Conveniently scheduled to coincide with A&WMA’s 108th Annual Conference & Exhibition in Raleigh, NC, the following list of courses will be offered on Sunday, June 21 and Monday, June 22. Don’t miss out on this opportunity to enhance your professional skills!

For more information, complete course details, instructor bios, prerequisite information, and updates, visit the conference Web site at ace2015.awma.org.

**NEW FOR 2015!**

**Christelle Escoffier, Ph.D., independent air quality specialist; and Irene Lee, senior scientist, Exponent Inc., will be offering the course: AIR–173: CALPUFF Introductory Course**

Dr. Escoffier has over 15 years of experience in the fields of meteorological and air quality studies using atmospheric dispersion models such as CALPUFF. She has conducted long-range air quality impact studies for BART assessments and PSD compliance and has also conducted near-field applications in simple and complex meteorological situations to assess compliance with air quality standards worldwide for aluminum smelters, power plants, and oil and gas facilities.

Lee has over 10 years of experience in meteorological and air quality modeling. She has performed numerous air quality impact studies worldwide using atmospheric dispersion models such as CALPUFF. Lee is also a primary contributor to the CALPUFF modeling system having developed numerous software packages, including the new CALApps graphical user interface (GUI) and Fortran processors.

**Shawn Dolan, president, and Steve Rasmussen, president, both with Virtual Technology & Green Wire Technical Solutions, will be offering the course: CTAIR–145: EPA Alternative Method 082 Certification and Training**

Dolan has more than 30 years of experience in information technology and information management. His air quality knowledge combined with his technology experience led to the creation of the Digital Opacity Compliance System Second Generation, which, in turn, championed the ASTM D7520, and its partner EPA Alternative Method 082.

Rasmussen previously served with the U.S. Air Force and managed the Air Quality Program at Hill Air Force Base in Utah for over 20 years. Additionally, he was responsible for the development of EPA Alternative Method 082. The first approved alternate test method to EPA Method 9 in 30 years.

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**SUNDAY, JUNE 21**

**AIR–295: Air Quality Engineering**

**INSTRUCTOR:** Mark Rood, Ph.D., BCEEM, Ivan Racheff Professor of Environmental Engineering, University of Illinois, Urbana–Champaign

Participants will study air quality engineering fundamentals pertaining to the outdoor ambient environment, including background information that describes air pollutants, application of the ideal gas law, impacts of air pollutants, and air quality regulations for sources and the ambient environment. Overall methods to reduce the generation of emissions will be described and methods commonly used to selectively remove particulate matter and gases from gas streams will be discussed. Additionally, meteorology and dispersion of air pollutants emitted from point, line, and puff sources are described to predict concentrations of outdoor air pollutants at downwind receptors. There are no prerequisites for this course; however, having a scientific or engineering background would be beneficial.

**AIR–299: AERMOD Air Dispersion Modeling**

**INSTRUCTORS:** Jesse Thé, Ph.D., P. Eng, Shawn Dolan, president, and Steve Rasmussen, president, both with Virtual Technology & Green Wire Technical Solutions.

The course will provide attendees with a full understanding of the AERMOD modeling system by balancing theory with hands-on, real-world case studies. At the end of the course, participants should be able to understand the basics of regulatory air dispersion modeling and use screening and refined models for permit applications and risk assessment. There are no prerequisites for this course; however, a working knowledge of Microsoft Excel would be beneficial.
EMGM–285: Environmental Health Risks and Hazard Risk Calculations

INSTRUCTORS: Ryan Dupont, Ph.D., professor, civil and environmental engineering, Utah State University; and Lou Theodore, Eng.Sc.D., professor, chemical engineering, Manhattan College

All types of environmental-related issues fall under the environmental risk umbrella. This course will provide attendees with an understanding of the principles of environmental risk and associated risk assessment calculations. Following a discussion of regulations, emergency planning and response, and applicable principles, the presentations will key on risk assessment calculations associated with health risk, hazard risk, and combined health/hazard risk scenarios. Topic discussions will be complimented with numerous illustrative examples and real-world case studies that include domestic, industrial, utility, and natural disaster-related situations. An undergraduate science or engineering degree is required.

EMGM–345: ISO 14001: 2015: Meeting the Requirements of the New Standard

INSTRUCTOR: Yogendra Chaudhry, Ph.D., EP, CRSP, director, Centre for Sustainable Development, Ketek Group Inc.

The ISO 14000 series of standards address various aspects of environmental management. These standards provide practical tools for organizations looking to identify and control their environmental impact and continually improve their environmental performance. ISO 14001 sets out the criteria for an environmental management system and provides a framework that an organization can follow to set up an effective environmental management system. The standard is currently under review and it is expected that the new version of the standard will be released in 2015. This course will discuss the proposed changes and strategies to be prepared to meet the requirement of new versions of the standard and how to implement these changes in your existing environmental management system.

WASTE–245: Innovative Strategies and Technologies for Contaminated Site Remediation

INSTRUCTOR: Kevin Finneran, Ph.D., associate professor, environmental engineering, Clemson University

This course will provide an introduction to site remediation strategies and technologies that will be applicable to a number of different contaminants, including chlorinated solvents, petroleum hydrocarbons, metals and metalloids, radionuclides, pesticides, and explosives/energetics. It is appropriate for both new learners and those with experience in site remediation. The course will focus on innovative and emerging tools for site characterization and remediation, while comparing and contrasting these “cutting-edge” practices with classical remediation techniques. The course will discuss how to design laboratory experiments in support of field remediation efforts, and to analyze and interpret molecular biology data, which are commonplace in today’s environmental remediation efforts. A take-home course workbook will be provided to all participants that will summarize the course sections, with practice questions and case studies, when applicable.

MONDAY, JUNE 22

AIR–173: CALPUFF Introductory Course

INSTRUCTORS: Christelle Escoffier, Ph.D., independent air quality specialist; and Irene Lee, senior scientist, Exponent Inc.

This course will provide an introduction to the CALPUFF atmospheric dispersion modeling system, an advanced non-steady-state meteorological and air quality modeling system. It is an open source code recommended by the U.S. Environmental Protection Agency for assessing long-range transport of pollutants and their impacts on Federal Class I areas and on a case-by-case basis for near-field applications involving complex meteorological conditions. The course will focus on theoretical components of meteorological and dispersion modeling, new advancements and new features in the modeling system, and a new graphical user interface (CALApp).

AIR–240: Achieving Compliance for Combustion Processes via Air Pollution Control

INSTRUCTOR: Tom McGowan, president and founder, TMTS Associates Inc.

The course will focus on the theory and operation of thermal systems and air pollution control. The interactions between the two are covered in detail. Attendees must know and understand both the “front end” combustion system and “back end” air pollution control systems to comply with myriad regulations and promote safe and economical operation. Part of the value of this course is the practical experience of the presenter and his knowledge of what works and what does not. Case studies will be used for illustration purposes.

CTAIR–145: EPA Alternative Method 082 Certification and Training

INSTRUCTORS: Shawn Dolan, president, and Steve Rasmussen, president, both with Virtual Technology & Green Wire Technical Solutions

Become a certified U.S. Environmental Protection Agency (EPA) ALT 082 Visible Emission Operator, and get six months of DOCS II Software as a Service (SaaS) free with registration. Students will learn how to observe visible emissions using digital cameras and common mobile technology devices. Bring your smart phone/tablet/laptop and leave certified and ready to preform EPA ALT 082 Visible Emission Observations. The course will cover the basics of visible emission observation; how to properly frame and position digital cameras to record visible emissions; the required data for defendable opacity determinations; how to identify stationary and fugitive dust sources; imagery requirements; health concerns from visible emissions; and the most up to date legal interopelation and decisions.


INSTRUCTOR: David Elam, Jr., CIH, CMQ/OE, PMP, consultant, TRC Environmental Corp.

Projects are how environmental service work gets done. While an educational background may prepare the environmental professional for the technical aspects of the work, one is typically expected to learn project management skills “on the job,” a situation that can end in disappointment for both the environmental professional and the project sponsor. Fortunately, project management skills can be learned, creating successful environmental project managers and sponsoring organizations. This course will help environmental professionals better serve their organizations and advance their careers through the development and improvement of project management skills. The course format will consist of presentations and exercises. Each participant will receive a course notebook containing a copy of presentation materials; no prerequisites are required.

Visit the conference Web site at ace2015.awma.org for more updates.