

University of Cincinnati Environmental Training Institute

Sumana U. Keener, Ph.D., P.E., Q.E.P.

**Department of Civil and Environmental Engineering
University of Cincinnati**

University of Cincinnati Environmental Training Institute

- Established as an air training academy in 1992, after ~20 years of being an APTI area training center
- Delivered 4-18 APTI courses each year to over 2,000 participants since 1992

Classroom Attendance

<u>Fiscal Year</u>	<u>Attendance</u>
1992-1993	329
1993-1994	247
1994-1995	303
1995-1996	225
1996-1997	99
1997-1998	135
1998-1999	133
1999-2000	149
2000-2001	74
2001-2002	164
2002-2003	176

Instructors

- Faculty Members:
 - Dept. of Civil & Environmental Engineering
 - Dept. of Chemical Engineering
 - Dept. of Environmental Health
- Consultants:
 - CH2M HILL
 - EQM, Inc.
 - Shaw Environmental
- Graduate Students

Instructors' Qualifications

- Ph.D.
- P.E. (Professional Engineer)
- Q.E.P. (Qualified Environmental Professional)
- C.C.M. (Certified Consulting Meteorologist)
- Real World Experiences
- Teaching Experience

Classroom Facilities

- Seminar room and electronic classroom at the University of Cincinnati College of Engineering

Laboratory Facilities

- Air Pollution Control Laboratory at the College of Engineering with permanently installed wind tunnel for APTI #450
- Electronic classroom equipped with 24 labtops with wireless Internet access for APTI #423
- SO₂ and NO_x monitors and CEMs van for APTI #474

Laboratory Courses Offered at the University of Cincinnati ETI

- APTI #423 : Air Pollution Dispersion
Modeling
- APTI #450 : Source Sampling for
Particulate Pollutants
- APTI #474 : Continuous Emissions
Monitoring

#450 Laboratory

- 2 Sets of Method-5 Sampling Trains
- Wind Tunnel with Sampling and Calibration Ports
- Dust Feeder
- Standard and S-type Pitot Tubes
- Analytical Balance
- Orsat Analyzer

**"I sent staff to attend APTI #450
Source Sampling course {at UC ETI}
in Oct 2000 and it was a big hit -
more staff wanted to attend".**

(An e-mail from NY State DEC)

423 Laboratory

- Dispersion and meteorology models are pre-installed in labtops for hands-on exercises
- Meteorological and other data are downloaded via the wireless Internet capability of the electronic classroom

“Thank you for hosting the "Air Pollution Dispersion Models: Theory and Applications (APTI #423)" training. I enjoyed the training and left with new skills that are already proving useful.”

(A participant from Cherokee Nation, Inter-Tribal Environmental Council (ITEC))

“Overall, we enjoyed the course and your hospitality. Convey our regards to our instructors. They made the course interesting and we learned a lot.”

(An APTI #423 participant from Air Facilities Section, Miami-Dade County DERM)

States Most Frequently Served

- Kentucky
- Ohio
- Michigan
- Pennsylvania
- Virginia
- West Virginia
- Indiana

International Students

- Canada
- Mexico
- Israel
- South Africa
- Hong Kong
- Thailand

On-The-Road/Customized Courses (2000-2002)

Course #	Location	Sponsor
423	Port Elizabeth, South Africa,	SAFETECH (January, 2002)
423	Columbus, Ohio	Battelle Memorial Institute (July, 2001)
461	Providence, Rhode Island	NEWMOA (June, 2001)
474	Bangkok, Thailand	Thailand Dept. of Pollution Control (December, 2000)

Other On-The-Road/Customized Courses and Sponsors

#461 in Pearl City, HW	<i>WESTAR</i>
#423 in Hong Kong	<i>Asian Productivity Organization</i>
#461 in Denver, CO	<i>WESTAR</i>
#450 in Bangkok, Thailand	<i>Kenan Institute Of Private Enterprise and Thailand Engineering Institute</i>
#452 in Bangkok	<i>Mahidol University</i>
#461 in East Liberty, OH	<i>Honda</i>

Other On-The-Road/Customized Courses and Sponsors (cont.)

#415 in Bangkok, Thailand	<i>Thailand Engineering Institute</i>
#413 In Chiang Mai, Thailand	<i>Chiang Mai University</i>
#415 In Chiang Mai, Thailand	<i>Chiang Mai University</i>

FY 02-03 Scheduled Courses Statistics

APTI #	Date	Number of Student s	Number of Days	Student- Days
423	Dec 02	17	4.5	77
474	June 03	29	4.0	116
450	June 03	14	4.0	56
		60		249

FY 02-03 On-The-Road Courses Statistics

APTI #	Date	Sponsor	Location	Number of Students	Number of Days	Student-Days
427	Oct 02	Metro4	Memphis TN	38	4.5	171
461	Apr 03	Metro4	Charlotte NC	32	3.5	112
461	Nov 03	Metro4	Frankfort KY	46	3.5	161
				116		444

Proposed APTI Courses FY 2004-2005

- APTI #450 : 2 Laboratory Sessions
- APTI #423 : 1 Laboratory Session
- APDLN Telecourses
- On-The-Road Courses

ETI Specialized Courses

- APTI #413 : Control of Particulate Emissions
- APTI #415 : Control of Gaseous Emissions
- APTI #423 : Air Pollution Dispersion Modeling
- APTI #427 : Combustion Evaluation
- APTI #450 : Source Sampling for Particulate Pollutants
- APTI #461 : Intermediate Permitting
- APTI #470 : Quality Assurance for Air Pollution Measurement Systems
- APTI #474 : Continuous Emissions Monitoring

QUESTIONS??

