



3-DAY AERMOD COURSE OUTLINE

Day 1

- Physics of air dispersion (turbulence, meteorology, receptors, topography, plume rise, building downwash, deposition)
- Hands-on meteorological data processing
- Overview and data input for AERMOD and BPIP models
- Coordinate systems and maps
- Hands-on BPIP
- Hands-on AERMOD
- Terrain processing
- Hands-on AERMAP
- Results analysis

Day 2

- Atmospheric physics – planetary boundary layer theory and turbulence
- Hands-on “DIY” case
- Special topics
- Air dispersion modeling challenges
- Detailed case study
- Multi-chemical runs
- Wet and dry deposition

Day 3

- Modeling options for conversion of NOX to NO2 – theory and case study
- Odor modeling – theory and case study
- Road traffic modeling – theory and case study
- Flare sources – theory and case study



2-DAY CALPUFF COURSE OUTLINE

DAY 1

- Introductions
- Dispersion, stability class, and mixing height
- Puff versus Plume models
- Terrain and land use pre-processing (GEO.DAT)
- Met station data pre-processing & WRF/MM5 met data
- Hands-on CALMET
- Wind Field QA - how to read/modify a wind field
- Basic parameters for a CALPUFF run
- CALPOST post-processing options
- Hands-on CALPUFF and CALPOST modeling

DAY 2

- Review of Day 1
- Turbulence, plume rise, and dispersion
- Chemical transport and transformations
- Complex terrain and coastal
- Hands-on complex terrain
- Hands-on coastal modeling
- Odor modeling and other unique instances
- Hands-on odor modeling
- Hands-on CALPUFF run using your own site
- Dealing with large projects – CALSUM post-processor
- Hands-on CALSUM



Lakes Environmental Software
www.webLakes.com/training/