

Fourth Annual
Esri T3G Institute
Teachers Teaching Teachers GIS
June 17-22, 2012
Esri headquarters, Redlands, California



Overview

Description

The Esri T3G Institute helps participants to get more involved in the use of GIS within education, especially in their own institution, local community, and professional network. Unlike other events, which focus on “learning how to do more with GIS,” the Esri T3G Institute focuses on “helping other educators use GIS effectively.”

By the end of the Institute, you will be able to demonstrate how to teach with GIS using a number of engaging instructional strategies and up-to-date GIS tools, and confidently plan and conduct GIS training events for educators. Moreover, you will gain a vibrant community of peers with whom to exchange ideas and support.

Instructors

Kathryn Keranen, GIS education consultant, Great Falls, Virginia

Lyn Malone, World Views: Spatial Technologies for Education, Barrington, Rhode Island

Anita Palmer and **Roger Palmer**, GIS ETC, Dallas, Texas

Laura Bowden, Esri Educational Services K16 Program Manager

Charlie Fitzpatrick, Esri Education Team Schools Manager

Joseph Kerski, Esri Education Team Curriculum Manager

Who should apply

The Institute is designed for educators from various settings who have demonstrated experience in three areas: using GIS, teaching with computers, and providing professional development for educators.

Applicants should have a strong commitment to

- training other educators in the use of GIS in instruction
- developing curricular materials that help educators and students make effective use of GIS
- spreading the reasons for engaging GIS in schools to administrators and policy makers

Note: Qualified applicants from the USA will receive priority.

Goals

After completing this Institute, you will be able to

- Use a number of effective strategies to engage Esri GIS technology into an instructional program
- Help other educators understand how to engage GIS effectively
- Apply essential GIS skills and knowledge beyond the basics
- Better influence local policy about engaging GIS within education
- Participate in a supportive community of active, innovative GIS educators

Prerequisites

Institute participants must have a number of skills already in place before applying to the institute. These include solid fundamental GIS software skills*, strong understanding of spatial data and concepts, good computer skills, experience in teaching a grade 5-12 or college classroom using computers, experience teaching adults, and good problem solving skills.

Fluency in the operation of a recent Windows operating system is required. (All institute hands-on activities will occur on a Windows platform.) Familiarity with Macintosh systems, in addition to Windows, is a plus for any trainer but is not required for this institute.

*A good way to evaluate whether you have these skills is to review the online course descriptions and tables of contents for these Esri training courses: [ArcGIS Desktop I: Getting Started with GIS](#) (or [Getting Started with GIS](#)), and [ArcGIS Desktop II: Tools and Functionality](#) (or [Learning ArcGIS Desktop](#)). You may also review the Esri Education Community blog (<http://edcommunity.esri.com/blog>) posts related to Web-based GIS.

Program

During the Institute, June 17-22, 2012

A schedule for the week will be given to applicants when invited to participate in the institute. **Institute activities will run from 5:00 pm on Sunday, June 17, to 7:00 pm on Friday, June 22, 2012.** Participants can expect a wide variety of activities and topics, such as:

- Individual and group work, lessons, discussions, and demonstrations
- Experiencing a number of different presentation strategies for teaching with GIS
- Working with several forms of software such as desktop GIS and Web-based GIS
- Working with a variety of data structures such as geodatabases, shapefiles, images, and online map services
- Activities touching on a variety of disciplines
- Discussing the needs of different audiences and settings such as middle school students in the classroom, high school students doing service learning, or community college faculty interested in technology integration
- Discussing best practices for preparing and conducting successful teacher-training workshops
- Developing an awareness of legal and educational policy issues relating to teaching with GIS

After the institute, to be completed by May 31, 2013

Each participant will be expected to complete three activities after the institute.

1. Present the results of your GIS work at a national, regional, state, or district conference. Email a copy of your presentation abstract, the name, date, and location of the conference, and a brief report (one paragraph) about your experience.

2. Conduct at least one hands-on training event for others on GIS. Email a brief overview of the training, number of attendees, and a brief report (one paragraph) about your experience.
3. Participate visibly on the Esri Web communities by doing at least **three** of the following:
 - a. Creating or enriching your profile on the Education Community (more elements, tie in to Facebook or Linked In accounts, etc.)
 - b. Join and contribute to ArcGIS Online groups
 - c. Participate in a forum or blog
 - d. Give a webinar about GIS in education
 - e. Build a lesson and post it on ESRI's ArcLessons Web site, <http://www.esri.com/arclessons>.
 - f. Another similar contribution

Recognition

Upon successful completion of the workshop in June, each participant will receive

- A Certificate of Completion from Esri.
- Complimentary personal copy of critical Esri software for one year. (Software will be selected based on individual participants' needs.)

Upon successful completion of the three follow-up activities, each participant may receive one additional year of maintenance on the software licensed above.

Costs

Registration

There is no registration fee.

Lodging

Esri blocks rooms in a local hotel that is located close to the Esri campus. U.S. participants lodging in a local hotel will be reimbursed up to \$250. This amount should fully cover six nights' lodging (Sunday night through Friday night) in a double-occupancy hotel room. It will cover part of the lodging cost for participants reserving a single room or making their own room reservation in a different hotel.

Transportation

Participants are responsible for their own travel to Redlands, California. The hotel is walking distance (three quarters of a mile) from the Esri Learning Center.

Meals

Participants will be responsible for their own meals, except for three dinners to be provided by Esri as part of the program. The hotel we work with provides a complimentary breakfast. Reasonably priced breakfast and lunch are readily available at the Esri Café. A variety of eating establishments are within walking distance from the hotel and the Esri Learning Center.

Equipment

Hands-on software activities will be held in an Esri classroom equipped with the necessary computing equipment, software, data, and Internet access. GPS units will be provided for use in field activities. Participants may choose to bring personal laptops for work outside class.

Support

The 2012 T3G Institute will receive financial support from the GeoTech Center (<http://geotechcenter.org>). Their contribution is funded, in part, by a grant from the Advanced Technological Education program of the Division of Undergraduate Education of the National Science Foundation (grant 0801893). Esri is grateful for GeoTech Center's generous support.

Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.



Applying for the 2012 Esri T3G Institute

Thank you for your interest in the 2012 Esri T3G Institute for educators. Please read the information in this application carefully. If you have questions, please check our Web site, <http://edcommunity.esri.com/t3g> or send email to t3g-institute@esri.com.

Carefully consider whether this institute is for you before applying:

- **This institute is for people who are interested in educating other education professionals about spatial thinking and GIS technology.** It is a “train-the-trainer” event. See the Overview section above for more information.
- **This institute requires skills in GIS, computers, and teaching, already in place in advance.** See *Prerequisites* above for details.
- **This institute application is challenging.** This application procedure is different from those of most teacher institutes. We are asking you to demonstrate various skills in computer use, problem solving, GIS, and instruction. (Note: The only application documentation is this form.) Plan to spend 6 to 8 hours preparing your complete application package.

Application Instructions

Your completed application will consist of an email with attachments and a link to an online GIS map that you create.

- **Part 1: Personal Information document (email attachment)**
- **Part 2: Lesson or module summary (email attachment/s)**
- **Part 3: ArcGIS Explorer Online presentation (link to shared map)**

If you are able to complete these items on your own, congratulations, as you are already an unusual teacher! If you do not know how to complete them all, seek technical assistance at your school, from your tech-savvy colleagues or students. Securing technical assistance when needed is an important skill in itself. Get as much help as necessary to do these tasks, but make sure that you do the actual work.

Macintosh or Windows? In tackling the application, use whichever platform is most convenient for you. No preference will be given on the basis of application platform, and depending on processes used, almost everything can be accomplished with equal facility on Windows or Macintosh.

Part 1 — Personal information document

In this document you will tell us about yourself — basic information, descriptions of your professional activities, and an explanation of why you want to attend this institute.

Save your document as a Microsoft Word document [.doc or .docx] or a text file [.rtf or .txt]. Name the file in the following fashion: **ST_Lastname_Part1.docx**, where ST is your state abbreviation (or country if not from USA).

The items to include are listed below. As you answer each of the items, please include the item number in your document. (Note: You may want to cut and paste the item elements from the electronic version of this application document into your word processor.)

Contact information

- (1) First name
- (2) Last name
- (3) Preferred site for receiving a letter or package – home or work
- (4) Home address
- (5) Home city
- (6) Home state
- (7) Home ZIP code
- (8) Home or mobile phone number
- (9) Primary email address to use for institute correspondence
- (10) Alternate email address
- (11) Gmail (Google email) address (if you have one)
- (12) Institution name
- (13) Institution address
- (14) Institution city
- (15) Institution state
- (16) Institution ZIP code
- (17) Institution phone number
- (18) Institution latitude (in decimal degrees to 4 decimals)
- (19) Institution longitude (in decimal degrees to 4 decimals)
- (20) Institution type (e.g., “K-6 public school” or “public middle school arts magnet”)
- (21) Usual teaching assignment (grades, subjects, courses), or relevant job role, if not a teacher

Your professional activities and reasons for attending this institute

Participants in this institute will be expected to conduct a training session and present at a conference after the institute, so it will help us to know your past professional development activities and your thoughts about your future.

- (22) List workshops, institutes, and other formal training events at which you have been a presenter since January 1, 2006, with a quick description (e.g., “October 1, 2007, presented 2 hours at an all-day, state Geography Alliance sponsored geography awareness week training” or “October 2009, presented at NCGE conference a 90-minute session on the geography of urban migration.”)
- (23) List any other relevant professional development activities at which you have been a participant since January 1, 2006 (e.g., “NSTA conference attendance, October 2008”).
- (24) List any formally published items that you have authored for widespread print or electronic distribution since January 1, 2006 (e.g., “authored article in *Journal of Geography*, July/Aug, 2010” or “oversaw construction of Minnesota GeoLinks, 200809-”).
- (25) When did you start using GIS? What experience have you had teaching with GIS?

- (26) What about GIS is most challenging for you?
- (27) What do you hope to learn from participating in T3G?
- (28) Tell us about your perspective on teachers and teaching as related to GIS, by writing 250-500 words for the following scenario: You are working in a GIS in Education booth at a conference. Someone asks you, “What is GIS? How can I use it in my classroom?” What do you say in response?

Part 2 — Lesson or module summary document

An absolutely essential part of being successful teaching others how to use computers in the classroom is to be experienced in using computers to teach. The process can be fraught with challenges! We want you to include a one-page summary write-up of a good example of a lesson or module that you have constructed and used in a classroom (or workshop) setting, where the students (or teachers) worked on computers.

In this document, describe a lesson or module that you constructed. First, describe in about half a page the nature and operation of the lesson. Second, describe in about half a page what students learn. You may include up to three images, such as screenshots or an exported ArcGIS layout. (Do not send us the actual lesson or module and all of the GIS data, which can be large and problematic.)

Organize the lesson summary into one or more files as needed. Use a similar naming convention as for Part 1, adjusting if necessary for multiple files. Example: **ST_Lastname_Part2_screen1.jpg**

Part 3 — Create and share an ArcGIS Explorer Online presentation

We want you to demonstrate your skill with ArcGIS—both ArcGIS Desktop and ArcGIS Online. Complete the task described below, and include a link in your application email to your shared map in ArcGIS Online.

To complete this part, you will need the following:

- Access to a copy of ArcGIS Desktop (ArcView, ArcEditor, or ArcInfo); any version
- Access to software for creating a “zip” file
- An ArcGIS Online account (<http://www.arcgis.com>)
- ArcGIS Explorer Online (<http://explorer.arcgis.com>)

Directions:

1. Using ArcGIS Desktop, create a shapefile with the following specifications:
 - a. The shapefile contains the counties of your state (and only your state).
Applicants from outside the USA, use sub-national first order administrative boundaries for your country, such as provinces, states or counties.
 - b. You can obtain the county data from any source of your choice (e.g., Esri Data and Maps, Census TIGER data, etc.).
 - c. One of the attributes of each county needs to be your name, as the preparer.
 - d. You may include other attributes; you may need one or more attributes for the topic you choose to map (see step 3).
2. Zip the shapefile.
3. Using ArcGIS Explorer Online, import your county layer into a map. Create a map and presentation with the following specifications:
 - a. The map should have at least one thematic map of your county layer, from an attribute of your choice

- b. Include two points (notes) showing (1) where you work, and (2) your favorite vacation spot or point of interest in your state
- c. Create no less than 3, and no more than 5 presentation slides showing something about your state

Tip: The design of the map and presentation has been left open-ended on purpose. You must choose what maps, pop-ups and other elements to include, and what story to tell.

4. Save and share your map.
 - a. Save your map to “My Content” on ArcGIS Online.
 - b. Name it **ST_Lastname_T3G2012** where ST is your state abbreviation (or country if not from USA).
 - c. Include **T3G2012** as a tag when you save your map.
 - d. Share your map with “Everyone (public)”.
 - e. Copy the link to the map from the Share dialog box (or from the Details page about your map) and paste it in your application email.

Submit your application

Once you have completed all three parts of your application, submit it by email. Address your submission to t3g-institute@esri.com. You can submit Parts 1 and 2 as individual or zipped attachments. For Part 3, include the map link provided on ArcGIS Online.

We will email you confirmation of receipt once we have saved and verified your files. (We process submissions as quickly as possible, during workdays only.)

If you have questions regarding this application, please direct your queries to the organizers of this institute. They may be reached at t3g-institute@esri.com.

To qualify, applications must include all items noted in this document.
Partial applications will not be considered.

**Completed applications must be received by midnight (Pacific Standard Time)
November 30, 2011.**

Institute invitations will be sent by Tuesday, December 20, 2011.