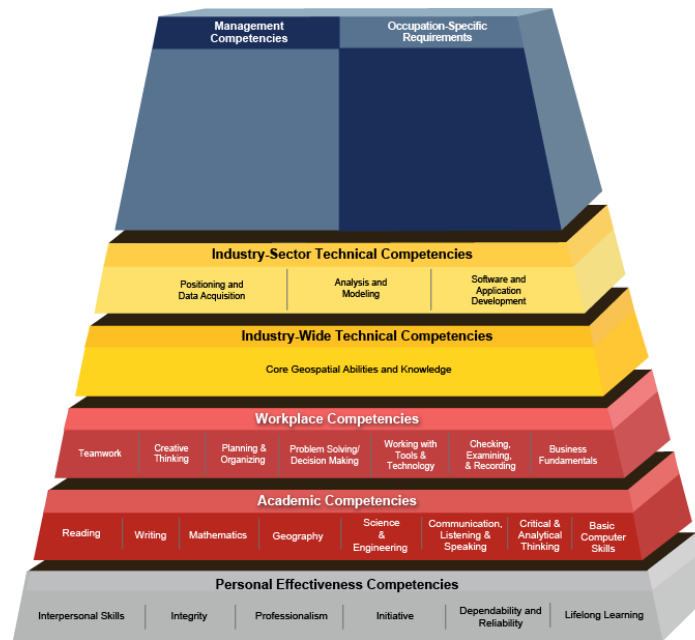


2011-2012 Annual Competition

Rules and Important Dates for National Geospatial Technology Skills Competition

Welcome to the first annual competition! We are excited to offer this opportunity exclusively to students at two year community and technical colleges enrolled in a geospatial technology program in the U.S. This competition allows our two year college learners to demonstrate their expertise in the skills identified in the new Department of Labor “Geospatial Technology Competency Model” or “GTCM”. The GTCM is a comprehensive document, release in June 2010, which precisely defines for the first time, the entire Geospatial Technology Industry and its sectors. You can read about the GTCM on the DOL [website](#).

Figure 1: Geospatial Technology Competency Model



Eligibility:

Open to currently enrolled students (18 years or older) from two-year (lower division) community and technical college programs that offer courses, certificate or degree programs focused on geospatial technology in the U.S.

IMPORTANT DATES

Competition Announced: July 10, 2011

Application to Take Exam Available: September 1, 2011

Round One Exam Available: September 1, 2011—March 1, 2011

Round Two Presentations must be uploaded to YouTube no later than: April 1, 2012

Six Semi-finalists Announced: May 15, 2012

Invitations to EdUC by Semi-finalist accepted: June 1, 2012

Conference Attendance by Semi-finalists at EdUC in San Diego: July 21—24, 2012

Presentation at EdUC: July 22, 2012 (3:30-4:45pm)

Winners Announced: July 22, 2012 (6pm)

2011-2012 Annual Competition

Overview:

The intent of this competition is to showcase lower-division student technical skills related to the use of geospatial technology. The contest will test student aptitude in geospatial science theory and software applications, and will draw content from the recently adopted Geospatial Technology Competency Model (GTCM) to insure that the most relevant skills and knowledge are being assessed. The contest will consist of an online examination and software project combined with communication and presentation skills, both oral and written. The top six semi-finalists presentations will be selected by judges from the geospatial workforce. The six students will be invited to the Esri Education Users Conference, where they will give a presentation about their project. At the EdUC, the audience will select the top 3 finalists by secret ballot and a first, second, and third place contestants will be announced during the Community College Special Interest Group (SIG) meeting on Sunday.

Contest Format: The contest will consist of **Three Rounds.**

Round One

The first round will begin with the student submitting the online Application. The Center will email the student a login to take the online exam. The exam is made up of 50 Questions based on the GTCM that must be completed within one hour. All contestants who pass the online exam with a score of 85% or better will receive a Certificate of Recognition. Those passing the exam with a score of 70% or greater will be asked to participate in the Second Round. Students may attempt the exam twice. Exam **must** be taken by April 15.

Round Two

In the Second Round students will create a software-based project including the use of geospatial technology and analysis and submit a 3 to 5 minute (less than 6 minute) video to YouTube. The YouTube video must be submitted (uploaded) no later than midnight, [April 1, 2012](#) Eastern Time.

The presentation Video on YouTube will be judged by a panel of judges selected from the geospatial industry and represent a cross-section of geospatial professionals. Round two will be completed online with contestants and judges working through a website. The judges will select their top six semi-finalist presentations and announcement will be made on [June 1, 2012](#). The top six semi-finalists (ties will be broken by round one scores) will be invited to participate in Round 3 at the Esri Education User's Conference. Invitations must be acknowledged and accepted or rejected within 7 days (no later than [June 7, 2012](#)). All travel expenses will be covered through a \$2,000 travel stipend for those competitors who come to San Diego and present their projects.

Round Three

The six finalists from Round Two will be sponsored by the GeoTech Center and invited to attend and present their work at the Esri Education Conference in San Diego, California during a special session where the audience will judge the presentations. If any of the top 6

2011-2012 Annual Competition

finalists are unable to attend the EdUC, the next highest placed competitor will be asked until all 6 slots have been filled. The 1st, 2nd, and 3rd place winner for the overall national contest will be chosen by the audience by secret ballot. Winners will be announced during the Community College Special Interest Group meeting on Sunday afternoon of the EdUC shortly after the round three conclude.

Online Exam

The online examination will consist of 50 randomized questions related to geospatial theory. Students must take the exam in one hour or less. Exam questions will come from Tiers 4 and 5 of the Department of Labor [Geospatial Technology Competency Model](#). Including Industry Wide Technical Competencies and Industry Sector Technical Competencies (Figure 1). Passing this exam with a score of 70% or better will earn the right to continue to the next round of the competition which will be to create a project (see details below).

Student Project Details

The project component of the National Geospatial Skills Competition will consist of a GIS-based project on one of the topic options listed below with the top six students presenting their project as an oral presentation at the EdUC. The project will include a GIS software-based analysis and will be judged on the criteria outlined below in “Judging Criteria”. Round Two submissions will be a 3 to 5 minute (less than 6 minutes) online presentation using YouTube. The presentation should fully explicate the goal of the project, the layers created or obtained to produce the project, and any analysis performed to do the project (see [Judging Criteria below](#)). Preference will be given to projects that include *analysis* as part of the project. This could include network analysis, proximity analysis, 3D data presentation, or any number of other approaches. The presentations will be judged by a panel of geospatial professionals using the criteria outlined below.

Presentation Topics

The presentation should focus on a specific issue within one of the following broad topic areas using geospatial data and technology:

- Strategies for environmental sustainability
- Campus mapping
- Community demographics
- Natural Disasters
- Animal habitat
- Urban forests
- Energy

Judging Criteria

Area 1: Project Organization

In order to receive all points in this area, the project must include the following sections.

2011-2012 Annual Competition

1a: Introduction

- The project goals and objectives are clearly stated
- Project has a title
- Project shareholders are identified
- Project's geographic area is clearly defined

1b: Data Preparation

- Source of data layers is clearly explained; were they created vs. downloaded
- Challenges related to data preparation are presented
- Discussion of types of data is included (formats, coordinate systems, etc.)
- Types of analysis clearly discussed, what types and why?
- Challenges encountered during analysis explained
- Any additional types of analysis that could be used in the future
- Summarize your project

Area 2: Overall Project Quality

Points awarded in this area are related to the following:

2a: Application of geospatial technology

- Project uses at least 2 technologies or applications related to geospatial, e.g., GIS, GPS, remote sensing, mobile GIS, web-based GIS, etc.
- Presentation quality
 - Presentation is clear
 - Presentation is well-organized
 - Presentation is within time limit
 - Presentation makes use of cartographic output
 - Presentation makes use of tables or other graphs
- All data must be used with permission and attribution as to its source.