

**Tribal Professional Development Program – July 1, 2024 through June 30, 2025**

**Institute for Tribal Environmental Professionals**

**American Indian Air Quality Training Program**

The professional development course schedule for Fiscal Year 2025 (TPD25) is described in the following table.

<b>Course Title</b>	<b>Level</b>	<b>Location / Platform</b>	<b>Month / Year</b>
<b>In-person courses</b>			
Introduction to Air Quality in Tribal Communities	Entry-level	Flagstaff, AZ	July 2024
Tribal Air Grants and Program Management	Mid-level	Quapaw, OK	August 2024
Indoor Air Quality	Entry-level	Albuquerque, NM	September 2024
Fundamentals of Air Monitoring	Mid-level	TAMS	October 2024
Air Quality in Alaskan Native Communities	Entry-level	Fairbanks, AK	November 2024
PM 2.5 Air Monitoring	Mid-level	TAMS	December 2024
Air Quality Outreach & Education in Tribal Communities	Entry-level	TAMS	January 2025
Air Pollution Science & Technology	Mid-level	Phoenix, AZ	February 2025
Project Planning, QAPPs, and Grants for Alaska	Mid-level	Anchorage, AK	March 2025
Air Quality Data Management	Mid-level	TAMS	April 2025
Conference workshop at NTFAQ	Varies	NTFAQ	May 2025
<b>Scheduled Office Hours</b>			
Emission Inventories		Zoom	TBD
Grants		Zoom	Monthly
Outreach and Education		Zoom	Monthly
Indoor Air Quality		Zoom	Monthly
TAMS Center (monitoring support)		Zoom	Monthly
<b>Self-Paced Online Courses</b>			

Building Performance: Improving IAQ in Cold Climates	Entry-level	Online	Ongoing
Building Performance: Improving IAQ in Warm Climates	Entry-level	Online	Ongoing
Residential Building Science Review	Entry-level	Online	Ongoing
Radon Fundamentals	Mid-level	Online	Ongoing
Quality Assurance Fundamentals	Entry-level	Online	Ongoing
Writing a Quality Assurance Project Plan (QAPP)	Mid-level	Online	Ongoing
Emissions Inventory – Fundamentals	Mid-level	Online	Ongoing
Emissions Inventory – Advanced	Advanced-level	Online	Ongoing
Air Quality Planning for Wildland Smoke	Mid-level	Online	Ongoing
After a Wildfire: Health & Safety Considerations	Mid-level	Online	Ongoing
Introduction to Air Quality	Entry-level	Online	Ongoing
Managing Road Dust	Mid-level	Online	Ongoing
Woodstove Management & Air Quality	Mid-level	Online	Ongoing

## Professional Development Descriptions

### In-Person Courses

<b>Introduction to Air Quality in Tribal Communities</b>	This entry-level professional development course is designed for tribal environmental staff who are <i>NEW</i> to air quality. The course was recently updated with new content. This will be a highly interactive training will include hand on activities, presentations, and group work. Participants are encouraged to bring a laptop to the training. The course will consist of a pre-course assignment, a live pre-course webinar, a live 3-day course and follow up assignments. Participants will develop a basic understanding of air quality, including the Environmental Protection Agency (EPA) regulatory framework and beyond. Develop or improve a tribal air quality program plan and identify resources (financial and informational) to implement the program.
<b>Tribal Air Grants &amp; Program Management</b>	This mid-level professional development course is designed for environmental professionals who are responsible for managing tribal air programs and grants. In this interactive training, groups develop strategic plans and management skills for a tribal air program, including grant management. After completing this course participants will be able to list key concepts of the Tribal Authority Rule (TAR); list several elements in a typical Tribal Air Program; develop a budget for an air program/work plan; explain key concepts of grant management and identify ways to improve your reporting.
<b>Indoor Air Quality in Tribal Communities</b>	This entry-level professional development course provides an understanding of common indoor air quality problems in tribal homes and schools. After completing this course participants will be able to describe health concerns related to indoor air quality; identify factors responsible for IAQ problems in homes, with emphasis on building science, ventilation and pressure imbalances; apply methods to investigate home IAQ problems and suggest solutions to IAQ problems in tribal homes; use

	<p>outreach materials to minimize IAQ problems in existing, new, and reconstructed homes; use EPA's Tools For Schools to improve indoor air quality in schools; develop a plan for IAQ outreach in tribal communities.</p>
<b>Fundamentals of Air Monitoring</b>	<p>This mid-level professional development course is structured as an overview of a typical tribal air monitoring project and will help both new staff and experienced technicians understand the components of initiating and maintaining a successful air monitoring project from a site operator's perspective. This course provides tribal environmental professionals with a basic understanding of how to develop and conduct an air monitoring project. This course is designed as an overview and does not include exhaustive detail of each topic. The course focuses on criteria air pollutants, as well as monitoring requirements for those seeking National Ambient Air Quality Standard (NAAQS) designations from their monitoring projects. It includes information about meteorological monitoring and air toxics. Air monitoring equipment will be available for hands-on activities.</p>
<b>PM 2.5 Monitoring</b>	<p>This is advanced-level professional development course that will provide tribal environmental professionals with a comprehensive understanding of the operation and maintenance of PM2.5 particulate air monitoring equipment, continuous and filter-based. The theory of operation of Federal Equivalent Method and Federal Reference Method equipment will be presented. Requirements for collecting NAAQS comparable data will be provided. Emphasis will be on the hands-on activities with various models of PM2.5 air monitoring equipment will be provided. Equipment tentatively includes Met One Equipment (BAM 1020, BAM 1022, EBAM Plus, EBAM), Teledyne API Equipment (T640 and T640X), and Thermo Fisher Equipment (Partisol 2000i).</p>
<b>Air Quality Outreach &amp; Education in Tribal Communities</b>	<p>This entry-level professional development course is designed to prepare tribal staff to conduct a variety of education and outreach activities that will help tribal members increase the public awareness about environmental issues and increase tribal members' abilities to make informed decisions that improve environmental quality. Tribal staff will learn that environmental education is a process that allows individuals to explore environmental issues, engage in problem solving, and take action to improve the environment. As a result, individuals develop a deeper understanding of environmental issues and have the skills to make informed and responsible decisions. Course participants will experience environmental education tools and curricula that can be used in formal and informal educational settings.</p>
<b>Air Pollution Science &amp; Technology</b>	<p>This mid-level professional development course provides an overview of the science of air pollution and technical aspects of air quality management. After completing this course participants will be able to characterize sources of air pollutants of concern to tribes; describe components of an emissions inventory including data types and procedures; compare methods of assessing ambient air quality including monitoring and modeling; discuss concepts related to data management; use basic statistics as a tool for data analysis; associate meteorological conditions with air quality; and describe types of mobile source emissions.</p>
<b>Air Quality Data Management</b>	<p>This mid-level professional development course provides an understanding of the skills needed to successfully manage, interpret, report, and present air quality data. This course will demonstrate processes, documentation, tools and the experiences of tribal professionals who are responsible for collecting, reviewing and reporting tribal data through a review process (validation and other QA tasks) to a</p>

	final package that is ready for reporting through multiple venues (AQS, AIRNOW, Outreach to Tribal Leaders/decision-makers).
<b>Alaska Courses</b>	
<b>Air Quality in Alaskan Native Communities</b>	This entry-level professional development course is designed for environmental staff from Alaskan Native Communities who are interested in air quality issues. The content is basic and assumes the participant has no background in science or air quality management. The course provides an understanding of the importance of clean air (outdoors and indoors) for the protection of human health and the total environment. Participants are introduced to the criteria pollutants, their sources and effects; the purpose of the NAAQS; air toxics, their sources and effects; climate change; trash burning; road dust; wildland smoke; indoor air quality and other possible activities of a tribal air quality program.
<b>Project Planning, QAPPs, and Grants for Alaska</b>	This mid-level professional development course is designed for tribal environmental staff who are responsible for managing air quality projects in Alaskan Native Villages. After completing this course, participants will be able to list important considerations for project planning; create a work plan with outputs and outcomes; develop a matrix of tasks, due dates and responsible persons; understand the importance of a quality assurance project plan (QAPP); and start developing a QAPP.
<b>Scheduled Office Hours</b>	
Regularly scheduled Zoom Office Hours. During these 1 hour sessions, participants will have the opportunity to engage with AIAQTP/TAMS Center professional staff, EPA and representatives of other tribes, ask questions, and maybe learn something new. Current office hours are scheduled for Grants, Indoor Air Quality, Education and Outreach, and TAMS Center Air Monitoring.	
<b>Webinar (Based on Demand)</b>	
Webinars on specific topics will be created based on demand. Previous topics included: Data Management, Sensors, Met Monitoring, Data Loggers, QREST, the Clean Air Act, Grants, Emissions Inventories, QAPPs, Indoor Air Quality, Radon, Healthy Cleaning and many Tribal Case Studies. This feature will allow AIAQTP to highlight tribal successes and share with tribes other content not currently in our curriculum. All webinars have been and will continue to be archived and easily accessible. Some webinars will be formatted into future self-paced online courses.	
<b>Conference Workshops</b>	
Staff will host workshops at the <i>National Tribal Forum on Air Quality (NTFAQ)</i> and the <i>Alaska Tribal Conference on Environmental Management (ATCEM)</i> . This feature will allow AIAQTP to engage and share with tribes content not currently in our curriculum.	
<b>Self-Paced Online Courses</b>	
<b>Residential Building Science Review</b>	This entry-level professional development online course provides tribal environmental professionals with a review of basic building science principles. After the completion of this course, participants will be able to describe how a home functions as a dynamic system; and explain 3 principles of building science. This course will take approximately 4 hours to complete.
<b>Building Performance: Improving IAQ in Cold Climates</b>	This entry-level professional development course is designed as an introduction to building science principles with an emphasis on cold climates. After the completion of this course, participants will be able to explain the principles of building science; describe how the home responds like a “living system;” and explain what to look for

	during an IAQ home assessment. This course will take approximately 8 hours to complete.
<b>Building Performance: Improving IAQ in Warm Climates</b>	This entry-level professional development course is designed as an introduction to building science principles with an emphasis on warm climates. After the completion of this course, participants will be able to explain the principles of building science; describe how the home responds like a “dynamic system;” manage moisture for a healthy home, discuss cooling and ventilation in a hot summer climate, and explain what to look for during an IAQ home assessment. This course will take approximately 10 hours to complete.
<b>Radon Fundamentals</b>	This mid-level professional development course introduces participants to radon and how tribes are addressing it. After the completion of this course, participants will be able to explain what radon is; describe the potential health effects from exposure to radon; describe how radon enters a home; recognize which radon mitigation systems are effective for different types of building structures; locate different types of testing devices available for testing indoor radon levels; locate additional training that will enable tribal staff to become certified in radon testing and radon mitigation; initiate the development of a tribal radon program; locate funding sources for radon testing and mitigation. This course will take approximately 7 hours to complete.
<b>Quality Assurance Fundamentals</b>	This mid-level professional development course is intended for tribal environmental professionals as an introduction to quality assurance. Participants will learn about Quality Assurance (QA) for a project and why it is important; explain the terminology that is used in QAPPs; describe QA in common sense terms; locate helpful resources, materials, and people to ensure quality systems; identify basic principles of data management; list the required elements for a category 4 QAPP (as categorized by US EPA). This course will take approximately 12 hours to complete.
<b>Writing a Quality Assurance Project Plan (QAPP)</b>	This advanced-level professional development course is for tribal professionals who are either writing a new QAPP or updating an existing QAPP. An outline of a QAPP is provided with all 24 elements, page headers, and a table of contents. This course provides examples documents and resources for the following pollutants: ozone with a continuous method, PM 2.5 with a continuous method, PM 2.5 with a filter method, PM 10 with a continuous method, meteorological monitoring and radon. After the completion of this course, participants will be able to draft a QAPP.
<b>Emissions Inventory – Fundamentals</b>	This mid-level professional development course guides participants through modules with assignments that must be completed before a participant can progress from EI-Fundamentals to EI-Advanced. Assignments guide participants through the steps of a Level 4 EI. Instructors are available to assist participants as needed or desired. After completion of this course, participants will be able to collect county-level data from NEI and import into TEISS; identify facilities from a TEISS map; and write a Level 4 EI report. This course will take approximately 50 hours to complete.
<b>Emissions Inventory – Advanced</b>	This advanced-level professional development course guides participants through modules with assignments that guide participants through the steps of a Level 3 EI. Instructors are available to assist participants as needed or desired. After completion of this course, participants will be able to gather and enter emissions data into TEISS for all sources that impact the tribe’s air quality; perform additional calculations; and write a Level 3 EI report. This course will take approximately 120 hours to complete.

<b>Air Quality Planning and Wildland Smoke</b>	This mid-level professional development course is for tribal staff who have some background in air quality and want to learn about the impacts of wildland smoke on their communities and how to minimize exposure. The in-person course provides hands-on learning opportunities that reinforce the concepts presented in the online self pace course, which is a pre-requisite to the in person training. Participants in this course complete four modules (Wildland Smoke and Health Effects, Wildland Smoke Community Outreach, Tribal Case Studies, and New Technology and Monitoring) and a quiz. After completing this course participants will be able to understand how to plan for wildland smoke and what to look for during a wildland smoke event.
<b>After a Wildfire: Health &amp; Safety Considerations</b>	This mid-level professional development course is for tribal staff who have some background in air quality and want to learn about post wildfire safety considerations for "Indoor Air Quality" and a how to "Return Safely." This online course is equivalent to 0.7 CEUs and requires approximately 7 hours of total learning time. After completing this course participants will be introduced to monitoring Air Quality Index (AQI) during and after a wildfire to make informed safety and health decisions and to communicate risk with your community. The composition of wildfire smoke, particle distribution in indoor environments, and how wildfire smoke poses potential hazards on indoor environments. The investigation process, sampling, and analytical methodologies used to evaluate smoke impact in and outside of structures. The standard of care for cleaning/restoring structures, contents, and personal property to pre-loss conditions and verify the effectiveness of cleaning to prepare for re-occupancy.
<b>Introduction to Tribal Air Quality</b>	This entry-level professional development course provides an understanding of the importance of clean air for protection of the total environment as well as human health. It is appropriate for tribal environmental personnel who are new to air quality and are interested in learning the basics of air quality management. The content is basic and assumes that the participant has no prior background in science or air quality management. Participants are introduced to the concept of pH as it relates to air quality; the criteria pollutants, their sources and effects; the purpose of the NAAQS; air toxics, their sources and effects; climate change; indoor air quality and other possible activities of a tribal air quality program.
<b>Managing Road Dust</b>	This mid-level professional development course focuses on tribal environmental and transportation staff managing road dust, resulting in improved air quality. Presenters from US Environmental Protection Agency, University of Alaska, Alaska Department Environmental Conservation, Alaska Native Tribal Health Consortium and the Institute for Tribal Environmental Professionals provide information to help tribal environmental and transportation staff create community partnerships to: assess current roads, develop community education messages leading to behavioral changes, develop plans to improve road design, consider appropriate use of dust suppressants, continue with air quality assessments, create a dust management plan, and identify potential funding sources.
<b>Woodstove Management</b>	This mid-level professional development course focuses on tribal environmental staff managing woodstoves. This online course will increase participants' understanding of wood smoke's health impacts, cultural perspectives of wood-burning, and safe woodstove operation & maintenance. Participants will also obtain ideas, publications, and resources for conducting outreach for woodstoves operation and maintenance within their own tribal communities. Also, participants will learn about the recently certified Navajo Hybrid stove approved for burning coal and wood.

