

ITEP Air Quality Training Courses

July 2008 – June 2009



**The Institute for Tribal
Environmental Professionals**

Sponsored by the Institute for Tribal Environmental Professionals /
American Indian Air Quality Training Program
with support from
the U.S. Environmental Protection Agency

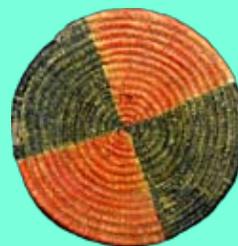


ITEP is committed to the letter and spirit of the Americans with Disabilities Act and strives to ensure full access to all its training sites and activities. We are also committed to using:

- Recycled products and recycling companies
- Facilities that employ recycling



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Introduction

In 1993, a partnership was formed between the U.S. Environmental Protection Agency (EPA) and Northern Arizona University (NAU) in Flagstaff, Arizona, setting the stage for the creation of the Institute for Tribal Environmental Professionals (ITEP) and its American Indian Air Quality Training Program (AIAQTP). AIAQTP seeks to fulfill the mandate of the 1990 Clean Air Act: to offer Native American tribes full partnership in the management of air quality on tribal lands. Since 1993, environmental professionals from more than 300 tribes have taken part in AIAQTP's courses, and many tribal representatives have drawn on other AIAQTP services and resources.

The AIAQTP endeavors to meet tribal environmental education and training needs by:

- Offering timely, appropriate, and culturally sensitive education, training, and support through courses, forums, professional assistance, internships, and newsletters
- Presenting a variety of technical training sessions and other services through ITEP's Tribal Air Monitoring Support (TAMS) Center
- Stimulating interest among Native youth to pursue environmental careers through student employment, K-12 and community-college outreach, teacher training, and summer internships
- Maintaining a clearinghouse of environmental resources, contacts, and training materials through the Tribal Environmental Resource Center (TERC)

ITEP training courses are an integral part of the AIAQTP. Courses are developed by tribal and other experts for audiences of various skill levels.

Level One courses:

- Introductory air-management courses geared to the non-scientist
- Provide essential, basic information
- May serve as prerequisites for other courses

Level Two courses:

- Somewhat more advanced
- Require the completion of related Level One courses or their equivalents

Level Three courses:

- Single-topic, advanced courses
- Require completion of appropriate Level Two courses or equivalent training and experience.

New and specialty courses are developed as needed. For example, when the 2008 ozone-standard change was proposed, several ITEP courses placed greater emphasis on ozone pollution and ozone-related policy, and as data submission to EPA's National Emissions Inventory has grown more important, we've intensified our efforts to train tribal air professionals in submitting EI data. As regulations, standards, and trends change, AIAQTP courses will continue to evolve to provide the most up-to-date information available.



Course Logistics and Contacts



Applying for ITEP Training Courses

For each course you wish to attend, fill out an application and return it to ITEP by the posted pre-registration date. Applications received on-time will receive priority over other applications; however, applications will continue to be accepted until a course is filled. Pre-registration deadlines for all ITEP training courses are listed on the ITEP website. To obtain an application form, see the contact information below. When applying, please specify the course location and starting date.

NOTE: DATES AND LOCATIONS MIGHT CHANGE. Consult the ITEP website for updates.

ITEP Course-schedule URL: www4.nau.edu/itep/trainings/aiaqtp.asp

Course Prerequisites

Most ITEP courses may be taken only after participants have completed lower-level courses. Prerequisites, if necessary for participation in a course, are listed at the end of each course description. Please plan your training schedule in advance to satisfy prerequisites in the most timely manner. Contact us if you need assistance to plan your training schedule or to discuss prerequisites.

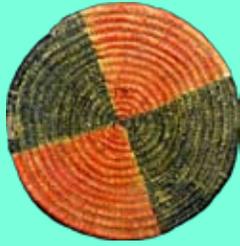
Additional Responsibilities

Once you have confirmed your attendance, it is essential that you complete the course. 100% class attendance is required of participants; reimbursements may be forfeited if you fail to participate in all course-related activities, and only those who attend all class segments will receive certificates of completion.

For general information and course applications, contact:

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ITEP
Northern Arizona University
P.O. Box 15004
Flagstaff, Arizona 86011-5004
Phone: (928) 523-5504
Fax: 928-523-1266
e-mail: Sharlene.Brown@nau.edu

Lydia Scheer
ITEP
Northern Arizona University
P.O. Box 15004
Flagstaff, Arizona 86011-5004
Phone: (928) 523-6887
Fax: 928-523-1266
e-mail: Lydia.Scheer@nau.edu



ITEP's Cost-Sharing Policy

ITEP provides financial support to tribal representatives who are selected to attend air quality training courses or participate in professional-assistance activities. As of September 1, 2005, ITEP will provide for lodging and per diem costs only. Tribal participants are responsible for all other costs, including those associated with transportation to and from the training location. However, ITEP will make an exception to the cost-sharing policy when a tribal applicant clearly documents the need for assistance and the importance of the training to advance the tribe's air quality program or activities. This exception can be made for a limited number of individuals per course and will depend on the availability of funds.

How does it work?

1. The AIAQTP course-application packet includes a form for requesting additional travel assistance
2. Applications for assistance will be reviewed by the AIAQTP staff
3. Based on a standard list of considerations, ITEP staff will determine whether assistance can be granted
4. When assistance is granted, the AIAQTP will have final approval of all costs and may suggest the most cost-effective modes of transportation
5. AIAQTP will consult both the tribes and EPA as needed to determine training priorities and availability of funds
6. ITEP's Attendee Expectations and Cancellation policies will remain unchanged for those who are granted additional travel assistance

Why is ITEP implementing this approach?

This change from the practice of funding all costs associated with attending AIAQTP training courses is the result of a cost-saving measure required by our grant from U.S. EPA. The AIAQTP has found that sharing the costs of attending a training course with the tribes we serve, while still providing additional funds for those requiring special assistance, is the most efficient and fair approach. We hope tribal air professionals, by involving tribal government in these decisions, receive the training they need while also developing and maintaining support from the tribe for their efforts.

Professional Assistance



ITEP's Professional Assistance (PA) Program is designed to meet the individualized training needs of tribal air quality professionals. Professional Assistance can take many forms and can address a multitude of air quality topics. To obtain an application form, please visit the ITEP website (www.nau.edu/itep/programs/pa.asp), or contact Lydia Scheer at 928-523-6887 (Lydia.Scheer@nau.edu).

Applications for training are accepted throughout the year, and financial support in the form of travel, lodging, and/or per diem costs can be provided on a case-by-case basis. Available funding places limits on the amount of support we can provide, but we try to accommodate everyone who applies.

Professional Internships

The PA program will help arrange an internship placement with a suitable tribal, federal, state or local air quality office for training with experienced professionals, on topics identified by the applicant. ITEP will work closely with each candidate to arrange for a substantive experience in a quality working environment.

Individual Assistance

ITEP or other technical staff can provide specialized assistance to individuals on a variety of technical topics. Training can be provided at the tribal site, ITEP, the TAMS Center, or another location. ITEP can occasionally provide financial assistance to a tribal air professional to attend a course provided by another training organization.

Host Sites

Utilizing tribal professionals to train other tribal professionals is one way ITEP endeavors to meet its goal of building tribal capacity. Host sites are needed to meet the varied training requests of tribal professionals. A tribal office wishing to serve as a training host site should contact ITEP with a proposal outlining:

- The types of assistance that can be provided
- The capacity to provide a quality working and learning environment.

Examples of training topics:

- Technical assistance with monitors, analyzers, meteorological sensors and other equipment
- Monitor siting and/or network design
- Development or review of a Quality Assurance Project Plan (QAPP)
- Emissions Inventory
- Equipment audits or calibrations
- Air monitoring data management
- Dataloggers/Data Acquisition Systems
- Permitting
- Tribal Implementation Plans
- Modeling

AIAQTP Mini-Courses



The American Indian Air Quality Training Program (AIAQTP) offers tribes the opportunity to request specialized training in the form of mini-courses through ITEP's Professional Assistance program. If you don't see an online or classroom course offered that suits your needs, contact Lydia Scheer at 928-523-6887, e-mail lydia.scheer@nau.edu. If we receive several requests for a specific topic, we will organize a specialized mini-course to meet that need.

A mini-course will typically be of short duration (1-3 days) and have a small enrollment.

This type of course can be offered for several tribes in a particular geographical area, providing convenient training for air staff with similar needs. A mini-course could also be offered at the TAMS Center or elsewhere.

Examples of potential mini-courses:

- TEISS
- PM Monitoring
- Mercury Monitoring
- Basics of Quality Assurance
- Air Quality Computations
- Tribal Data Toolbox
- AQS
- Data Analysis and Interpretation
- Community Health and Risk Assessment

ITEP will make every effort to utilize our limited funding to provide mini-courses when and where they're needed.

Tribal Air Monitoring Support (TAMS) Center



The Tribal Air Monitoring Support (TAMS) Center was created by ITEP as a part of the AIAQTP, through a partnership among the tribes, ITEP, and the United States Environmental Protection Agency (EPA). As the first technical training center designed specifically to meet the needs of tribes involved in air quality management, the TAMS Center offers an array of training and support services. Its mission is to develop tribal capacity to assess, understand, and prevent environmental impacts that adversely affect health and cultural and natural resources.

Training Courses

A variety of training courses are conducted through the TAMS Center on topics related to ambient and indoor air quality monitoring. Courses have been designed to complement other American Indian Air Quality Training Program courses and generally address more-technical air quality issues. Each course is designed with tribal audiences and issues in mind; tribal environmental professionals are included in course-planning and instructional teams. Class size is limited to ensure effective interaction and hands-on training.

Instrument Loans

The TAMS Center has limited capacity to loan, on an interim basis, various air monitoring instruments to tribes. Examples include: MiniVols, PM_{2.5} FRMs, IAQ instruments, and calibration and audit equipment.

Online Resources

The Resource Information Center (RIC) houses resources for tribal air monitoring programs. Resources available through the RIC include documents dealing with air pollutants and their health effects; monitoring/analysis equipment information; EPA guidance documents; and tribal document templates (such as QAPPs and grant work plans). This information is accessible via the TAMS Center's website.

Lab and Audit Services

The TAMS Center also provides free gravimetric services for tribes conducting PM_{2.5} filter-based monitoring. The lab has the capacity to serve approximately ten tribes at a time. This service is offered as an interim solution until a tribe can arrange for more-permanent filter-weighing services from another lab. National Performance Assessment Program (NPAP) audits can be performed free for tribes upon request.

For more information about the TAMS Center, please contact:

Lee Rose, TAMS Administrative Assistant
Phone: 702-784-8264 Fax: 702-784-8261
e-mail: lee.rose@nau.edu
or visit the TAMS Website: www.nau.edu/tams/



Receiving Academic Credit for Courses Offered by the American Indian Air Quality Training Program

NAU Course Name: Topics in Tribal Air Quality Management

Certain AIAQTP courses carry undergraduate academic credit provided by Northern Arizona University (NAU). For eligibility requirements and other details, or to request paperwork to begin the process, please contact Pat Ellsworth at 928-523-6721, e-mail patricia.ellsworth@nau.edu, or contact Lydia Scheer at 928-523-6887, e-mail lydia.scheer@nau.edu. Highlights of this program are below. To obtain academic credit for a course:

- You will be admitted to NAU as a non-degree-seeking undergraduate student.
- Your enrollment application and registration forms will be submitted before the start of the term in which the course is scheduled.
- You will pay a \$25.00 one-time application fee to NAU. AIAQTP and NAU will pay all costs associated with tuition and other fees.
- Letter grades will be assigned by ITEP staff and instructors.

NOTE: 100% attendance at all scheduled sessions is mandatory.

The following courses carry the option of one (1.0) undergraduate credit; credits are transferable to other institutions (at their discretion). Please see individual course syllabi for specific requirements, including homework assignments, recommended readings, and other details.

- Management of Tribal Air Programs and Grants
- Air Pollution Technology
- Emissions Inventory
- Air Monitoring Data Management (classroom or online version)
- Quality Assurance Project Plans
- Data Analysis and Interpretation
- Clean Air Act and Permitting*
- Reviewing State Title V Permits*

*** These two courses must be combined for one (1.0) credit.**



AIAQTP Online Courses



To expand training opportunities for tribal air professionals, in FY2009 we will offer four online courses (see course descriptions on the following pages).

For more information on ITEP's online courses, contact Lydia Scheer at lydia.scheer@nau.edu, phone 928-523-6887. Or contact Pat Ellsworth at patricia.ellsworth@nau.edu, phone 928-523-6721.



Air Monitoring Data Management Level 3

Course Description

This interactive course provides an understanding of the skills needed to successfully manage, interpret, report, and present air quality data. The course also addresses planning how to manage, validate, and report data using Microsoft Excel.

Topics include:

- Legally-defensible data
- Data retrieval & transfer
- Data review and validation
- Data analysis and presentation
- Using Quality Control (QC) data
- Reporting
- Preparing for audits

Who Should Take This Course

This course is open to tribal environmental professionals who have successfully completed ITEP's *Air Pollution Technology* (TECH) course or have equivalent training or experience. Participants must be conducting ambient air monitoring or have equipment in-house and plan to start monitoring within six months.

Course Structure and Approach

This course takes a "learn by doing" approach. Textual material explaining concepts is interspersed with exercises in which participants practice the skills introduced in the text. Hands-on exercises follow the data-management process, beginning with data collection from an analyzer or datalogger and moving through data validation to reporting.

Prerequisites:

1. INTRO, INTRO/OUTREACH, INTRO/COMP, or *AQ in AK Native Villages*
2. COMP, INTRO/COMP, or *Basic Source Assessment/COMP*
3. TECH

NOTE: This course may be taken for academic credit (see page 8 for details).

Mapping Air Data Using GIS Level 2



Course Description

This short course demonstrates how to map data using ArcView (available free to tribes via the Bureau of Indian Affairs) or other GIS software. Participants are directed to different sources of available data for interpretation purposes. After completing this course, participants will be able to download data from the EPA AirData website and construct a data map using GIS software.

Topics include:

- Downloading data from EPA's AirData website
- Manipulating data in Microsoft Excel
- Working with feature class, layer, and shape files
- Creating and modifying maps

Who Should Take This Course

This course is open to anyone interested in learning GIS air-data mapping. Participants will benefit from having completed at least two ITEP air courses.

Course Structure and Approach

This course takes a “learn by doing” approach. Textual material explaining concepts is interspersed with exercises in which participants practice the skills introduced in the text.

Recommended Courses:

1. INTRO, INTRO/OUTREACH, INTRO/COMP, or *Air Quality in AK Native Villages*
2. COMP, INTRO/COMP, or *Basic Source Assessment/COMP*



Tribal Emissions Inventory Software Solution (TEISS) Level 3

Course Description:

Tribal environmental professionals have long needed an easy-to-use computer software application to calculate, organize, store, and report air pollution emissions occurring in Indian Country. The Tribal Emissions Inventory Software Solution (TEISS) fulfills that need. This course teaches the use of TEISS so tribal air staff can develop their own air emissions inventory data.

Topics include:

- Emissions inventory overview
- Starting a project and EI codes
- Emission estimates
- Inventory Preparation Plans (IPP)
- TEISS geographic data tools
- National Emissions Inventory (NEI)
- Tribal case studies
- QA/QC: TEISS functions and utilities
- On-road mobile sources
- Non-road mobile sources
- EPA models

Who Should Take This Course

The TEISS online course is intended for tribal environmental professionals who have completed ITEP's *Air Pollution Technology (TECH)* course and have some background or training in emissions inventories.

Course Structure and Approach

The course consists of online reading material, exercises, and a bulletin board to facilitate communication. The course is open for browsing and for use as a reference. ITEP staff will respond to questions posted on the bulletin board as time allows. There is no certificate of completion offered for this course. Participants are encouraged to work through it at their own pace, or to use only the sections of interest to them.

Prerequisites:

1. INTRO, INTRO/OUTREACH, INTRO/COMP, or *Air Quality in AK Native Villages*
2. COMP, INTRO/COMP, or *Basic Source Assessment/COMP*
3. TECH

Tribal Data Toolbox

Level 3



Course Description:

This course provides training on the Tribal Data Toolbox, a free, stand-alone Microsoft Access database designed specifically for tribal air programs. The Toolbox can store and manage all air monitoring data including criteria pollutants (both manual and continuous methods); meteorological data; QC and audit data; and administrative information such as personnel, site information, and equipment tracking. The Toolbox can generate AQS data files and a variety of reports and charts.

Topics include:

- Entering and modifying personnel, site, and equipment data
- Entering and using Quality Control (QC) data
- Importing continuous and manual (filter) method data files
- Importing meteorological data files
- Qualifying (flagging) and invalidating data
- Generating reports and charts both as summary information and to assist in interpreting data
- Generating AQS-formatted files from raw data files

Who Should Take This Course:

This course is designed for tribal environmental professionals who are currently monitoring or collecting data for at least one criteria pollutant or for meteorological conditions. This is an advanced course; applicants should have completed ITEP's *Air Pollution Technology* (TECH) course before attending. ITEP's *Air Monitoring Data Management* course is also recommended as preparation for the Toolbox training.

Course Structure and Approach:

This course includes extensive hands-on computer exercises as well as textual material. Participants are expected to have an intermediate-level working knowledge of Microsoft Windows. Although the course is structured around a Microsoft Access database, the database is form-driven and user-friendly; therefore no previous Access experience is necessary.

Prerequisites:

1. INTRO, INTRO/OUTREACH, INTRO/COMP, or *Air Quality in AK Native Villages*
2. COMP, INTRO/COMP, or *Basic Source Assessment/COMP*
3. TECH

AIAQTP Classroom Courses



Because course dates and locations can change through the year, this catalog does not list course-schedule information. For updated course dates and locations, please visit the ITEP website at:

www4.nau.edu/itep/trainings/aiaqtp.asp

NOTE: Some course-attendance prerequisites can be satisfied by non-ITEP classroom training or sufficient work experience. Check with ITEP staff to make sure your prior experience or training will satisfy an ITEP prerequisite.

Air Quality Computations Level 1



Course Description

This course provides an understanding of the skills needed to work with air quality measurements.

Topics include:

- Arithmetic computations in air quality
- Metric system
- Significant figures and rounding
- Units conversion
- Basic statistics
- Problem-solving
- Volume, temperature, and pressure
- Creating and interpreting graphs of air quality data
- Calibration and slope
- Bias and precision
- Percent and percentile
- Exponents
- Working with Excel

Who Should Attend

This course is designed for tribal environmental personnel who have limited experience in air quality data computations. The course is a prerequisite for ITEP's *Air Pollution Technology* course and is recommended for those working on the technical side of air programs including: quality assurance/quality control, data management, and technical report-writing. Applicants should complete ITEP's *Introduction to Tribal Air Quality* or have basic familiarity with air quality topics before attending this course. Participants will complete a pre-course assignment.

Course Structure and Approach

This course takes a "learn-by-doing" approach. Brief lectures are interspersed with activities in which participants practice the skills introduced during the lectures and learn the application of math to air quality work. Each participant has access to a calculator and/or computer as needed during the practice sessions. There is homework each evening during the course.

Prerequisites: None.

NOTE: This course is equivalent to *Basic Source Assessment and Air Quality Computations*.





Indoor Air Quality in Tribal Communities

Level 1

Course Description

This entry-level course is designed to provide an understanding of common indoor air quality (IAQ) problems in tribal homes and schools. The course includes an overview of indoor air pollutants and their health effects, IAQ assessment in homes and schools, and tips for solving IAQ problems. There is hands-on practice with a comprehensive assessment tool used to identify IAQ problems.

Topics Include:

- Indoor air concerns in tribal communities
- Overview of home construction and fundamentals of building science
- Mold and its health effects
- IAQ pollutants and cancer
- Household hazardous materials
- Combustion products
- Comprehensive assessment tool for identifying IAQ problems
- Equipment for assessing IAQ
- Outreach: prevention of IAQ problems
- Collaboration and resources

Who Should Attend

There is no prerequisite for this course. Two applicants are accepted per tribe: one from the tribe's environmental department and one from the tribe's housing or health department. Preference is given to applicants who have an indoor air quality task in a grant work plan.

Course Structure and Approach

This course consists of lectures and a tribal case study, demonstrations, small-group activities, and a building walk-through.

Prerequisites: None

Introduction to Tribal Air Quality Level 1



Course Description

This is an entry-level course designed to provide an understanding of the importance of clean air for the protection of human health and the total environment.

Topics include:

- The concept of pH
- Criteria pollutants
- National Ambient Air Quality Standards (NAAQS)
- Air Toxics
- Using an air sampler for particulate matter
- Climate change
- Components of a tribal air program

Who Should Attend

This is a course for tribal environmental personnel who are new to air quality and are interested in learning the basics of air quality management. It is geared to the non-scientist and is appropriate for technicians or managers. This course is intended as a foundation for further study and is a prerequisite for several AIAQTP training courses.

Course Structure and Approach

This course is structured as an intensive training that uses multiple approaches to learning: lecture/discussion, laboratory, and small-group activities. There is also reading and writing assignments each evening during the course. The content is very basic and assumes the participant has no prior background in science or air quality management.

Prerequisites: None.

NOTE: This course is equivalent to *Air Quality in Alaska Native Villages*.



Air Quality in Alaska Native Villages Level 1

Course Description

This is an entry-level course for Native Alaskan environmental staff interested in air quality issues. The course provides an understanding of the importance of clean air for the protection of human health and the total environment. It also provides tribal air professionals with tools and ideas for conducting outreach on air quality issues.

Topics include:

- The concept of pH
- Criteria pollutants
- National Ambient Air Quality Standards (NAAQS)
- Air Toxics
- Bioaccumulation
- Air quality issues specific to Alaska
- Community environmental needs assessment
- Community-based education
- Establishing partnerships
- Developing an outreach program
- Making and evaluating poster and PowerPoint presentations

Who Should Attend

This is a course for tribal environmental professionals who are new to air quality and interested in learning the basics of air quality management and outreach. It is geared to the non-scientist and is appropriate for technicians or managers. This course is intended as a foundation for further study and fulfills a prerequisite for several AIAQTP training courses.

Course Structure and Approach

This course is structured as an intensive training that uses multiple modes of learning: lecture, discussion, and small-group activities. The course takes a “learn by doing” approach. There are evening homework assignments during the course. The content is basic and assumes the participant has no background in science or air quality management. There is a pre-course assignment that includes preparing a poster presentation about your tribal air program.

Prerequisites: None.



Air Pollution and Ecosystems Level 2



Course Description

This course focuses on the impact of air pollution on the total environment.

Topics Include:

- Transport of air pollutants
- Atmospheric deposition
- Pollutants of concern, including mercury, nitrogen and pesticides
- A regional air pollution study
- National programs and initiatives

Who Should Attend

This course is open to tribal environmental professionals who are interested in understanding how air pollutants impact ecosystems. Applicants should have completed a Level 1 ITEP air-quality course (see below) or have equivalent knowledge of basic air quality concepts.

Course Structure and Approach

This course consists of lectures, discussions, and small-group activities. Participants complete a pre-course assignment before attending the course.

Prerequisite: one of the following Level 1 courses:

- INTRO
- INTRO/COMP
- INTRO/OUTREACH
- *Air Quality in AK Native Villages*



Air Pollution Technology Level 2

Course Description

This rigorous, technical course is designed for tribal air quality program managers and technical personnel. It provides an overview of the science of air pollution and the techniques of air quality management.

Topics include:

- Emissions inventory
- Basic statistics and data analysis
- Air pollution meteorology
- Ambient air sampling and monitoring
- Basic dispersion modeling
- Air pollution control technology
- Air monitoring data management
- Internet resources

Who Should Attend

This course is designed for tribal air quality program managers and technical personnel who have successfully completed ITEP's *Introduction to Tribal Air Quality* and *Air Quality Computations* courses or who have sufficient academic training in science, mathematics, and/or engineering. It is a required course for those moving on to technical Level 3 training courses.

Course Structure and Approach

This is an intensive training course with large-group lectures and discussions, laboratory activities and demonstrations, computer and problem-solving exercises, and small-group work. There are evening homework assignments. Attendance at this course is contingent on completion of a pre-course module applicants receive with selection materials.

Prerequisites:

1. INTRO, INTRO/OUTREACH, INTRO/COMP, or *Air Quality in AK Native Villages*
2. COMP, INTRO/COMP, or *Basic Source Assessment/COMP*

NOTE: This course may be taken for academic credit (see page 8 for details).

Climate Change on Tribal Lands Level 2



Course Description

This course provides an understanding of the basic science of climate change and its impacts on human health and the environment. It provides ideas for action that can be taken on individual, community, and larger scales to address climate change.

Topics Include:

- Basic science of climate change
- Impacts of climate change on human health and the environment
- Mitigation strategies
- Adaptation strategies
- Community outreach
- Collaborative efforts to address climate change
- Climate change policy

Who Should Attend

This course is open to tribal environmental professionals interested in learning more about climate change and what tribes can do to address it. Applicants should have completed ITEP's *Introduction to Tribal Air Quality* course or have equivalent training in basic air quality topics.

Course Structure and Approach

This course employs a variety of instructional methods including lectures, discussions, and tribal case studies. Small-group activities reinforce lecture content. Applicants complete a pre-course assignment.

Prerequisite: one of the following Level 1 courses:

- INTRO
- INTRO/COMP
- INTRO/OUTREACH
- *Air Quality in AK Native Villages*



Management of Tribal Air Programs and Grants

Level 2

Course Description

This course provides an overview of the administrative and management skills needed to operate a tribal air quality program.

Topics include:

- The Clean Air Act and the Tribal Authority Rule (TAR)
- Elements in a typical tribal air program
- Developing a grant work plan
- Grant management & budgeting
- Personnel management
- Working with contractors
- Participation in the policy process
- Sources of funding for an air quality program

Who Should Attend

This course is designed for environmental professionals who are responsible for managing tribal air programs and grants. Applicants must have successfully completed ITEP's *Introduction to Tribal Air Quality* course or have equivalent background or experience.

Course Structure and Approach

This course is designed as a highly interactive training. There are lectures and discussions with visual aids, but the emphasis is on small-group work. Groups develop work plans, staffing strategies, and budgets for a hypothetical tribal air program.

Prerequisite: One of the following Level 1 courses:

- INTRO
- INTRO/COMP
- INTRO/OUTREACH
- *Air Quality in AK Native Villages*

NOTE: This course may be taken for academic credit (see page 8 for details)

Advanced Air Quality Program Management Level 3



Course Description

This course builds on ITEP's Level 2 course in air program management and delves more deeply into issues such as planning and participation in the policy process.

Topics include:

- Trend analysis
- Strategic planning for an air quality program
- Treatment as a State (TAS)
- Tribal Implementation Plan (TIP)
- Participation in the policy process

Who Should Attend

This course is open to tribal air quality managers who have successfully completed ITEP's *Management of Tribal Air Programs and Grants* course or have equivalent managerial experience. Preference is given to tribes who have a functioning air program and baseline ambient air monitoring data.

Course Structure and Approach

This course consists of lectures, discussion, and small-group activities and provides time for individual planning and writing.

Prerequisites:

1. INTRO, INTRO/COMP, INTRO/OUTREACH, or *Air Quality in AK Native Villages*
2. MGMT

NOTE: This course may be taken for academic credit (see page 8 for details).



Air Quality System (AQS) Level 3

Course Description

The rapid growth of tribal air quality programs has created a need for tribal personnel to adequately manage air quality data and report data in the proper format to U.S. EPA's Air Quality System (AQS). This course is intended to enhance tribal capacity in air quality data management and reporting.

Topics include:

- Components of AQS
- Site registration
- Standard reports
- Data formats
- Posting raw data
- Correcting data in AQS
- Live loading of data

Who Should Attend

This course is for tribal air quality professionals who have:

1. Successfully completed the ITEP courses listed below under "Prerequisites"
2. Submitted a draft Quality Assurance Project Plan (with a Network Design Plan) to EPA
3. Begun monitoring and collecting data for at least one criteria pollutant or for meteorological conditions
4. Successfully registered as users in the AQS system (guidance on this step will be provided with selection materials)

Course Structure and Approach

The course introduces tribal air professionals to AQS data-entry operations. Computer work involving hands-on data entry (upload), access, and retrieval is part of the training. There is some pre-course work, and participants are asked to bring data to upload.

Prerequisites:

1. INTRO, INTRO/COMP, INTRO/OUTREACH, or *Air Quality in AK Native Villages*
2. COMP, INTRO/COMP, or *Basic Source Assessment/COMP*
3. TECH
4. DATA MGMT



Gaseous Pollutant Monitoring Level 3

Course Description

This course provides a basic understanding of the gaseous criteria pollutants (CO, NO_x, SO₂, O₃) and their regulatory standards. Participants also learn to operate and maintain instruments.

Topics include:

- Characteristics of gaseous criteria pollutants
- Formation and transport of ground-level ozone
- NAAQS for gaseous pollutants
- Operation and maintenance of instruments
- Siting instruments
- QA/QC
- Data handling
- Potential uses of data for tribal communities

Who Should Attend

This course is open to tribal air quality managers and technicians. Preference is given to those who plan to monitor, or are in the early stages of monitoring, for one of the gaseous criteria pollutants. In addition, applicants must have completed ITEP's *Air Pollution Technology* (TECH) course or have equivalent education/experience.

Course Structure and Approach

This is an intensive course consisting of lectures, demonstrations, and hands-on practice.

Prerequisites:

1. INTRO, INTRO/COMP, INTRO/OUTREACH, or *Air Quality in AK Native Villages*
2. COMP, INTRO/COMP, or *Basic Source Assessment/COMP*
3. TECH

New Source Review (NSR) Level 3



Course Description

This course helps tribal air professionals understand the New Source Review (NSR) program and how it might impact individual tribes.

Topics include:

- Non-Attainment Area New Source Review (NAA-NSR)
- Prevention of Significant DeteriorationNSR (PSD-NSR)
- Minor New Source Review
- Implementation of New Source Review

Who Should Attend

This course is open to tribal air professionals who have successfully completed ITEP's *Management of Tribal Air Programs and Grants* (previously called *Air Quality Program Administration*). Applicants complete a pre-course assignment; instructions for the assignment accompany notices of selection for this course.

Course Structure and Approach

This is an advanced, interactive course. It includes lectures and discussions with visual aids as well as small-group activities. Some homework is assigned during the course.

Prerequisites:

1. INTRO, INTRO/OUTREACH, INTRO/COMP, or *Air Quality in AK Native Villages*
2. MGMT or ADMIN



Tribal Data Toolbox

Level 3

Course Description

This course provides training on the Tribal Data Toolbox, a free, stand-alone Microsoft Access database designed specifically for tribal air programs. The Toolbox can store and manage all air monitoring data, including criteria pollutants (both manual and continuous methods); meteorological data; QC and audit data; and administrative information such as personnel, site information, and equipment tracking. The Toolbox is capable of generating AQS data files and a variety of reports and charts.

Topics include:

- Entering and modifying personnel, site, and equipment data
- Entering and using Quality Control (QC) data
- Importing continuous and manual (filter) method data files
- Importing meteorological data files
- Qualifying (flagging) and invalidating data
- Generating reports and charts both as summary information and to assist in interpreting data
- Generating AQS-formatted files from raw data files

Who Should Attend

This course is designed for tribal environmental professionals who are currently monitoring or collecting data for at least one criteria pollutant or for meteorological conditions. This is an advanced course; applicants should have completed ITEP's *Air Pollution Technology (TECH)* course before attending. *ITEP's Air Monitoring Data Management* course is also recommended as preparation for the Toolbox training.

Course Structure and Approach

This course includes extensive hands-on computer exercises and activities as well as lectures. Participants are asked to bring copies of recent data sets for use during class activities. Participants are expected to have an intermediate-level working knowledge of Microsoft Windows. Although the course is structured around a Microsoft Access database, the database is form-driven and user-friendly; therefore, no previous Access experience is necessary.

Prerequisites:

1. INTRO, INTRO/OUTREACH, INTRO/COMP, or *Air Quality in AK Native Villages*
2. COMP, INTRO/COMP, or *Basic Source Assessment/COMP*
3. TECH