

January 24, 2008

GIS analyst
GIS programmer
GIS technician

Geospatial Technology Contest

SkillsUSA instituted a college/postsecondary-only contest in Geospatial Technology in 2005. The third Geospatial contest will be held at the 2008 SkillsUSA Championships in downtown Kansas City, Missouri June 23-June 27, 2008. College/postsecondary students studying GIS, RS and GPS from across the country are invited to compete.

Who qualifies? All registered College or University GIS students.

How do I sign up for this contest? **First**, you must register for the contest on line @ www.digitalquest.com/SkillsUSA08

Second, you will need to be a member of SkillsUSA. Complete and submit the SkillsUSA membership form included. Also include a check for the cost of membership - between \$ 16.00 and \$22.50 depending on your state. To find your state's membership fee, go online to <http://www.skillsusa.org/join/statedues.shtml>. Refer any questions to kperrino@skillsusa.org.

We will verify the information on your registration and submit your registration to SkillsUSA, so be quick and be complete!!!!

The first 50 students that we verify are College or University students registered in programs that teach GIS will get invitations to the contest.

What will I have to do? Show off your Geospatial Skills!!!

The qualified contestants will receive the STARS certification kits, worth \$500 including a 60-day license of ESRI ArcView 9.2 software. We will send you a formal invitation to the contest and give you a password protected ftp site. There you will download this year's STARS Geospatial Project. You will need to prepare this project in advance and bring it with you to the contest.

In Kansas City, the contestants will orally defend their GIS project, as well as take a written technical knowledge test and a hands-on test of Geospatial Technology skills. So bring your computers!!!!!!

Contest orientation followed by a written technical test will begin at 2:00PM on Monday, June 23. Each contestant will turn in his or her STARS GIS project at that time. On Tuesday morning, from 7:30 a.m. to noon, 25 students will offer oral defenses and demonstrations of the completed project they brought to the national contest, while the other 25 students participate in a hands-on, project based test of their Geospatial skills. From 12:30 p.m. to 5:00 p.m., the two groups will switch. All contestants will attend the Opening Ceremony Tuesday evening of the National Leadership and Skills Conference, and then attend a debriefing and awards ceremony for the contest on Wednesday morning. Contestants will be free to depart for home after 12 noon on Wednesday, June 25th.

Those contestants at the Kansas City competition whose aggregate score reaches at least 75 percentile will be awarded STARS Certification. STARS (Spatial Technology and Remote Sensing) is a fully developed “turn-key” Certification program for high schools, colleges and universities as well as career professionals looking to integrate geospatial tools into their on-the-job skill set.

The gold medalist will receive a complete ArcGIS ArcView and four Extensions software package worth \$10,000 and a \$1,000 cash scholarship to reimburse travel expenses to Kansas City. Prizes for the silver and the bronze medalist include the ArcGIS ArcView software package, and \$500 and \$250 scholarship, respectively. Prizes and awards for other contestants are still in development. Determination of winners will be the sole responsibility of the judges and all decisions will be final. We reserve the right to limit the number of awards given.

Contestants are responsible for all travel and lodging costs and are required to pay a registration fee of \$115 to attend the conference.

The “GIS Group” that is serving as the technical committee presently consists of

- Digital Quest, Inc. (Eddie Hanebuth, Austin Smith)
- Environmental Systems Research Institute (ESRI: Esther Worker, Charlie Fitzpatrick & Ann Johnson)
- The Institute for Advanced Education in Geospatial Sciences (Dr. Pamela B. Lawhead)
- The Mississippi Enterprise for Technology (B. Greg Hinekebein)

We continue to seek: (a) expanded representation on the Geospatial Technology national technical committee; (b) judges; (c) contest equipment; and (d) prizes for place winners or for all the contest’s Kansas City participants.

What did last years test and competition look like?

The 2007 Skills USA exam is posted on the ESRI ArcLessons web site (www.esri.com/arclessons), search titles for SkillsUSA to find the exam.

GEOSPATIAL TECHNOLOGY

Purpose

To evaluate each contestant's preparation for employment and to recognize outstanding students for excellence and professionalism in the field of geospatial technology

First, refer to General Regulations.

Clothing Requirements

For men: Official SkillsUSA white polo shirt with black dress slacks, black socks and black leather shoes.

For women: Official SkillsUSA white polo shirt with black dress slacks or skirt, black socks or black or clear seamless hose and black leather shoes.

Eligibility

Open to all post secondary students in the US registered in programs that include geospatial technology as a discipline or as an occupational objective.

Equipment and Materials

1. Supplied by the Technical Committee:
 - a. Geospatial project documentation to outline project activities
 - b. Project data
 - c. Metadata pertaining to project data
2. Supplied by the contestant:
 - a. Computer system that meets minimum specifications for operating computer software specified below and includes a CD-ROM drive and 1 GB hard disk storage space, monitor, keyboard and mouse
 - b. Computer software
 - i. ArcGIS v. 8.x or 9.x suite
 - ii. Microsoft Office suite including Microsoft Word, Microsoft Excel and Microsoft PowerPoint
3. Misc. supplies (optional)
 - a. Ballpoint pens or sharpened pencils
 - b. Blank notebook paper

Scope of the Contest

Contestants will be given a community-based problem to be solved or addressed using industry-standard GIS software tools. Contestants entered in the geospatial technology contest should have instruction in the following areas:

1. Geospatial Project Management.
2. Geospatial technology terminology and concepts
3. Navigation of ArcGIS ArcView software suite including ArcGIS ArcView, Spatial Analysis, 3D Analysis and Network Analysis
4. Displaying vector and raster data
5. Navigation of Leica Geo Systems Image Analysis software.
6. Managing & editing data display properties including manipulating map coordinate systems and projections, editing feature symbology, labeling features
7. Communicating GIS project findings through the creation of charts, reports and map layouts with necessary map elements
8. Managing geospatial data including using metadata, joining data tables, editing data tables, calculating fields in tables, exporting data and using techniques to incorporate non-spatial data in a GIS project, displaying data statistics, grouping data, creating new data layers, and adding features to new data layers.
9. Performing geospatial analysis including performing attribute- and location-based queries, buffering features, geocoding tabular data, merging data, and clipping data.
10. Exporting map layouts as image files

Students will complete a written examination and then complete a community-based project dealing with practical application of geospatial skills. Upon completion of the project, students will summarize project findings into a written report (including map layout images) and a brief presentation slideshow using Microsoft Office tools.

Item	Task	Skill	Possible Points	Contestant Number
1	Interpretation of the written geospatial task in an application specific, community-based project scenario	<ul style="list-style-type: none"> • Concept comprehension • Geospatial project management 	50	
2	Displaying geospatial data (image/raster and feature/vector)	<ul style="list-style-type: none"> Concept comprehension Software navigation Data management 	35	
3	Effective display of spatial data in maps	Data management	35	
4	Effective use of non-spatial data in maps	<ul style="list-style-type: none"> Data management Geospatial analysis 	35	
5	Demonstration of editing necessary data tables and	Data Management	35	

	features			
6	Application of geospatial analysis techniques to solve community-based issue(s)/scenario(s)	Geospatial analysis	50	
7	Creation of map layouts relevant to community-based issue(s)/scenario(s)	Geospatial analysis Communications	50	
8	Creation of other elements such as charts and reports necessary for effective communication of project	Geospatial analysis Communications	30	
9	Comprehension of application of geospatial skills to relevant community problems	Concept comprehension Geospatial analysis Communications Geospatial project management	50	
10	Effectiveness of written report	Concept comprehension Geospatial project management	50	
11	Effectiveness of presentation slide show	Concept comprehension Geospatial project management	50	
12	Overall project effectiveness • Concept comprehension	Geospatial project management	100	
13	Written examination		100	
		Total:	670	