident, although the creation of the “remote sensing technician” position by the DOLETA appears to attempt to address this issue.

Remote sensing industry professionals are highly educated, as shown in Figure 2. Virtually everyone who responded to the survey had earned at least a bachelor’s

degree, almost three-quarters had a master’s degree and one-third had a doctoral degree. In a pattern similar to their job titles, the subject areas of their degrees were also quite varied. Figure 3 indicates that geography was the most popular degree, followed by geology, environmental science, GIS, photogrammetry and remote sensing, along with a variety of others.

Figure 1: Existing and Prior Job Titles or Positions



The median age of survey respondents was between 41 and 50, with 14 percent being over the age of 60. This suggests that many in this industry are nearing retirement and although they may be in senior professional positions, their departures will no doubt lead to promotions which will create additional job openings for those further down the employment ladder.

Figure 2: Highest Degree Earned

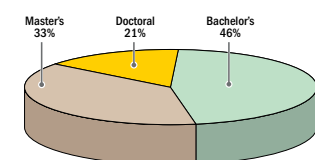
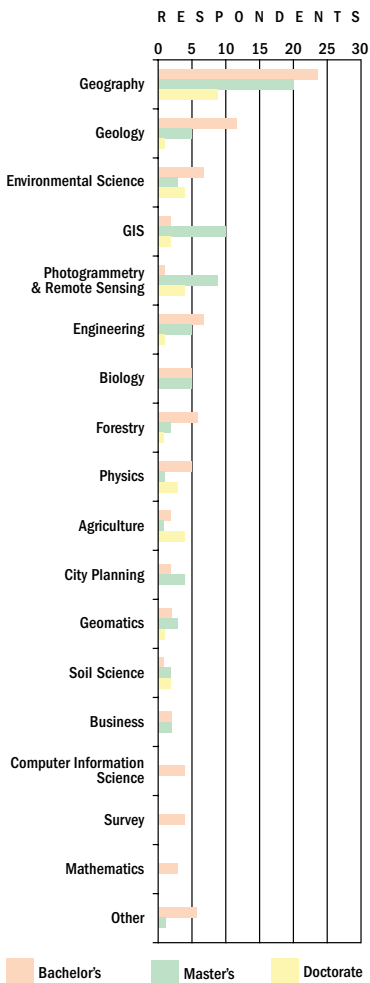


Figure 3: Subject Area of Degrees



While a university education is clearly important for these workers, Figure 4 suggests that much of their actual remote sensing training came from a combination of on-the-job, self-taught, college and vendor offerings. In addition, despite the availability of multiple industry certifications through ASPRS and other organizations, almost 60 percent of respondents had not yet earned a certificate. This is evidence that educational and training opportunities still exist within this industry and that universities are not providing workers with all the necessary skills and competencies required to work in this field.

Over three-quarters of the survey respondents work for large public or private sector organizations with over 25 employees, and half of these organizations employ at least five full-time remote sensing workers. They are primarily in the government, education, mapping, charting, defense and intelligence sectors (Figure 5). This concentration of workers should help to facilitate cooperation between colleges and industry in worker training. It could take the form of internships, participation in industry advisory committees or formal training agreements. Such cooperation holds the potential for creating a win-win situation in which both parties are able to focus on what they do best.

Figure 6 shows the U.S. distribution of survey respondents, with many concentrated in California, Virginia, Washington and Florida. This coincides with the location of some large industry employers, including the National Geospatial-Intelligence Agency and the U.S. Army Corps of Engineers in Virginia, as well as U.C. Berkeley and NASA Ames in California. Also shown on this map are the locations of the three remote sensing DACUM job analyses used by the GeoTech Center to document jobs in this industry.

Figure 6: Location of Remote Sensing Survey Respondants and DACUM Job Analyses

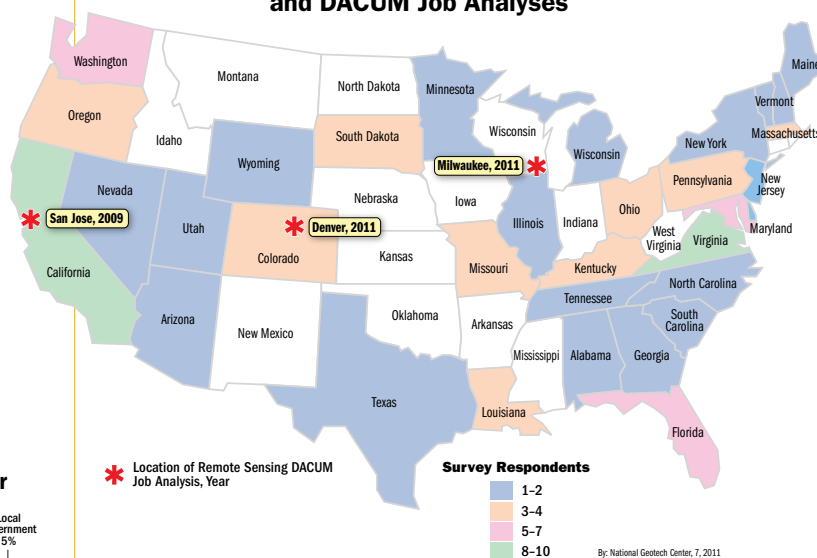


Figure 4: Remote Sensing Training

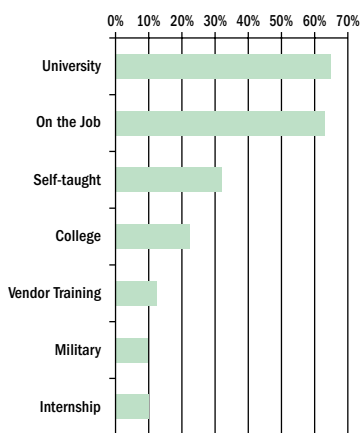
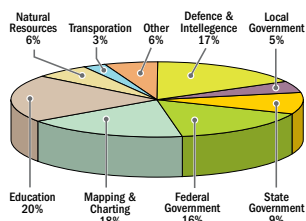


Figure 5: Industry Sector



Conclusion: The creation and definition of new remote sensing job titles by the DOLETA should help to structure a job ladder for this industry and establish “remote sensing technicians” as an entry point for new employees. This is good news for community colleges interested in preparing students for work in this expanding new field. They can now offer classes which will provide students with the necessary technician-level job skills required to function effectively in this position. The GeoTech Center is assisting them by conducting a national remote sensing job analysis to identify a comprehensive list of job tasks and related competencies for remote sensing technicians. This information will then form the basis for a curriculum workshop, scheduled for March 2012 in Sacramento, California. At that time educators from across the country will work together to develop a model course outline which targets the skills and competencies required for this position. It will be made available to colleges to help them develop and offer a remote sensing class which is aligned with current national workforce needs. ■

This is good news for community colleges interested in preparing students for work in this expanding new field.

1 U.S. Department of Labor, Employment and Training Administration (DOLETA), 2009, Occupational Information Network (O*NET) (<http://online.onetcenter.org/find/quick?s=remotesensing>)



Author: John Nelson
Del Mar College

The Coastal Bend of Texas celebrated its 14th Annual GIS Day Event on Wednesday, November 16th, the internationally recognized date for GIS Day. The event was held during “Geography Awareness Week.” This regional event has been co-hosted for many years by the geospatial technology programs from Del Mar College, Texas A&M University in Corpus Christi, and Texas A&M University in Kingsville, with considerable assistance from the GeoTech Center, Texas A&M’s Geographic Information Science Student Organization (GISSO) and the Del Mar College Office for Continuing Education. This year’s event was held at the Del Mar College Center for Economic Development in Corpus Christi, Texas. The event was free and open to the general public. It drew nearly 600 K-12 public and private school students and faculty from 16 campuses. Attendees traveled to the event from across the Coastal Bend area, including Educational Service Center Areas 2 and 3. Members of Nordeim High School traveled over 200 miles round trip to attend. The coordinated event was also visited by higher education students and faculty from across a number of disciplines. The event afforded the participants the opportunity to “Map their Careers with GIS.”

The collaborative and highly informative event delivered technology to K-12 Coastal Bend students during four overlapping two-hour sessions, held between 9:00 AM – 4:00 PM. These sessions included rotating rounds of academic GIS program presentations; informative booth demonstrations by industry, government and NGO GIS professionals; and a series of hands-on outdoor GPS and surveying equipment activities that the participants could view as well as operate themselves – all proving that “GIS Technology is Changing Our World.” The goal of this event was to demonstrate to students how GIS is a part of their everyday lives. More than that, the application of geospatial technology is fast becoming a vital workforce need in the global market place. The objectives for all the participants were to raise geospatial awareness, to benefit from this global GIS Day initiative and to “Celebrate Your World with GIS.” ■

Is it on Your Calendar? Coming in March 2012:

**GTCM
Model
Course
Workshop**



More information will be announced on
www.geotechcenter.org

The Making of a Model Course Outline

Author: Ken Yanow · Southwestern College

Creating a model course outline has proven to be a labor-intensive and meticulous task. But certainly, not boring! At the GeoTech Center, we believe that all of the hard work required to develop relevant, GTCM-aligned course outlines (that can serve as the foundation for geospatial courses and programs), is well worth this effort.

The following method was used to develop GTCM-aligned model course outlines:

Step 1: Determine the relevant GTCM tiers for a particular course. For example, the relevant GTCM tiers for a geospatial “awareness” course were deemed to be GTCM tiers 2, 3 and 4 (“Academic Competencies,” “Workplace Competencies” and “Industry-Wide Technical Competencies—Core Geospatial Abilities and Knowledge,” respectively).

Step 2: Once the appropriate tiers were identified, the components and objectives from each of the tiers were then compiled into an online survey. Faculty experts from across the nation then completed the survey (40 faculty experts participated in this first round of courses), rating each of the components and objectives. Ultimately, faculty experts were determining whether or not a component/objective should be included in the course. The following categories comprised the rating scale: “definitely include,” “should be included,” “include if time permits,” “not applicable to the course.” The survey also included a “level of depth” rating scale. After receiving the completed surveys, the GeoTech Center compiled the results, creating a first-draft model course outline.

Step 3: Faculty participants then met at a face-to-face workshop. The first GeoTech Model Course Outline Development workshop was held in Louisville, KY. In order to facilitate greater faculty discussion, the participants were divided into two relatively small groups. The two courses being modeled were the geospatial “awareness” course, which could ultimately serve as a general education course offering in a variety of areas, and an introductory geospatial technology course, which could serve as a stand-alone technology course, or the first course in a technical program. For the first half of the workshop day, both of the small groups meticulously evaluated, debated and discussed each of the course components and objective ratings for one of the courses. Discussions were, at times, animated and passionate, with faculty experts lobbying for or against a particular component and/or objective. Discussions were also enjoyable and productive. By the end of the half-day, each model course outline had been thoroughly dissected. For the second half of the day, the groups then switched rooms and repeated the process for the other course. At the end of the day, the results from each of the groups for each of the courses were compiled, further discussed and debated, and ultimately finalized.

Step 4: The GeoTech Center then took the final model course outlines and structured them into typical class formats, including a course syllabus (course description, student learning outcomes and textual resources) and a course outline of measureable objectives. These documents were placed on the GeoTech Center website for public reviewing and comment.

The next task is to populate these model course outlines with relevant and vetted learning modules. Ultimately, we want to offer faculty a viable, rich and useable product. It is important to note, as the GTCM changes, so too must the model course outlines. The GeoTech Center will continually vet the model course outlines, assuring their relevance and their alignment with the GTCM. ■



Figure 1. Lake Land College Geospatial Technology Certificate students and instructors (spring 2011)

Lake Land College Community GST Interns Program

Author: Mike Rudibaugh • Lake Land College

Lake Land College (LLC) conducted its initial Community Interns Program for geospatial technology (GST) students in the spring of 2011. This program provided internship experience, which was the culmination of LLC's Geospatial Technology Certificate. The college's GST certificate was redesigned in response to a DACUM conducted in partnership with the GeoTech Center during the fall of 2009 regarding the GIS technician occupation. In addition, the broader and more comprehensive Geospatial Technology Competency Model (GTCM) impacted how LLC better connected its curriculum to workplace competencies. Results indicated that GST certificates/programs needed more real-world work experience linking together concepts, and needed to introduce workplace procedures critical to GIS technician preparation. LLC presented these findings to the college's Geospatial Technology Advisory Board in the winter of 2010.

The board suggested that interns were needed in the region; however, many of the employers indicated a "sharing" of the interns would be very positive. Many employers had limited to minimal history with geospatial technology and were concerned about how to use the interns. This concern led to the idea of the employers sharing interns and then developing better communication between the employers. Many of the potential employers recognized they worked in related industries from utilities, telecommunications, local government, natural resources and economic develop-

ment. They viewed the Community Interns Program as an opportunity to not only experiment using highly skilled technicians, but also to use geospatial technology to better connect rural communities. Indirectly, the board was promoting the use of the Community Interns Programs to develop a local GIS user group to promote the sharing of best practices, technical demonstrations and success stories using geospatial technology.

Using students within the program and selected host employers the college initiated its first GST internships in the summer of 2011. Five employers volunteered to participate by using LLC's first group of geospatial technology interns. The students who participated in the GST program (pictured below) represent the diverse nature of community college students registered in the GST curriculum (Figure 1).

The students came from diverse transfer areas (agriculture, geography, life-science and conservation), but were also occupational and dislocated workers representing non-traditional student populations. Results from the program, which were generated from instructor interviews with employers, appeared quite positive. The students kept an activity log representing each day's work relative to tasks, duties and specific work conducted each day. Using these work logs, which covered a total of 180 hours of work, we could then model exactly how the interns were used on-site with employers. Employers reported that this

process of working with interns helped them to better understand their own organization's current and future staffing challenges. Currently, two of the internship sites are still employing interns on a part-time, paid basis - six months after the internship ended. Findings indicated that the interns were primarily used for data entry, capture, geocoding and QC/QA issues associated with GIS technician entry level jobs.

Lake Land College is scheduled to repeat this process next spring. Specifically, we plan to better track how the GST internship hours conducted by students line up with national benchmarks like the GTCM or GeoTech Meta-DACUM report. Using these resources we hope to elucidate the linkage between academic preparation and applied skills needed to become a GST professional. In addition, we hope employers in rural areas will appreciate the long-term implications of this process. Using the GTCM as a model or benchmark each employer can reference internship hours in producing better-defined job descriptions to address current or future positions within the organization. Simply put, in many organizations in rural America the use, application and impact of geospatial technology are still in an early phase. Employers using geospatial technology in rural areas are simply adding those duties into the existing workforce within the organization. The GST Community Interns Program represented an opportunity for regional employers to model, test and experiment with using new economy workers like the geospatial technologist.

We look forward to working with the GeoTech Center and other community colleges in exploring how best to close the training divide between higher education and the GST industry or related industries leveraging the technology. Potential future discussion on this issue will hopefully address issues associated with model GST internship course descriptions, video series on GST employers in rural areas, and assessments linking internship duties and hours against the GTCM. For any follow-up or additional feedback please address questions to Mike Rudibaugh, Geography-GIS Instructor (Lake Land College), to mrudibau@lakeland.cc.il.us or office phone (217-234-5244). ■

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KNOW?**

Esri Technical Sessions are available on the GeoTech Center website and are free to our partners. All 150 Technical Sessions total a value of \$695! To become a partner with the GeoTech Center please visit www.geotechcenter.org/Partners/Become-A-Partner.



FOR MORE INFORMATION

AND TO REGISTER FOR

THE 2012 COMPETITION


SEE "COMPETITIONS" AT

GEOTECHCENTER.ORG

This competition allows two year college students to demonstrate their expertise in the skills identified in the new Department of Labor Geospatial Technology Competency Model (GTCM).

For more information:
careeronestop.org/competencymodel/pyramid.aspx



 Funded by National Science Foundation Advanced Technological Education program (NSF #0801893). Author's opinions are not necessarily shared by NSF.

COMPETE!

National Geospatial Technology Skills Competition

Empowering Colleges:
Expanding the Geospatial Workforce

Mark the Dates!

February 24-28, 2012

AAG Annual Conference
New York, NY
www.aag.org/cs/events

March 5-9, 2012

SITE Conference
Austin, TX
site.aace.org/conf/

March 19-23, 2012

ASPRS
Sacramento, CA
www.asprs.org

March 23-24, 2012

GTCM Workshop
Sacramento, CA
www.geotechcenter.org/gtcm

May 21-23, 2012

National Geospatial
Educator's Summit
Atlanta, GA
www.geotechcenter.org

June 11-13, 2012

GeoEd
Louisville, KY
www.geotechcenter.org

June 17-22, 2012

T3G
Redlands, CA
edcommunity.esri.com/t3g

July 18-20, 2012

SDSU Summer Workshop
San Diego, CA
kyanow@swccd.edu or
mtsou@mail.sdsu.edu

July 21-24, 2012

Esri EdUC
San Diego, CA
www.esri.com

July 22, 2012

National Geospatial Technology
Skills Competition
San Diego, CA
www.geotechcenter.org/competition

July 22, 2012

Community College Special Interest
Group Meeting (SIG)
www.geotechcenter.org

October 24-26, 2012

ATE PI Conference
Washington, DC
<http://www.aacc.nche.edu>

Date(s) TBD

Virtual GTCM Workshop
Online
www.geotechcenter.org



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