



UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF INDIAN AFFAIRS  
Office of Trust Services Geospatial Support  
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<http://www.bia.gov/WhatWeDo/ServiceOverview/Geospatial/index.htm>



# Office of Trust Services Geospatial Support GIS TRAINING SCHEDULE OCT 2012-MAR 2013

Version: 12 September 2012

The Office of Trust Services Geospatial Support (OTSGS) function provides training to BIA employees and employees of federally recognized Tribes. There is no tuition cost for this training. Expenses for transportation, hotel accommodations, and meals are the responsibility of the participant. Training courses are available at the OTSGS Training Facility in Lakewood, Colorado and at various field locations. The training schedule is subject to change at the discretion of the OTSGS.

## REGISTRATION

To enroll in a course, email or fax the completed and signed registration form (page 8) to [OTSGS@bia.gov](mailto:OTSGS@bia.gov) or 303-231-5229. Due to the high demand for training, please register early to ensure placement in the requested course.

- To register for a course, the registration form (page 8) must be completed for each course of interest. Only **one** course for **one** person per registration form. No registrations will be accepted over the phone. Please note the cancellation and absence policy.
- Confirmations are sent via email approximately 3-4 weeks before the start of a course. Please do not make travel arrangements until enrollment confirmation is received.
- If we are unable to enroll you, an email or fax will be sent indicating that your name will remain on the waitlist for the course. Should space become available, you will be contacted by the registrars. This does not put you on the waitlist for other courses.
- Should your contact information change, please contact the OTSGS Help Desk (toll-free) at 877-293-9494.
- Contractors and educators may be ineligible for these courses.

## TRAINING AND REGISTRATION POLICIES

### **REGISTRATION PRIORITY**

Courses taught at the Office of Trust Services Lakewood Training Facility in Lakewood, Colorado are filled on a first come, first served basis. Courses taught at field locations are filled in the following order:

- 1) Tribal employees from within the training location's BIA region
- 2) BIA employees from within the training location's BIA region
- 3) Tribal employees from outside of the training location's BIA region
- 4) BIA employees from outside the training location's BIA region

All courses are confirmed 3-4 weeks before the start date of the course, and are then filled on a first come, first served basis if not full.

## ***COURSE PREREQUISITES***

To fulfill a course PREREQUISITE, refer to the course description for the specific class that you want to sign up for. There may be both instructor-led and ESRI Virtual Campus course (see *ESRI Virtual Campus Courses* below) options that fulfill course prerequisites. If the prerequisite is completed through venues other than the BIA or is Web-based, a copy of your Certificate of Completion is required in order to enroll in the class. It is preferred that a copy of the certificate accompanies your faxed course registration form (see page 8), but a copy must be faxed to the registrars no later than four weeks prior to the start of the course. Failure to complete the prerequisites will result in the denial of enrollment.

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## ***ESRI VIRTUAL CAMPUS COURSES***

ESRI Web-based, Virtual Campus GIS courses are now available, at no cost, through the current Enterprise License Agreement (ELA) between ESRI and the Department of the Interior (DOI). For more information please see our product list, found online at <http://www.bia.gov/WhatWeDo/ServiceOverview/Geospatial/index.htm>, or contact the OTSGS Help Desk at 1-877-293-9494 for a list of courses and an order form.

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## ***CANCELLATIONS and ABSENCES***

Due to the high demand for training, the BIA has implemented a Cancellation Policy and an Absence Policy.

### ***Cancellation Policy***

If you are unable to attend a course for which you are registered, the BIA registrars must receive your cancellation a minimum of **one** week before the start of the course for which you are registered. Failure to give adequate notice of cancellation may result in the **denial of your registration** for other courses for a period of **one year**. If you need to cancel a course you are registered for, please contact the OTSGS Help Desk (toll-free) at 1-877-293-9494.

### ***Absence Policy***

Failure to attend a course for which you have been accepted may result in the **denial of your registration** for other courses for a period of **one year**. Suspension letters will be emailed to absentee students.

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## ***SCHEDULE RELEASES***

It is the practice of the BIA to schedule training classes in response to feedback received from the Tribal/BIA user community. It is important that both training held in the Lakewood Training Facility and field training classes extend to serve those interested in GIS training throughout all of the BIA regions. Thus for a calendar training year, every effort is made to schedule classes at locations in as many of the regions as possible. Once the schedule has been approved, some flexibility must remain to allow for adjustments; therefore, it is the policy of the BIA to release the upcoming schedule of classes on a bi-annual basis, releasing the schedule for a given half-year by the beginning of the previous quarter. You may look for schedule updates by the beginning of the quarter prior to the start of classes for that given schedule. You can find the schedule(s) online at <http://www.bia.gov/WhatWeDo/ServiceOverview/Geospatial/index.htm>.

## SUMMARY OF COURSE OFFERINGS

Course Offering	Course Number	Description	# of Days	Prerequisite	ESRI Course
<b>GIS Orientation</b>	<b>100</b>	One-day orientation for prospective hands-on GIS users and supervisors	1	NONE	
<b>Desktop I: Getting Started with GIS, v10</b>	<b>101</b>	A basic course intended for those new to GIS or with little GIS experience	3**	NONE	✓
<b>Desktop II: Tools &amp; Functionality, v10</b>	<b>102</b>	A course for ArcGIS 10	4**	Desktop I	✓
<b>Desktop III: Workflows &amp; Analysis, v10</b>	<b>103</b>	A course for ArcGIS 10	3**	Desktop II	✓
<b>Map Design with ArcGIS, v10</b>	<b>104</b>	Advanced map design using ArcGIS	4**	Desktop I	
<b>Building Geodatabases, v9.3</b>	<b>105</b>	Advanced Geodatabase functionality	3	Desktop I	✓
<b>Working with ArcGIS Spatial Analyst, v9.3</b>	<b>106</b>	Working with ArcGIS Spatial Analyst	4	Desktop II	✓

\*\* ACCELERATED versions of these courses are one day less in duration.

## COURSE DESCRIPTIONS

### ***GIS ORIENTATION (Course No. 100)***

This one-day orientation, developed by the BIA, is designed for prospective hands-on GIS users and those who are, or potentially will be, directly supervising hands-on GIS users, who are not currently experienced in the use of GIS. The orientation provides an overview of GIS, GIS capabilities, and ESRI's ArcGIS 10 Desktop software, including the opportunity for students to experience hands-on use of the software. Students should leave the orientation with a basic understanding of GIS, its capabilities, and its value to their business processes. They should also gain an understanding and realistic expectation as to what using and managing GIS requires, as well as an appreciation for the technical benefits and complexities of the ArcGIS Desktop suite of applications. The orientation is intended as a primer for further BIA GIS training for those who will become GIS users, and to provide supervisors with an understanding of what GIS users in their charge face with regard to their development as GIS users.

#### **COURSE TOPICS:**

- Introduce GIS and demonstrate what it can do
- Discuss components of GIS and how to get help with GIS
- Work with basic ArcGIS symbology and labeling functions
- Arranging a basic map layout

**PREREQUISITE:** Students should know how to use Microsoft Windows-based software.

### ***ArcGIS DESKTOP I: Getting Started with GIS, v10 (Course No. 101)***

This three day, ESRI certified course teaches the fundamental concepts and basic functions of a GIS, the properties of GIS maps, and the structure of a GIS database. In course exercises, students will develop basic software skills by working with ArcGIS Desktop 10.0 tools to visualize geographic data, create maps, query a GIS database, and analyze data using common analysis tools.

#### **WHO SHOULD ATTEND**

- Individuals who do not have any prior GIS education or workplace experience with GIS.
- Managers, GIS support staff, and anyone else who needs to understand how GIS fits into their organization.

#### **COURSE GOALS**

After completing this course, students will be able to:

- Understand what GIS is, what it can do, and how others are using it.
- See how your organization can benefit from a GIS.
- Create a basic GIS map.

- Work with different types of geographic data.
- Access information about geographic datasets and features.
- Apply a systematic approach to analyzing data in order to find patterns and relationships.

**PREREQUISITE:** Students should know how to use Microsoft Windows-based software.

**NOTE:** The BIA occasionally offers an ACCELERATED version of this course that is taught in two days. If you choose to sign up for the accelerated version of this course, please be aware that the pace will be RAPID as compared to the normal three-day format for this course. The accelerated format of this class can be combined with the accelerated format of *ArcGIS Desktop II: Tools and Functionality* to create a week-long learning experience.

### ***ArcGIS DESKTOP II: Tools and Functionality, v10 (Course No. 102)***

This four day, ESRI certified course follows *ArcGIS Desktop I: Getting Started with GIS*. This course introduces the fundamental concepts of ArcGIS Desktop 10.0 software and teaches students how to use it to visualize, create, manage, and analyze geographic data. In course exercises, students will use ArcGIS tools to efficiently perform common GIS tasks and workflows. By the end of the course, students will understand the range of ArcGIS Desktop functionality and be prepared to work with the software on their own to create GIS maps, work with geographic data, and perform GIS analysis.

#### **WHO SHOULD ATTEND**

- GIS professionals and others who have GIS knowledge but no ArcGIS software experience.

#### **COURSE GOALS**

After completing this course, students will be able to:

- Create a file geodatabase to store and manage geographic data.
- Create and edit geographic data to accurately represent real-world objects.
- Explore geographic data in ArcMap.
- Classify, symbolize, and label map features to improve map visualization and interpretation.
- Create data by geocoding addresses.
- Query and analyze GIS data to support decision making.
- Create maps to share with others.

**PREREQUISITE:** Students must have completed *ArcGIS Desktop I: Getting Started with GIS*, ESRI Web-based (Virtual Campus) *Learning ArcGIS 10* or equivalent course/experience.

**NOTE:** The BIA occasionally offers an ACCELERATED version of this course that is taught in three days. If you choose to sign up for the accelerated version of this course, please be aware that the pace will be RAPID as compared to the normal four-day format for this course. The accelerated format of this class can be combined with the accelerated format of *ArcGIS Desktop I: Getting Started with GIS* or the accelerated format of *ArcGIS Desktop III: GIS Workflows and Analysis* to create a week-long learning experience.

### ***ArcGIS DESKTOP III: GIS Workflows and Analysis, v10 (Course No. 103)***

This three-day ESRI certified course follows *ArcGIS Desktop II: Tools and Functionality*. Advance your ArcGIS Desktop 10.0 skills in this course that teaches how to create an efficient workflow that supports GIS analysis. Working with data stored in a geodatabase, you will organize and prepare data for analysis, create geoprocessing models, and work through a challenging analysis project. By the end of the course, students will be able to determine which tools and functions to use in a given situation and apply them to your analyses. The skills taught in this course are applicable to all types of GIS analysis.

#### **WHO SHOULD ATTEND**

- GIS analysts, GIS specialists, and other experienced ArcGIS Desktop users who want to extend their basic skills in the areas of data creation and editing, geoprocessing models, and GIS analysis.

#### **COURSE GOALS**

After completing this course, students will be able to:

- Add data from different sources to a geodatabase.
- Create and use geodatabase components that maintain data integrity and prevent errors during data creation and editing.
- Solve common spatial data alignment problems.
- Use a variety of geoprocessing tools to perform an analysis that supports decision making.
- Build a complex model to automate an analysis workflow.

**PREREQUISITE:** Students must have completed *ArcGIS Desktop II: Tools and Functionality* or equivalent course/experience.

**NOTE:** The BIA occasionally offers an ACCELERATED version of this course that is taught in two days. If you choose to sign up for the accelerated version of this course, please be aware that the pace will be RAPID as compared to the normal three-day format for this course.

### **MAP DESIGN WITH ArcGIS, v10 (Course No. 104)**

*Map Design with ArcGIS* (v9.3) is a four-day technical course developed by the BIA. This course emphasizes the advanced techniques involved in effectively communicating the results of geospatial analysis through paper map production, as well as through a variety of digital representations. Areas discussed are design, layout, symbolization, color theory, text and annotation usage, and overall theme communication. The four-day course format consists of delivery and discussion of lecture material, and detailed software exercises following each lecture topic. An additional highlight of the course is the interactive class critique of printed draft map versions and final digital map products produced in the exercises.

#### **COURSE GOALS**

- Conceptual map design and effective map communication
- Advanced color, symbology, and text concepts and application
- Achieving visual balance with effective map element arrangement
- Draft and final map product critique and output

**PREREQUISITE:** Students must have completed *ArcGIS Desktop I: Getting Started with ArcGIS* or equivalent course/experience.

**NOTE:** The BIA occasionally offers an ACCELERATED version of this course that is taught in three days. If you choose to sign up for the accelerated version of this course, please be aware that the pace will be RAPID as compared to the normal four-day format for this course.

### **BUILDING GEODATABASES, v9.3 (Course No. 105)**

Building Geodatabases is a three-day advanced ESRI-authorized course that focuses on the use of geodatabases in the ArcGIS 9.3 environment. The geodatabase is the ESRI data model that allows features to be modeled more realistically than ever before. This course introduces the structure and capabilities of the geodatabase. Students learn how to do the following: (1) create a geodatabase, (2) migrate existing GIS data to a geodatabase, and (3) edit and maintain data stored in a geodatabase. In course exercises, students practice creating and applying geodatabase components that enforce data integrity. This course is designed for experienced ArcGIS users who want to store and manage data in a geodatabase. Data managers will find this course of particular benefit.

**PREREQUISITE:** Students must have completed the ESRI authorized *Desktop I: Getting Started with ArcGIS* course.

### **WORKING WITH ArcGIS SPATIAL ANALYST, v9.3 (Course No. 106)**

This four-day ArcGIS v9.3 course explores how vector and raster data can be integrated to provide a powerful analytical environment. The course will involve raster concepts and shows how to use the Spatial Analyst tools for spatial models.

#### **COURSE GOALS**

- Understanding the raster data models
- Converting data to raster format
- Build raster databases
- Learn map algebra functions
- Learn distance modeling
- Interpolate surfaces from sample points
- Perform surface hydrology functions
- Image Georeferencing functions, and more

**PREREQUISITE:** Students must have completed *ArcGIS Desktop II: Tools and Functionality* or equivalent course/experience.

## OCTOBER 2012 – MARCH 2013 TRAINING SCHEDULE

Region / Field Location	Course	Date
NW / Lummi Nation <sup>1</sup> Bellingham, WA	<i>Map Design with ArcGIS*</i>	Oct 10-12, 2012
WES / Reno Sparks Indian Colony <sup>1</sup> Reno, NV	<i>ArcGIS Desktop I Getting Started with GIS</i>	Oct 29-30, 2012
WES / Reno Sparks Indian Colony <sup>1</sup> Reno, NV	<i>ArcGIS Desktop II Tools and Functionality*</i>	Oct 31–Nov 2, 2012
NAV / BIA Regional Office <sup>1</sup> Gallup, NM	<i>ArcGIS Desktop I Getting Started with GIS</i>	Nov 14-16, 2012
PAC / San Pasqual Tribe <sup>1</sup> San Diego, CA	<i>ArcGIS Desktop I Getting Started with GIS</i>	Dec 3-4, 2012
PAC / San Pasqual Tribe <sup>1</sup> San Diego, CA	<i>Map Design with ArcGIS*</i>	Dec 5-7, 2012
OTSGS Training Facility <sup>2</sup> Lakewood, CO	<i>ArcGIS Desktop I Getting Started with GIS*</i>	Dec 12-14, 2012
OTSGS Training Facility <sup>2</sup> Lakewood, CO	<i>ArcGIS Desktop II Tools and Functionality*</i>	Jan 8-10, 2013
MID / Bad River Tribe <sup>1</sup> Odanah, WI	<i>ArcGIS Desktop II Tools and Functionality*</i>	Jan 16-18, 2013
MID / BIA Regional Office <sup>1</sup> Minneapolis, MN	<i>ArcGIS Desktop III Workflows and Analysis*</i>	Jan 23-25, 2013
NW / Yurok Tribe <sup>1</sup> Klamath, CA	<i>ArcGIS Desktop II Tools and Functionality*</i>	Feb 4-6, 2013
NW / Yurok Tribe <sup>1</sup> Klamath, CA	<i>ArcGIS Desktop III Workflows and Analysis*</i>	Feb 7-8, 2013
NAV / BIA Regional Office <sup>1</sup> Gallup, NM	<i>Building Geodatabases (v9.3)</i>	Feb 27–Mar 1, 2013
EAS / Seminole Tribe <sup>1</sup> Hollywood, FL	<i>ArcGIS Desktop II Tools and Functionality*</i>	Mar 11-13, 2013
EAS / Seminole Tribe <sup>1</sup> Hollywood, FL	<i>ArcGIS Desktop III Workflows and Analysis*</i>	Mar 14-15, 2013
RM / BIA Regional Office <sup>1</sup> Billings, MT	<i>ArcGIS Desktop I Getting Started with GIS</i>	Mar 25-26, 2013
RM / BIA Regional Office <sup>1</sup> Billings, MT	<i>ArcGIS Desktop II Tools and Functionality*</i>	Mar 27-29, 2013

<sup>1</sup> Indicates Tribal Field Training. Please review the Registration Priority Policy on page 1.

<sup>2</sup> Indicates course is held at OTSGS Training Facility in Lakewood, Colorado and is filled on a first come, first served basis. See Registration Priority Policy on page 1 for more information.

\* Indicates course has a prerequisite. Please review Course Descriptions on pages 3-5.

**Questions? Please call the OTSGS Help Desk at 877-293-9494.**

## BUREAU OF INDIAN AFFAIRS REGIONAL MAP



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## ABOUT THE INSTRUCTORS

### ***R. J. Kern***

R. J. Kern is an Esri Certified Trainer as well as an Esri Authorized Instructor (v9.3) and has served the Bureau of Indian Affairs since 2005. He recently completed the Desktop Associate Exam and has received his CompTIA Certified Technical Trainer (CTT+) award. ESRI recognized R. J. as a "Top 5 Performer" from 2005-2009. R. J. received his B.A. in Environmental Geography and Art & Art History from Colgate University and a M.A. from the Department of Geography, University of Colorado Boulder. He served in the map division of the National Geographic Society for five years.

### ***Katie Lewers***

Katie Lewers is an Esri Certified Trainer and has served the Bureau of Indian Affairs since 2009. She is an Esri Certified ArcGIS Desktop Technical Associate as well as a CompTIA Certified Technical Trainer (CTT+). Katie received her B.B.A. in Management Information Systems and Geographic Information Systems from the University of Central Arkansas. Katie is a new member of the OTSGS training team and began teaching classes in August 2012.



**Office of Trust Services Geospatial Support  
GIS Training Program Registration Application**

The Office of Trust Services Geospatial Support (OTSGS) function is a provider of GIS Training to employees of federally-recognized tribes, as well as BIA central, regional, and agency offices. Contractors for these entities may be ineligible for these services unless compacted with a Tribe, Native Village, or BIA Office.

To register for a course, a registration form must be completed for each course of interest. **Email the completed registration form to OTSGS@bia.gov or fax to Attn: Registrar at 303-231-5229.**

Confirmations are sent via email or fax approximately four weeks before the start of the course. **Please do not make travel arrangements until enrollment confirmation is received.**

**All applicable fields must be filled in completely or delays in enrollment will occur.**

<b>Course Information (one registration form per course)</b>	
Course Name (select one)	
Course Date	Course Location
<b>Student Information (one registration form per student)</b>	
Student Name	Title
Employment Affiliation (select one) Tribal	BIA Region (select one) BIA
Tribe or BIA Agency of Employment	Department
Street Address	
City, State	Zip Code
Telephone	Fax
E-mail Address	
Previous GIS Training	
<b>Supervisor Approval</b>	
Supervisor Name	Supervisor Phone Number
Supervisor's Approval Signature (Required)	
<b>Student Confirmation</b>	
<p><b>Prerequisite Policy:</b> If the prerequisite is completed through venues other than the BIA or is Web-based, a Certificate of Completion is required. It is preferred that a copy of the certificate accompanies this form, but it is required that a copy be faxed to the registration no later than 4 weeks prior to the start of the course. Failure to complete the prerequisite will result in the denial of enrollment.</p> <p><b>Cancellation and Absence Policy:</b> Due to the high demand for training, the OTSGS has implemented a Cancellation and Absence policy. If you are unable to attend a course for which you are registered, the registrars must receive your cancellation a minimum of ONE week before the start of the course for which you are registered. Failure to give adequate notice of cancellation or failure to attend a course for which you are accepted may result in the denial of your registration for other courses for a period of one year. If you need to cancel a course you are registered for, please contact OTSGS Registration at 877-293-9494 (OTSGS Help Desk).</p> <p><b>I understand that this training event is subject to the Office of Trust Services Geospatial Support's Training Terms and Conditions. Full Terms and Conditions can be found at: <a href="http://www.bia.gov/WhatWeDo/ServiceOverview/Geospatial/index.htm">http://www.bia.gov/WhatWeDo/ServiceOverview/Geospatial/index.htm</a>.</b></p>	
Student Signature (Required)	Date: