



GEOSPATIAL TRAINING BROCHURE

The Branch of Geospatial Support (BOGS) provides geospatial training for employees of federally recognized tribes and Bureau of Indian Affairs (BIA) employees within the Office of Trust Services (OTS). Contact the Geospatial Help Desk toll-free at 1-877-293-9494 to ask if you or your organization is eligible for BOGS trainings. There is no cost for BOGS training. Training equipment and training materials are provided by BOGS. Expenses for transportation, hotel accommodations, and meals are the responsibility of the participant’s organization. Training courses are available at various locations including the BOGS Training Facility in Lakewood, CO. The BIA has set a maximum class size of twelve students for all courses, except GPS courses, which have a maximum class size of eight students. This allows the BIA the best opportunity to provide efficient and effective training.

TRAINING SCHEDULE

Principles of GIS

Beginner Level Requirements: None 3 days

The Principles of GIS course is a three-day technical course developed by the BIA and based on Gorr and Kurland’s GIS Tutorial 1: Basic Workbook for ArcGIS 10.3. Students will develop basic software skills by working with ArcGIS Desktop 10.4.1 to symbolize and create a basic map. This course is excellent for Individuals who do not have any prior GIS education or workplace experience, GIS support staff, and anyone else who needs to understand how GIS fits into their organization. The course goals are:

- Understand what GIS is, what it can do, and how others are using it.
 - Create a 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.

Map ID	Tribe / Office	Training Location	Dates
1	Quinault Indian Nation	Taholah, WA	Apr 30-May 2, 2018
2	White Earth Band of Chippewa Indians	White Earth, MN	May 14-16, 2018
3	Oneida Nation	Green Bay, WI	May 29-31, 2018
4	Red Cliff Tribe of Lake Superior Chippewa Indians	Bayfield, WI	Jun 11-13, 2018
5	Pueblo of Pojoaque	Santa Fe, NM	Jul 16-18, 2018
6	Shinnecock Tribe	Shinnecock, NY	Jul 16-18, 2018
7	Round Valley Indian Tribe	Covelo, CA	Aug 6-8, 2018
8	Standing Rock Sioux Tribe	Fort Yates, ND	Aug 20-22, 2018
9	Shoshone-Bannock Tribes	Pocatello, ID	Sep 10-12, 2018
10	Nez Perce Tribe	Lapwai, ID	Sep 17-19, 2018



Introduction to GPS using ArcPad

■ Beginner Level

Requirements: None

2 days

This two-day course presents an introduction to the Global Position System (GPS) using ArcPAD tools through the use of Trimble Juno 3B GPS receivers. This course will combine lectures, hands-on field exercises, and hands-on classroom exercises to teach the basic principles of GPS fieldwork. Students will follow the GPS/GIS workflow to prepare data, create maps as field templates, and update data. This course is developed for employees who will be performing field tasks leveraging GPS technology and using ArcPad for data collection. The course goals are:

- Learn the basic principles of GPS and how it is leveraged to capture data.
- Read and comprehend GPS unit information and use the ArcPad Interface.
- Creating quickforms with pulldown lists, set min/max ranges, Yes/No values and tooltips.
- Collect GPS field data using field based hands-on exercises.
- Discuss how GPS works and how GPS can benefit your organization.

Map ID	Tribe / Office	Training Location	Dates
11	Seminole Tribe of Florida	Hollywood, FL	Jun 18-19, 2018
12	Pueblo of Pojoaque	Santa Fe, NM	Jul 23-24, 2018
13	Round Valley Indian Tribe	Covelo, CA	Aug 9-10, 2018
14	Three Affiliated Tribes	New Town, ND	Aug 16-17, 2018

Fundamentals of Remote Sensing

■ Intermediate Level

Requirements: Principles of GIS

3 days

The Fundamentals of Remote Sensing course is a three-day course developed by NASA. This course will introduce participants to the fundamentals of remote sensing including the basics of land cover mapping and change detections. The course will emphasize and give examples of how remote sensing is used for wildfire management, water quality, forest health, drought, and other natural resource management applications. No remote sensing background is required. The course goals are:

- Learn the fundamentals of remote sensing, what it can do, and how others are using it.
- Learn methods to visualize, interpret, and analyze satellite data.
- Access satellite imagery.
- Analyze satellite imagery including land cover mapping and change detection.

Map ID	Tribe / Office	Training Location	Dates
15	BIA Alaska Region	Juneau, AK	Jun 25-27, 2018
16	Three Affiliated Tribes	New Town, ND	Aug 13-15, 2018
17	Twenty-Nine Palms Band of Mission Indians	Coachella, CA	Aug 27-29, 2018
18	Rocky Mountain Regional Office	Billings, MT	Sep 5-7, 2018



Geodatabase Management Solutions

■ **Intermediate Level** **Requirements: Principles of GIS** **3 days**

The three-day Geodatabase Management Solutions course explains and explores the geodatabase, the native data storage format for ArcGIS software. This course details the best practices to create a geodatabase to efficiently manage an organization's authoritative geospatial data. Students will learn the skills needed to configure unique geodatabase features that ensure data integrity and accuracy. Students will also learn how to use topology to model real-world spatial relationships. This course is developed for GIS Professionals and Administrators who need to ensure data quality for multiple users. The goals of this course are:

- Create geodatabases, feature classes, relationship classes, topologies, and geometric networks.
- Identify errors in spatial and attribute data using ArcGIS Data Reviewer.
- Implement design strategies for multi-user systems.
- Leverage ArcGIS Solutions by using GIS information models.

Map ID	Tribe / Office	Training Location	Dates
19	Seminole Tribe of Florida	Hollywood, FL	Jun 20-22, 2018

Introduction to Cartography

■ **Intermediate Level** **Requirements: Principles of GIS** **3 days**

The Introduction to Cartography course is a three-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. 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 and final digital map products produced in the course exercises. This course is suited for individuals who have workplace experience with GIS and need to make maps as part of their job description. The course goals are:

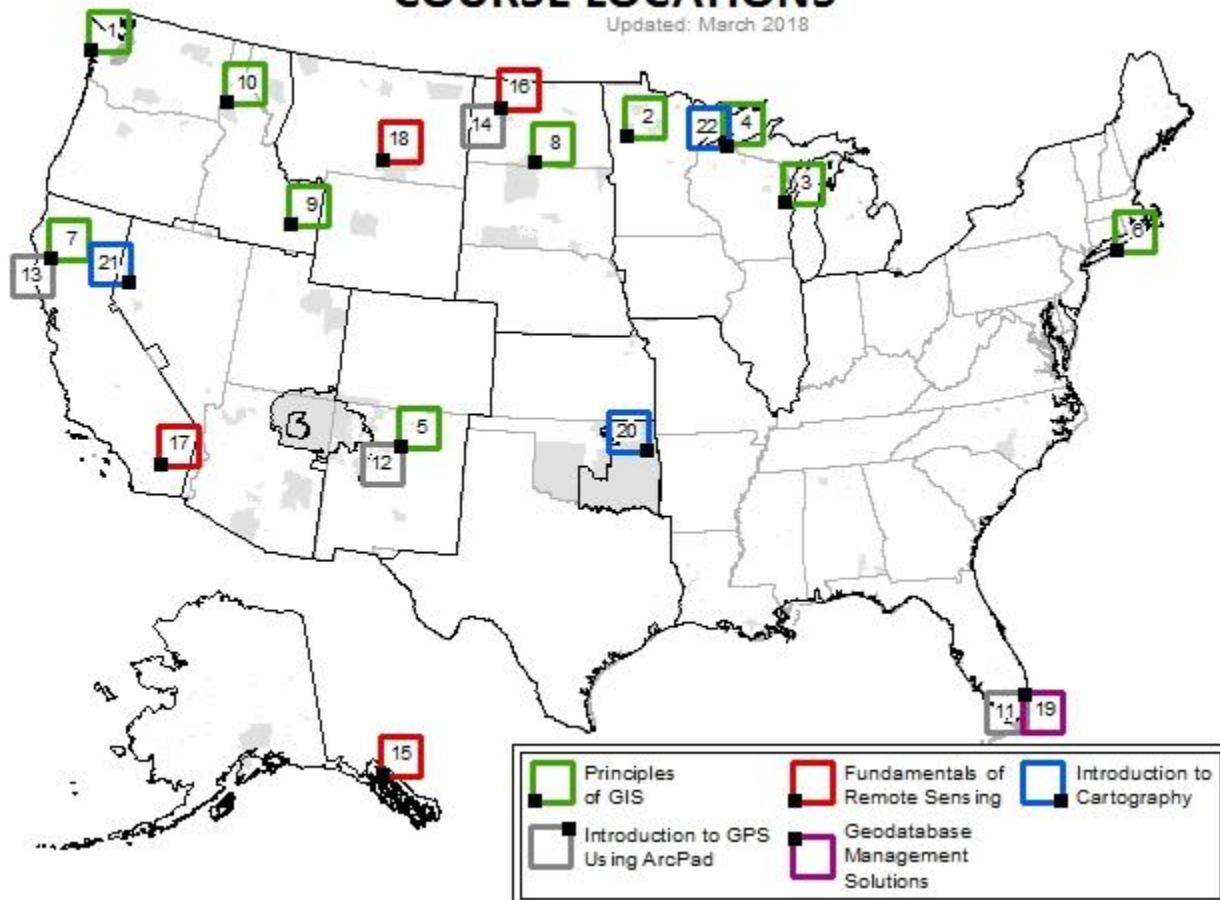
- Conceptual map design and effective map communication.
- Advanced color, symbology, and text concepts and applications.
- Achieving visual balance with effective map element arrangement.

Map ID	Tribe / Office	Training Location	Dates
20	Cherokee Nation	Tahlequah, OK	Apr 23-25, 2018
21	Pyramid Lake Paiute Tribe	Wadsworth, NV	Apr 30-May 2, 2018
22	Bad River Band of Lake Superior Tribe of Chippewa Indians	Odanah, WI	Jun 4-6, 2018



COURSE LOCATIONS

Updated: March 2018



COURSE REQUIREMENTS

BOGS courses listed as intermediate or advanced require students to already have some GIS knowledge to ensure all students in the class can be taught at the same level. There are instructor-led and online course options to fulfill the requirements for the intermediate and advanced classes.

Course Level	Requirement
■ Beginner	None
■ Intermediate	BOGS's Principles of GIS or Esri's Getting Started with GIS
■ Advanced	BOGS's Cartography or Esri's Getting Started with GIS

If the requirement is completed through an online course, a copy of your certificate of completion needs to be emailed to geospatial@bia.gov or faxed to 303.231.5229 prior to attending the intermediate or advanced course. Failure to complete the requirement may result in the denial of enrollment.



COMPLETE COURSE CATALOG

BOGS currently has six courses in the training catalog. Not all courses will appear on each training schedule. For information about a course, please contact the Geospatial Support Help Desk at geospatial@bia.gov or 877-293-9494.

- Principles of GIS
- Introduction to the U.S. National Grid
- Geodatabase Management Solutions
- Introduction to GPS using ArcPad
- Fundamentals of Remote Sensing
- Introduction to Cartography

TRAINING AND REGISTRATION POLICIES

REGISTRATION

To register for a course, email or fax the completed and signed registration form (included at the end of the brochure) to geospatial@bia.gov or 303-231-5229. Only one person and one course per registration form. No registrations will be accepted over the phone. You will receive a confirmation email once your registration has been received to notify you that the registration is being processed. If you do not receive a processing email within 24 hours, please contact the Geospatial Support Help Desk at geospatial@bia.gov or 1-877-293-9494 to ensure your registration form was received.

Enrollment confirmations are sent via email approximately four weeks before the start of a course. Please do not make travel arrangements until you receive your enrollment confirmation. Due to the high demand for geospatial training, please register early to help ensure placement in the registered course. If BOGS is unable to enroll you, an email will be sent indicating that your name will remain on the waitlist for the course. Should a space become available, you will be contacted by the registrar.

REGISTRATION PRIORITY

BOGS honors all training requests from employees of federally recognized tribal entities and employees of the BIA. Tribal employees receive priority for all classes. Additionally, the order in which the student registrations are received, proximity to the training location, and host constraints will be taken in consideration. If BOGS is unable to enroll you in your requested course, you will be placed on a waitlist.

BOGS ATTENDANCE POLICY

BOGS Attendance Policy requires at least 80% attendance in order to receive a certificate of completion. A certificate will be issued for each course completed. If you are absent for more than eight hours during the course without notifying the instructor, your manager or organization may be contacted per BOGS's safety protocol.

STUDENT CANCELLATION POLICY

If you are unable to attend a course for which you are registered, the BOGS Registrar must receive your cancellation a minimum of one week before the start of the course for which you are registered. If the registrar does not receive the required notice of cancellation, it may result in the denial of your registration for future courses. If you need to cancel a course you are registered for, please contact the Geospatial Support Help Desk at 877-293-9494 or geospatial@bia.gov.



COURSE CANCELLATION POLICY

In certain situations, it may be necessary for the BIA to cancel a course due to inclement weather, low enrollment, or other unforeseeable circumstances. In the event of a cancellation, the BIA will make every effort to cancel the course before enrollment confirmation information is sent.

SUPPLEMENTAL INFORMATION

SCHEDULE RELEASES

The training schedule is updated twice a year in February and August. The schedule is subject to change at the discretion of the BIA. You can find the current Geospatial Training Schedule and any changes online at <https://www.bia.gov/gis>.

HOSTING TRAINING

If your organization is interested in hosting training, please contact the Geospatial Support Help Desk at 877-293-9494 or geospatial@bia.gov to obtain a Request to Host Geospatial Training form. BOGS will provide all laptops and training materials. We will contact you to coordinate the best time and location that best suits your needs.

CONFERENCE COURSES

Some courses are scheduled in conjunction with conferences. These courses may be specially designed for conferences and may not be available for future offerings. Furthermore, these courses may be subject to registration policies other than the BOGS registration policy. Registration policy exceptions are generally noted at the bottom of the Training Schedule section. Contact the BOGS Registrar at 877-293-9494 or geospatial@bia.gov for conference registration information or contact information for registration.

INSTRUCTOR CREDENTIALS

All instructors have the following minimum certifications:

- ESRI Certified ArcGIS Desktop Technical Associate,
- CompTIA Certified Technical Trainer (CTT+),
- Bachelor's or master's degree in a relevant field, and 5+ years of GIS experience.



BRANCH OF GEOSPATIAL SUPPORT

DIVISION OF LAND TITLES AND RECORDS
OFFICE OF TRUST SERVICE, BUREAU OF INDIAN AFFAIRS



13922 DENVER WEST PARKWAY, BUILDING 54, SUITE 300, LAKEWOOD, CO 80401 877.293.9494 <https://bia.gov/gis>

TRAINING COURSE REGISTRATION

The Branch of Geospatial Support (BOGS) provides geospatial training for employees of federally recognized tribes and to Office of Trust Services (OTS) supported functions within the Bureau of Indian Affairs (BIA). To register, a registration form must be completed for each course of interest. Email the completed registration form to geospatial@bia.gov or fax to **Attn: Registrar at 303-231-5229**. Processing emails are sent within 24 hours. 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 completely filled in or delays in enrollment will occur.

Course Information (one registration form per course)

Course Name (select one):

Course Location:

Course Date:

Student Information (one registration form per student)

Student Name:

Job Title:

Employer (select one):

BIA

Tribal

Email Address:

Tribe or BIA Agency of Employment:

Department:

City, State:

Zip Code:

Telephone:

Current Job Duties (check all that apply)

- Drones/UAVs/FAA
- Environmental
- Facilities Mgmt
- Feature Extraction
- GIS Administration
- GPS
- Land Mgmt
- LiDAR
- Remote Sensing
- Risk Analysis
- Satellite Analysis
- SDE/Server/Versioning
- Soil Conservation
- Statistical Analysis
- Surveying/GPS
- TAAMS/PLSS
- Web Development
- Other

Current Industry (check all that apply)

- Archaeology/Cultural
- Business
- Climate Change
- Education
- Emergency Mgmt
- Engineering
- Fire
- Fish/Wildlife
- Forestry
- Geospatial
- Health Services
- IT/Development/Admin
- Natural Resources
- Planning/Zoning
- Police/ 911
- Real Estate
- Transportation
- Utilities
- Water Resources
- Water/Wastewater

Supervisor Approval

Supervisor Name:

Supervisor Telephone:

Supervisor's Approval Signature (Required):

Date:

Student Confirmation

Prerequisite Policy: 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® E-Learning course options that fulfill course prerequisites. If the prerequisite is completed through venues other than the BIA or is an online course, a copy of your certificate of completion is required in order to enroll in the course. A copy of the certificate of completion can be sent along with your emailed or faxed Training Course Registration. The certificate must be emailed or faxed to the BOGS Registrar no later than four weeks prior to the start of the course. Failure to complete the prerequisites may result in the denial of enrollment.

Cancellation and Absence Policy: If you are unable to attend a course for which you are registered, the BOGS Registrar must receive your cancellation a minimum of one week before the start of the course for which you are registered. If the registrar does not receive the required notice of cancellation, it may result in the denial of your registration for future courses. If you need to cancel a course you are registered for, please contact the Geospatial Support Help Desk at geospatial@bia.gov or 877-293-9494. Not attending a course for which you have been accepted may result in the denial of your registration for other courses. If you are absent for more than eight hours during the course without notifying the instructor, your manager or organization may be contacted per the BOGS's safety protocol.

In certain situations, it may be necessary for BOGS to cancel a course due inclement weather, low enrollment, or other unforeseeable circumstances. In the event of a cancellation, BOGS will make every effort to cancel the course before confirmation information is sent out.

I understand that this training event is subject to the Branch of Geospatial Support's Training Terms and Conditions. Full Terms and Conditions can be found in the BOGS Training Brochure and schedule at <https://www.bia.gov/gis>.

Student Signature (Required):

Date:

Please contact the Geospatial Support Help Desk at 877.293.9494 or geospatial@bia.gov for additional help.