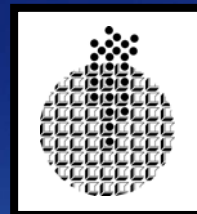


# CASANZ Training Courses 2010



CLEAN AIR SOCIETY OF  
AUSTRALIA AND NEW ZEALAND  
ABN 83 608 131 901

## TAPM Version 4 – Latest Release

The latest version of TAPM released in October 2008 incorporates a number of significant enhancements in the meteorology including low wind parameterisation, new land surface scheme, inclusion of zero-plane displacement height, enhanced turbulence scheme, and various other changes to improve model performance. This training course will provide training in TAPM with a focus on model configuration and inputs; model outputs and interpretation; and hands-on use involving case-studies. All participants will get practice with the model either individually or if preferred in pairs.

COURSE DATE: 2011  
DURATION: 1 day  
COST: \$900\*

## Meteorology for Air Dispersion

This course covers the fundamentals of meteorology including the essentials of atmospheric physics, such as wind variability, atmospheric turbulence, vertical wind and temperature profiles, and boundary layer structure and behaviour. The influence of meteorological variables is discussed including sensitivity analysis of stability classes and mixing height and the importance of wind speed and direction. Discussions cover inversions and stable layers, fumigation, sea-land interfaces, complex terrain interactions, data requirements for modelling, data sets, and locating measurement stations and instrumentation.

COURSE DATE: To be advised  
DURATION: 1 day  
COST: \$700\*

## Ausplume

Beginner and advanced courses in Ausplume increase your understanding of the fundamentals of air dispersion modelling and the applications and limitations of Ausplume. The dispersion model prepared by the Environment Protection Authority of Victoria has been upgraded. Enhancements include model improvements in estimating the impact of building influences, inclusion of particle deposition and dispersion, the ability to enter variable emission rates and background concentration files, and the integration of statistical programs and the BPIP model with Ausplume's graphical user interface.

COURSE DATE: 2011  
DURATION: 1 day  
COST: \$900\*

## Calpuff

Calpuff is a regulatory *Guideline* model recommended by the US EPA for applications including long-range transport, and on a case-by-case basis for near-field applications such as coastlines, calm winds, stagnation, fumigation, complex terrain and recirculation situations. The model includes the Prime algorithm for building downwash and is suitable for source-receptor distances ranging from fence-line applications (tens of meters) to several hundred kilometres. The course will provide a brief overview of the theory behind the model, but will primarily focus on providing sufficient understanding to effectively use the model through hands-on applications.

COURSE DATE: Introductory – To be advised - 2011                      Advanced – To be advised - 2011  
DURATION: 3 days / 1 day  
COST: \$1,900\* / \$900\*

## Introduction to Air Quality Issues

This course will cover the basic science associated with: the sources and effects of air pollutants, monitoring air pollution, meteorology, emission inventories, dispersion modelling, atmospheric chemistry and industrial discharges. The focus of the course will be on the science behind these issues. The laws, policy and plans which are used to manage air quality will not be discussed in any detail. The course will provide an interactive, fun, challenging and informative learning experience.

COURSE DATE: Adelaide, February, 2010                      To be advised  
DURATION: 1 day (Abridged version)                      2 Day course  
COST: \$825\*                      \$1650

# CASANZ Training Courses - 2010

## Introductory Stack Testing

This course covers measurement of the concentration of gaseous and particulate emissions from stack sources. The course is suitable for beginners or those with some experience and consists of two days of lectures and practical hands on training. Participants will be trained in source testing requirements, particulate dynamics, isokinetic sampling, sampling trains, gas analysis instruments, velocity measurement, calculation procedures and calibration.

COURSE DATE: New Zealand / Melbourne, Late 2010  
DURATION: 2 days  
COST: \$1,450\*

## Industrial Odour Control

This course provides training in odour science, regulation and control. The program includes odour perception, physiology, measurement, regulatory criteria, modelling, community consultation and odour surveys. Control methods discussed include ventilation system design, incineration and thermal oxidation, chemical wet scrubbing, adsorption and bioscrubbing. Case studies and site visits are used to illustrate applications and supplement lectures and discussion forums.

COURSE DATE: Sydney, April 2010  
DURATION: 2 days  
COST: \$1,400\*

## Aermod

This course provides detailed instruction into the history of Aermod and provides instruction in the background, technical details and will involve at least 50% hands on computer training, using case studies from Australia and New Zealand. Aspects to be covered include its role and place among other models; formulation including terrain, downwash, deposition, and meteorological processing; as well as implementation issues.

The course will be presented by Jeff Connors from the USA who is currently undertaking an evaluation of AERMOD and CALPUFF for Low Wind Speed Dispersion conditions for the American Petroleum Institute.

COURSE DATE: To be advised  
DURATION: 1.5 days  
COST: \$1,175\*

## Introduction to Indoor Air Quality

This one day training course provides an overview on current Australian and international standards and guidelines for indoor air quality. This course has a practical hands-on approach and will teach IAQ essential to consultants working or wanting to work in this field. The course will show how to measure and interpret a range of standard IAQ pollutants. This will include detailed explanations from experienced IAQ experts on individual pollutants such as CO<sub>2</sub>, VOCs and other gases, particles, and microbials. The health effects and behaviour of these pollutants in indoor environments are discussed in detail. The practical hands-on training will emphasize the use of the latest IAQ monitors and meters currently being used in the industry, plus training on how to interpret the resultant data. The participants will acquire the skills and confidence required to conduct IAQ assessments in all but emergency or extreme situations.

COURSE DATE: 2011  
DURATION: 1 day  
COST: \$700\*

## Hazardous Air Pollutants Course

The course will present standardized sampling procedures for ambient air monitoring of air toxics/HAPs as outlined in USEPA methods. It will address air toxic regulations, developing monitoring plans and protocols, sampling for volatile organics, acid aerosols, (semi-volatiles), and particulate matter. Attendees will be provided with the knowledge to: (1) understand the process for selecting and characterizing HAPs in an urban or community setting; (2) develop and implement a HAPs program involving design and operation of sampling methods for trace organics and inorganic constituents; and (3) operate a monitoring network as part of remediation activities at abandoned waste sites.

COURSE DATE: Melbourne, April 2010  
DURATION: 2 days  
COST: \$1,400\*

# CASANZ Training Courses - 2010

## Air Pollution Control

This course provides industry, regulatory staff and consultants with an understanding of the most suitable methods for reducing emissions of various pollutants including odours, dust and fumes and hydrocarbons. A range of industries and processes such as oil and gas combustion and waste incineration are covered in the course. Cleaner production processes, treatment technologies, collectors, electrostatic precipitators and fabric filtration are discussed.

DATE AND LOCATION: Late 2010  
DURATION: 2.5 days  
COST: \$1,600\*

## Ambient Air Quality Monitoring

This course provides base training aimed at developing skills in either ambient air quality monitoring or source emission monitoring. It includes an introduction to Australian (and New Zealand) Standards ISO requirements associated with ambient air quality monitoring and an overview of ambient air monitoring techniques. The course covers measurement technologies for particulates and gases, units, gas flow, uncertainty, quality assurance, calibration, monitoring networks, meteorological measurements, site selection, integrated systems ozone, open path monitoring, suspended particulates and heavy metals and data acquisition.

DATE AND LOCATION: Late 2010  
DURATION: 2.5 days  
COST: \$1,600\*

## Ambient Air Monitoring Standards

This course covers the technical details of ambient air quality monitoring, and the application of the associated Australian (and New Zealand) Standards, not covered in the "Ambient Air Quality Monitoring" course. It includes an overview of ANZ, ISO, USEPA, BS, and other standards for meteorological, particulate, gaseous and related sampling. The course answers questions regarding the limitations of standards, their assessment and monitoring.

DATE AND LOCATION: 2011  
DURATION: 2 days  
COST: \$1,400\*

## Advanced Stack Testing

This course builds on the introductory course and USEPA methods 1-5. It discusses high accuracy laboratory and sampling techniques with specialised recovery methods. Basic QA/QC for each technique, computations and ideal sampling scenarios and applications are covered, including demonstrations in the use of sampling trains for dioxins, semi volatiles, PAHs, VOCs, hexavalent chromium and mercury.

COURSE DATE: Late 2010  
DURATION: 3 days  
COST: \$1,850\*

For further information on CASANZ training courses, please contact:

Vicki Callaway  
CASANZ Training Activities Co-ordinator  
Tel: +61 3 9751 0393  
Email: [admin@casanz.org.au](mailto:admin@casanz.org.au)

Andrew Martin  
Chair, Training Activities Executive  
Tel: +61 7 3810 6313  
Email: [TAE@casanz.org.au](mailto:TAE@casanz.org.au)

*\*Training course costs may vary depending on the location and number of attendees. All course costs are inclusive of GST. The information contained is accurate at the date of publication (February 2010) and may be subject to change. Details will be confirmed on the CASANZ website approximately two months before the course is due to run.*

© Clean Air Society Training Program 2010

ABN: 83 608 131 901  
70 Olinda-Monbulk Road, Olinda, Vic, 3788, Australia  
Tel: +61 3 9751 0393 Fax: +61 3 8677 1775 Email: [admin@casanz.org.au](mailto:admin@casanz.org.au)