Pollution Prevention Faculty and Programs: Biological and Environmental Sciences
Dr. Charles Clanton, PE, teaches two classes and conducts research in waste management, including livestock manure, food processing wastes, on-site sewage treatment, and land application of municipal effluents and sludges. Teaches Engineering Principles of Soil-Water-Plants Systems, a sophomore/junior level course, and Agriculture Waste Management Engineering, a Graduate/Senior level course in which students operate a mock consulting firm in which they receive letters, requests, and waste samples from fictitious clients; test samples; analyze the results; and formulate the design or recommendation. The final lab is a mock hearing.

Dr. Robert L. Myers, teaches undergraduate interdisciplinary courses on environmental science and agricultural science that include components on pollution. An emphasis is placed on taking a systems approach to problem-solving. Also participates in the University of Missouri Environmental Affairs Council, which looks at environmental practices of the University.

Dr. Naraine Persaud teaches senior level courses in Soil and Groundwater Pollution and Soil Physics. Also teaches junior level course in Physics of Pollution. Dr. Persaud is involved in the development of environmental science curricula and faculty enhancement for teaching environmental courses.

Dr. David Pimentel teaches and researches in environmental policy, looking specifically at reducing the use of pesticides. Assess costs of using pesticides—both environmental and monetary to farmers. Students are mostly graduate and senior level in agriculture and energy. Developed Sustainable Agriculture compendia for the NPPC, which was released in Summer 1996.
1997 Directory of Pollution Prevention in Higher Education

303  **DR. L. MARK RISSE**  
Agriculture Pollution Prevention Specialist  
University of Georgia  
Extension Engineering Program  
307 Hoke Smith Building  
Athens, GA  30602  

Phone:  (706) 542-2154  
Fax:  (706) 542-1886  
E-mail:  mrisse@bae.uga.edu

Conducts an Extension and applied research program in all areas of agricultural pollution prevention in conjunction with the Pollution Prevention Assistance Division of the Georgia Department of Natural Resources. Maintains extensive database and library of papers and publications dealing with agricultural pollution prevention. Supplies technical assistance and on-site pollution prevention assessments for commercial growers, farmers, and agricultural processing industries. Proactive approaches include (1) applied research, (2) exhibits at production meetings, (3) industry workshops, fairs, and agricultural expositions, (4) development and hosting of symposia and workshops, and (5) production of educational publications dealing with agricultural pollution prevention issues.

---

304  **DR. ROBERT W. GENSEM ER**  
Assistant Professor, Department of Biology and Center for Energy and Environmental Studies  
Boston University  
5 Cummingston Street  
Boston, MA  02215  

Phone:  (617) 353-6339  
Fax:  (617) 353-6340  
E-mail:  gensemer@bio.bu.edu

As an environmental toxicologist, Dr. Gensemer's role in the Center for Energy and Environmental Studies (CEES) is teaching and research related to the impacts of human activities on biological species, communities, and ecosystems. Environmental toxicology is a relatively new and rapidly growing academic discipline that combines the science of ecology with its application to understanding the effects of xenobiotic chemicals released to the environment. His teaching responsibilities include a core course for the CEES environmental science major, Environmental Ecology, and is currently developing a new advanced undergraduate/graduate level course on Environmental Toxicology. Research interests involve the influences of toxic chemicals on the health of aquatic ecosystems, using aquatic plants as experimental systems. More specifically, Dr. Gensemer’s research focuses on the specific physiological responses of aquatic plants to environmental stressors, and how these physiological processes are quantitatively and mechanically related to the responses of whole plant populations and communities. For more information, visit WWW site at http://cees-server.bu.edu/.
Lic. Ruben Lijteroff is on the faculty of the Departments of Chemistry, Biochemistry and Pharmacy at the National University of San Luis. He is currently working on his doctoral thesis in Biology, where he is investigating the subject: Diagnosis and Urban Environmental Management in the city of San Luis, Argentina. The theme of his investigation is urban water pollution, air and use of soil and their subsequent application to a program of urban environmental management as a means of preventing environmental pollution in the city of San Luis. In addition to his work at the University, Lic. Lijteroff develops publications and conferences on environmental topics for professionals, politicians, and high school students.

**MR. ANDREW P. DUNCAN**

Doctoral Candidate and Adjunct Instructor, School of Natural Resources and Environment
University of Michigan
430 East University
Ann Arbor, MI 48109-1115

Phone: (313) 665-1514 (home)
Fax: (313) 936-2195
E-mail: aduncan@umich.edu

Interested in pollution prevention and resource conservation from a social science perspective. Developed NPPC Compendia on Environmental Studies and Pollution Prevention. Taught Greening the Maize and Blue, an undergraduate seminar at the School of Natural Resources and Environment. The course gave students a classroom introduction to prevention-oriented environmental management, and the opportunity to implement environmental stewardship projects in conjunction with partners from around the University of Michigan. Mr. Duncan had incorporated pollution prevention modules and greening the campus projects in other courses. Research interests in socio-behavioral aspects of the prevention concept—factors that promote source reduction behaviors, the distinguishing characteristics of prevention activities, and life cycle thinking. For more information on Greening the Maize and Blue, visit WWW site at http://www.umich.edu/~aduncan/gmbindex.html.

**MR. NICK KELLER**

Director, Campus Ecology Program
National Wildlife Program
8925 Leesburg Pike
Vienna, VA 22184-0001

Phone: (703) 790-4317
Fax: (703) 790-4468
E-mail: nkeller@nwf.org

Campus Ecology, a program of the National Wildlife Federation, offers a number of resources to the higher education community. Four organizers located regionally across the country work with campuses one-on-one and distribute the following: Project Resource packets on 16 environmental topics, campus environmental audit materials and case studies, and the book *Ecodemia*, which documents successful efforts to reduce pollution, improve energy efficiency, and manage campuses based on their environmental impacts. Campus Ecology’s Toxic & Hazardous Waste, Chlorine-Dioxin, and Great Lakes programs provide proactive solutions to pollution. Campus Ecology exists to establish environmentally sound practices on college campuses by promoting leadership and action within the campus community. For more information, visit WWW site at http://www.nwf.org/nwf/prog/campus.html.
Brown is Green (BIG) is an environmental education and advocacy program established at Brown University in 1990 that links student research and education efforts with administrative offices, to implement programs that reduce the environmental impacts of operations. As the Environmental Coordinator for Brown, Mr. Teichert works directly with faculty and staff at the University to identify areas of high resource consumption and reduce the institutional barriers to conservation. Mr. Teichert supervises student interns working on specific research projects as well as oversees a course on practicing environmental stewardship (ES 41). Interns address a specific type of resource consumption, identify how individual choices and behavior affect the aggregate impact of the University community, and attempt through information and education, to encourage more responsible behavior. Intern projects include energy conservation and pollution reduction related to lighting, water consumption, septic disposal, and solid waste. Past ES 41 research projects include the study of student refrigerator use in dorm rooms, fluorescent desk lamps, low flow showerheads in dorm showers, and low maintenance landscaping on campus. For more information, visit WWW site at http://www.brown.edu/Departments/Brown_is_Green/.

Conducts workshops on marine tropical ecosystems to teachers and their students. The workshop consists of a three-day experience where teachers and students are provided with hands-on experience on the subjects of: ecosystem structure, ecosystem community and species composition, population dynamics, population effects to anthropogenic factors. A portion of the workshop is devoted to understanding how pollution affects tropical ecosystems and how these problems can be prevented or mitigated. Also teaches Biology of Plankton and Introduction to Oceanography.
Dr. Letson's research interests include environmental economics, fisheries regulation, and ecosystem management. Dr. Letson is developing a compendium on Coastal Pollution Prevention for the National Pollution Prevention Center with Dr. Daniel Suman (see record number 312). This compendium will include case studies conducted by students in a graduate research and writing seminar taught though the Division of Marine Affairs and Policy. These case studies will illustrate related principles of law, resource economics, and marine policy.

Mr. Libby conducts pollution prevention training programs for employees of the US Coast Guard. Develops course curriculum for Coast Guard. Set up federal government program for model facilities. As a result of this project, Mr. Libby won the 1995 and 1996 White House “Closing the Circle” Award for Environmental Excellence in Pollution Prevention.

Dr. Suman has been conducting research on the adaptability of the fishing sectors in Chile, Peru and Ecuador to ENSO climate variability, as well as continuing his investigations on coastal wetland management, and environmental legislation in Central America, South America, and the Caribbean. He is researching user group conflicts in the establishment of marine harvest refugia in the Florida Keys. Dr. Suman is developing a compendium on Coastal Pollution Prevention for the National Pollution Prevention Center with Dr. David Letson (see record number 310). This compendium will include case studies conducted by students in a graduate research and writing seminar taught though the Division of Marine Affairs and Policy. These case studies will illustrate related principles of law, resource economics, and marine policy.
313  DR. TERENCE BALL  
Social Sciences  
University of Minnesota  
Minneapolis, MN 55455  
Phone: (612) 624-0083  
Fax: (612) 626-7599  

Teaches a project-oriented course dealing with P2 ethics, which encourages paying attention to and critically examining the consequences of our actions on the environment. Students are required to submit a written report or a project video tape for the course.

314  DR. JOHN H. BRADLEY  
Chairman, School of Business Administration  
St. Thomas University  
16400 NW 32 Avenue  
Miami, FL 33054  
Phone: (305) 628-6598  
Fax: (305) 628-6504  
E-mail: jbradley@acad.stu  

Currently working on a course in Environmental Economics to be included in a minor in Environmental Studies.

315  DR. WILLIAM BUDD  
Program in Environmental Sciences and Regional Planning  
Washington State University  
Troy Hall 305  
Pullman, WA 99164-4430  
Phone: (509) 335-8536  
Fax: (509) 335-7636  

Has developed an introductory P2 course and an advanced course in environmental auditing. These courses are exclusively devoted to P2. Pollution prevention is also incorporated into courses in hazardous waste management and environmental engineering. The curricula are being supported by funds from EPA and the Washington State Department of Ecology.

316  DR. JOHN E. CARROLL  
Dept. of Natural Resources  
University of New Hampshire  
221 James Hall  
Durham, NH 03824-3591  
Phone: (603) 862-1020  
Fax: (603) 862-4976  

Teaches both Graduate and Undergraduate courses on (1) international environmental ethics and values as applied to pollution, environment, toxics, natural resources, agriculture, and energy; (2) the application of ecological thought to pollution control; and (3) the role of religious/spiritual values in pollution control.
DR. NOELLETTE CONWAY-SCHEMPF
Director, Green Design Initiative
Carnegie-Mellon University
GSIA 224
Shenley Park
Pittsburgh, PA  15206

Phone:  (412) 268-2299
Fax:    (412) 268-6837
E-mail: ncØy+@andrew.cmu.edu

Directs Carnegie Mellon University’s Green Design Initiative—a program to develop environmentally-conscious products and processes. The Initiative involves (1) research aimed at providing industry with P2 tools and technologies, and (2) educational programs aimed at instilling an environmental awareness among university graduates, regardless of major, by incorporating environmental modules and case studies into required core courses.

DR. NANCY COPPOLA
Department of Humanities
New Jersey Institute of Technology
University Heights
Newark, NJ  07102

Phone:  (201) 596-5726
Fax:    (201) 565-0586
E-mail: coppola@admin.njit.edu

Member of a faculty team developing a P2 curriculum initiative under a grant from EPA to research, write, and implement a multi-disciplinary textbook across a technical curriculum. The team’s book, Pollution Prevention from a Humanities and Social Science Perspective, is a task oriented casebook that examines P2 from a philosophical, ethical, aesthetic, social, cultural, political, and economic perspective. Currently refining this work for eventual distribution outside NJIT.

MR. J. DAVID EAGAN
Institute for Environmental Studies
University of Wisconsin—Madison
70 Science Hall
550 North Park Street
Madison, WI  53706

Phone:  (608) 263-1796
E-mail: djeagan@students.wisc.edu

Each Fall semester, 1991 through 1995, the capstone seminar in the Environmental Studies Certificate Program has focused on environmental issues affecting the University of Wisconsin—Madison. Students working in teams design research projects on current problems relating to the University’s use of resources, environmental impact, and natural history. Projects are done in collaboration with staff and administration clients who work with students to ensure that outcomes directly benefit the university. Student projects are action-oriented. Their aim is to complete a small win for campus stewardship over the semester. Copies of all student reports (over 200 to date) are on reserve in the Environmental Studies Library and are available as a resource for the entire campus. Some of the projects have helped to contribute to waste reduction and P2. Recently, for example, student projects led to (1) a brochure on non-point pollution for the 4,200 residents in Eagle Heights, a student/family housing area, and (2) a switch to recycled paper in self-serve copiers in a campus library. Co-edited The Campus and Environmental Responsibility with David W. Orr (record number 328) of Oberlin College, a book of case studies on campus-based environmental initiatives.
DR. STEVEN GRUNDY  
Coordinator, Environmental Programs  
Royal Roads University  
2005 Sooke Road  
Victoria, British Columbia  
CANADA  C9B 5Y2  
Phone:  (604) 391-2579  
Fax:  (604) 391-2610  
E-mail: sgrundy@phoebe.royalroads.ca

Royal Roads University offers undergraduate and graduate degrees in Environmental Science with a focus on pollution prevention. The University is developing its own P2 strategy and is offering a P2 training institute next year. Many of the faculty at Royal Roads are leading advocates of P2 training. Dr. Grundy serves on the provincial P2 steering committee. The library at Royal Roads has one of the best P2 collections in North America.

DR. DENISE GUERIN  
Department of Design, Housing and Apparel  
240 McNear Hall  
University of Minnesota  
1985 Buford Avenue  
St. Paul, MN  55108  
Phone:  (612) 626-1257  
Fax:  (612) 624-2750  
E-mail: dguerin@che2.che.umn.edu

Teaches course with Becky Yust (record number 336) entitled The Introduction to the Designed Environment to 200 students each year, which focuses on the interaction of the human with the social, natural, and designed environments. The roles of professional designers and consumers of design are investigated as they affect decisions relating to daily life, pollution prevention, and life cycle analysis. Consequences of these decisions are explored in relation to the human ecosystem. P2 is further explored through field trips to landfills and recycling centers as well as through student research papers.

DR. A. L. HAMMETT  
Associate Professor, College of Forestry and Wildlife Sciences  
Virginia Polytechnic Institute & State University  
Blacksburg, VA  24061-0323  
Phone:  (540) 231-2716  
Fax:  (540) 231-8176  
E-mail: himal@vt.edu

Teaches World Forestry, an undergraduate course focused on issues related to forestry and forest products, and Wood Industry Management, an undergraduate and graduate course on the forest industry. Conducts research in nontimber forest products and values and supervises natural resource graduate students and their research projects in Nepal. From May 1992 to July 1995 served as Chief of Party (Team Leader) and Senior Advisor for the Institute of Forestry Project, Pokhara, Nepal where he directed USAID funded project to develop Nepal’s two campus Institute of Forestry (IOF); advised on curriculum development, short- and long-term training, and campus improvements; helped develop in-service training capability; facilitated links with funding agencies and other universities; advised Dean and administration on policy, institutional development and sustainability. For more information, visit WWW site at http://www.vtwood.forprod.vt.edu/.
DR. CHARLES KULPA
Director, Center for Bioengineering and Pollution Control
Professor of Microbiology
University of Notre Dame
152 Fitzpatrick Hall of Engineering
South Bend, IN 46556

Teaches a Graduate environmental science course. Graduate research in the following areas: studies on the biodegradation of aromatic compounds in various types of bioreactors; degradation of ethers added as oxygenates to gasoline; biodegradation of TNT; application of PRC and RT-PCR to bioremediation and pollution prevention and control systems. Studies using sequencing batch reactors, sequencing batch biofilm reactors and CSTRs. Seminar programs, student exchanges, postdoctoral training and visiting scholar programs aimed at developing innovative research in pollution control and prevention.

DR. XIANNUAN LIN
Director of Graduate Studies, Energy and Environmental Studies Program
Boston University
675 Commonwealth Avenue
Room 141
Boston, MA 02215


DR. DIANA LIVERMAN
Director, Latin American Area Center
University of Arizona
1522 East Drachman
P.O. Box 210475
Tucson, AZ 85721-0475

Is the Director of the Latin American Studies Program at the University of Arizona. The program is interdisciplinary, but it has a strong focus on environmental issues in Latin America, especially Mexico and Brazil. For more information on the program, visit WWW site at http://w3.arizona.edu/~laac/. Teaches a graduate seminar on Latin American Environmental Policy and a freshman general education course called People and the Environment.
326  DR. ORIE L. LOUCKS
Ohio Eminent Scholar in Applied Ecosystem Studies and Professor of Zoology
Chairperson, Miami University
Sustainability Project
Miami University
Department of Zoology
Oxford, OH 45056

Phone: (513) 529-1677
Fax: (513) 529-6900
E-mail: loucks@msmail.muohio.edu

Developing a course and textbook entitled Sustainability Perspectives in Business and Resources, covering principles and measurements in the assessment of benign production and stewardship technologies (including waste reduction, pollution prevention, etc.); for an audience of business and science majors in their senior year, or for graduate students. The Miami University Sustainability Project conducts workshops, seminars, and other activities under the following paradigm: “Sustainability requires that business and resource use be conducted in ways that meet the needs of the enterprise and its stakeholders today, while protecting, sustaining and enhancing human resources and the environment tomorrow.”

327  MR. TODD MACFADDEN
Montana Pollution Prevention Program
Montana State University
Cooperative Extension Service
Taylor Hall
Bozeman, MT 59717

Phone: (406) 994-3451
Fax: (406) 994-5417
E-mail: acxtm@trex.oscs.montana.edu

Completed an eight-lesson educational guide for the Native American Community Colleges entitled Pollution Prevention and Cultural Preservation in Native American Communities. This toolkit was developed with the guidance of Native American educators specifically for use in Tribal colleges. As a self-guided and self-contained Tribal college instructional module this tool kit includes: Instructor’s Educational Guide containing eight lesson plans, Student Guide, Instructional Transparencies, Student Worksheets, and Tests and Evaluations. This module is designed to be used alone as a new course of study or to complement an existing natural resources curriculum. Mr. MacFadden is also interested in integrating concepts from Native American culture with pollution prevention themes.

328  DR. DAVID W. ORR
Professor and Chair, Environmental Studies Program
Oberlin College
Oberlin, OH 44074

Phone: (216) 775-8312
Fax: (216) 775-8124

Chairs the Environmental Studies Program at Oberlin College. Interest in ecological design as it pertains to architecture, energy systems, and agriculture. Author of Ecological Literacy: Education and the Transition to the Postmodern World (State University of New York Press, 1992).
DR. MARILYN RAPHAEL
Geography Department
University of California–Los Angeles
Bunche Hall
405 Hilgard
Los Angeles, CA 90024

Teaches a freshman course, Relationship With the Environment, that addresses questions such as why pollution exists and how climatic conditions can escalate the effects of pollutants locally. Also teaches Environmental Impact Analysis, a hands-on experimental course in which students complete a P2 related group project. Both of the courses are offered twice a year and class enrollment usually exceeds 50 students. Research interests include global climate and how it may be affected by low level greenhouse gases.

DR. RICHARD A. ROTH
Assistant Professor, Department of Geography
Radford University
R.U. Box 6938
Radford, VA 24142

Discusses concepts of pollution prevention in both Introduction to Environmental Studies and Environmental Regulations, two courses offered by the Geography Department at Radford.

DR. JAMES N. SEIBER
Sierra Pacific Professor of Environmental Sciences and Engineering
Director, University Center for Environmental Sciences and Engineering
University of Nevada—Reno
Mail Stop 199
Reno, NV 89557

Graduate curricula are offered in atmospheric sciences, ecology/evolution/conservation biology, environmental engineering, hydrologic sciences, environmental sciences and health. Included is coursework/research dealing with pollution in air, water, soil, and biota and the prevention and remediation of pollution.

DR. VAL SMITH
Director, Environmental Studies Program
University of Kansas
517 West 14th Street
Lawrence, KS 66045

The Environmental Studies Program provides an interdisciplinary undergraduate major for students desiring a fundamental knowledge of the human environment, the dimensions of human impact on the environment, and the holistic approaches to solving problems resulting from this impact. The human environment
includes all facets of human activity affecting the environment, such as philosophical and ethical issues, environmental resource use and misuses, populations biology, and the chemistry of the atmosphere. The goals of the Environmental Studies program are twofold: (1) to provide a holistic view of the environment, one in which the synergistic nature of perturbations, natural and anthropogenic, can be understood; and (2) to provide the technical skills for active participation in an environmental career.

333  **DR. JOEL TARR**  
Professor of Urban and Environmental History and Policy  
Carnegie Mellon University  
Department of History  
Shenley Park  
Pittsburgh, PA  15206  

Phone: (412) 268-2609  
Fax: (412) 268-1019  
E-mail: jtØ3+@andrew.cmu.edu

Teaches courses which center on critical issues in American environmental history. Courses involve discussions of urban and industrial metabolism over time and the history of wastes generation and disposal. Discusses technological and policy options and the evolution of pollution control legislation. Dr. Tarr also researchs on the historical evolution of environmental pollution, especially in an urban context.

334  **DR. LEIF I. THURESSON**  
Professor, Department of Environmental Science and Technology  
Linköping University  
Linköping, SWEDEN  58183  

Phone: (46) 13 281 263  
Fax: (46) 13 122 587  
E-mail: ltn@ifm.liu.se

The Department of Environmental Science and Technology at Linköping University offers courses on Environmental Science, Environmental Technology, Environmental Measurement Technology, Environmental Impact Assessment, Life Cycle Assessment, Ecodesign, Technical Environmental Chemistry, and Environmental Management. Dr. Thuresson conducts research on the following topics: (1) optimization of biological processes in forest industry; (2) material flow in a sustainable society; and (3) time perspective on hazardous compounds flow in the technosphere and biosphere. For more information, visit WWW site at http://www.ifm.liu.se/Envtech/.

335  **DR. ALISA B. WICKLIFF**  
Department of Geography and Earth Sciences  
University of North Carolina at Charlotte  
318 Kennedy Building  
Charlotte, NC  28223  

Phone: (704) 547-3968  
Fax: (704) 547-3970  
E-mail: abwickliff@email.uncc.edu

Teaches a lab in geography and earth sciences with some focus on pollution prevention. Program includes lectures, workshops and seminars. Also participates in teleconferences with regard to environmental issues.
Teaches course with Denise Guerin (record number 321) entitled Introduction to the Designed Environment to 200 students each year, which focuses on the interaction of the human with the social, natural, and designed environments. The roles of professional designers and consumers of design are investigated as they affect decisions relating to daily life, pollution prevention, and life cycle analysis. Consequences of these decisions are explored in relation to the human ecosystem. P2 is further explored through field trips to landfills and recycling centers as well as through student research papers.

Is the Director of the Environmental Science Program for undergraduates (B.S. in Environmental Science). Involved in laboratory and research development. Also interested in process design/chemical engineering and pollution prevention.

Teaches and promotes waste management in short educational programs for health students and professionals. Would like to expand educational efforts (from risk analysis and waste management) to include some P2 concepts. Works with a variety of health related industries on waste minimization and pollution prevention.

General scholarly interests include: environmental engineering assessment of origin, transport, fate, and
effects of pollutants on environmental systems, especially toxic pollutants originating with industrial activities and pollutants conveyed in urban storm water runoff; and analysis of effectiveness of environmental control technologies, policies, and regulations. Specific research interests include: (1) industrial pollution prevention for toxic pollutants, including pollutants in storm water, hazardous wastes, and wastewater; and (2) storm water and urban runoff pollution control, including assessments of impacts and methods for control of pollutants in runoff from industrial facilities. Also involved in the development and evaluation of policies, regulations, and regional programs for industrial pollution prevention and control of pollutants conveyed in urban runoff. Additional work includes post-project assessment of impacts on environmental systems.

340 DR. ANNA HARDING
Department of Public Health
Oregon State University
Waldo Hall 309
Corvallis, OR 97331-6406
Phone: (541) 737-3832
Fax: (541) 737-4001
E-mail: harding@ccmail.orst.edu

Teaches and conducts research in area of environmental health—including courses in environmental science, environmental health, pollution prevention, water sampling and analysis, and environmental risk communication. Emphasis in P2 is general, as students who take the course are from various disciplines, including public health, engineering, chemistry, life sciences, and liberal arts. Works on an interdisciplinary team of scientists to provide technical assistance to community groups whose neighborhoods have been contaminated by hazardous waste.

341 DR. PREMLATA MENON
Assistant Professor, School of Public Health
University of Hawaii
Biomed Building D104H
1960 East-West Road
Honolulu, Hi 96822
Phone: (808) 956-5744
Fax: (808) 956-4585
E-mail: premlata@hawaii.edu

Teaches Hazardous Materials to undergraduate students and Hazardous Materials Management and Environmental Determinants of Health to graduate students. Co-teaches Air Pollution, Toxics and Control to graduate students.

342 DR. HARA P. MISRA
Professor, College of Veterinary Medicine
Virginia Polytechnic Institute & State University
Blacksburg, VA 24061-0342
Phone: (540) 231-7174
Fax: (540) 231-7367
E-mail: misra@vt.edu

Teaches Environmental Health Toxicology to undergraduates. Conducts research on molecular basis of metal toxicity and genotoxicity and role of free radicals on the health effects caused by environmental pollutants.
WASTE MANAGEMENT

343  **M.R. PHILLIP S. BERRY**  
Principal, Pollution Prevention Management Co.  
Instructor, Oregon State University Extension  
6327 SW Capitol Highway #101  
Portland, OR 97201  
Phone: (503) 225-1050  
Fax: (503) 225-5532  
E-mail: pberry@teleport.com

Is a part-time Faculty member at Mt. Hood Community College and an Instructor at Oregon State University Extension. Developed and has taught, each year since 1992 a 4 quarter hour community college level course entitled Pollution Prevention. This course, taught at Mt. Hood Community College, is part of Oregon’s only environmental, undergraduate, certificate/AS degree program. Recently developed and taught Pollution Prevention and Waste Minimization. This 2 quarter hour graduate extension engineering course is now an elective in Oregon State University’s Graduate Environmental Engineering Certificate Program. As a full-time consultant, accepting only pollution prevention, waste reduction and process efficiency work, Mr. Berry has developed an extensive series of training sessions and workshop modules related to these subjects.

344  **M.R. BILLY D. BRIGHT**  
Coordinator, Environmental Programs  
USAF School of Aerospace Medicine  
Bioenvironmental Engineering Dept.  
2513 Kennedy Circle, Building 180  
Brooks AFB, TX 78235-5023  
Phone: (210) 536-3831  
Fax: (210) 536-5920  
E-mail: bright@usafsam.brooks.af.mil

Teaches college accredited Environmental and Industrial Health courses to Department of Defense personnel. The Pollution Prevention Tools, Techniques and Technologies course offers students specialized experience in waste minimization, recycling, P2 technologies, opportunity assessments and case studies on the application of technologies.

345  **DR. JAMES D. ENGLEHARDT**  
Assistant Professor, Department of Civil and Architectural Engineering  
University of Miami  
P.O. Box 248294  
Coral Gables, FL 33134  
Phone: (305) 284-5557  
Fax: (305) 284-3492  
E-mail: jengleha@umiami.ir.miami.edu

Pollution prevention is included in the graduate course Solid and Hazardous Waste. Research includes economic benefit-risk modeling for environmentally conscious manufacturing and design, and subjective risk assessment modeling for evaluation of oil spill prevention alternatives.
346  **DR. CYNTHIA FRIDGEN**  
Resources Development  
Michigan State University  
Natural Resources Building.  
East Lansing, MI  48824  

**Phone:** (517) 355-9578  
**Fax:** (517) 353-8994  
**E-mail:** 22331fri@msu.edu

Runs an educational outreach program on handling hazardous materials. Focuses on risk perception and subsequent behavioral response. Provides assistance to scientists and communication risk information to local publics who are dealing with sites of contamination.

347  **DR. ERNESTO GUTIERREZ-MIRAVETE**  
Chairman and Associate Professor, Department of Metallurgy  
Hartford Graduate Center  
275 Windsor Street  
Hartford, CT  06120  

**Phone:** (860) 548-2464  
**Fax:** (860) 547-0868  
**E-mail:** ernesto@hgc.edu

The Hartford Graduate Center offers a Graduate Certificate Program in Pollution and Waste Prevention in Manufacturing. Through this certificate program, Dr. Gutierrez-Miravete has taught Pollution and Waste from Manufacturing, Clean Technologies in Metal Processing, Pollution Free Plastics and Ceramics Processing, and Topics in Pollution Prevention and Hazardous Waste Minimization.

348  **MS. ELLEN HARRISON**  
Waste Management Institute  
Center for the Environment  
Cornell University  
Rice Hall  
Ithaca, NY  14853  

**Phone:** (607) 255-8576  
**Fax:** (607) 255-8207  
**E-mail:** ezh1@cornell.edu

The Cornell Waste Management Institute promotes waste reduction education and research within the Cornell Center for the Environment by encouraging joint research and outreach proposals with non-center members. The Institute is active in public information dissemination and education and works with area businesses to reduce waste. The Institute has developed short courses on solid waste reduction, presently including P2 concepts. Recent projects include developing a source reduction tool kit for municipalities, a Waste Prevention Tools at Work manual and video, and a Smart Shopping tool kit for educating consumers. For more information on people involved with the Waste Management Institute, see record number 111 (Schuler).
DR. ROY HARTMAN
Center for Recycling and Waste Management Studies
Texas A&M University
Box 3367
College Station, TX 77840-3367

Phone: (409) 845-4930
Fax: (409) 847-9396
E-mail: r-hartman@tamu.edu

Offers interdisciplinary undergraduate courses in waste management, life cycle design, and waste reduction technology. Works with area businesses in evaluating their production programs. Believes in early training in science in order to understand environmental issues. Interested in the development of environmentally friendly or substituted goods and goods manufactured from recycled materials; the challenge is developing a market for these goods through incentives. Also doing research on developing economically viable products using modest scale, modest cost technologies. Using discarded paper, metals, plastic and glass as stock. The goal is to provide improved employment opportunities for moderately skilled workers in small and rural communities.

DR. TIM JONES
Department of Anthropology
University of Arizona
Archaeology Subgroup
Building 30
Tucson, AZ 85721

Phone: (602) 621-6299
Fax: (602) 621-9608

Research and teaching on garbage analysis and landfills. Courses taught in the past include topics such as garbage data analysis and life cycle analysis of commodities and products.

DR. FRAN MCMICHAEL
Director, Center for Solid Waste Management
Carnegie Mellon University
Department of Civil and Environmental Engineering
Schenley Park
Pittsburgh, PA 15206

Phone: (412) 268-2948
Fax: (412) 268-1019
E-mail: fm2a@andrew.cmu.edu

Director of Carnegie Mellon’s Center for Solid Waste Management. Teaching and research focus on solid waste management, particularly battery recycling and waste management. Currently working on a research project entitled Product Design for the Environment. This project applies concurrent engineering concepts to products and processes to mitigate environmental impacts over life cycle and develops methodologies and design advisors for process engineering such as size reduction, landfiling, and combustion and products such as automobiles, computers, consumer durables and electronics.
352  **MR. JEFF SEADON**  
UNITEC Institute of Technology  
Private Bag 92025  
Auckland, NEW ZEALAND  
**Phone:** (+649) 849-4180  
**Fax:** (+649) 815-4326  
**E-mail:** jseadon@unitec.ac.nz  

Teaches Waste Minimization, a course offered in the Bachelor of Technology (Environment) degree program. In this course, students conduct waste minimization and pollution prevention research projects in association with city councils and local industry.

353  **DR. R. L. SWANSON**  
Director, Waste Reduction and Management Institute  
State University of New York at Stony Brook  
Marine Sciences Research Center  
Stony Brook, NY 11794-5000  
**Phone:** (516) 632-8704  
**Fax:** (516) 632-8064  
**E-mail:** lswanson@ccmail.sunysb.edu  

The Waste Reduction and Management Institute and the School of Professional Development and Continuing Education have developed a State Approved Graduate Certificate Program in Waste Management. The program’s focus is on individuals seeking professional preparation for management positions requiring knowledge that integrates environmental processes with the consequences of anthropogenic impacts. The 18 credit program offers the following classes: Waste Management Issues, Environmental Law, History of Waste Management, Emerging Technology is Solid Waste Management, Environmental Engineering, Solid Waste Recycling: Processes and Issues, Groundwater Problems: Hydrology, Environment & Public Health, Marine Pollution, Economics of Waste Management, Introduction to Risk Assessment and Risk Management, Diagnosis of Environmental Disputes, and Waste Management: Systems and Principles. All are 3 credit courses.

354  **DR. DOUG WILSON**  
Archaeological Investigations Northwest Inc.  
1034 S.E. 122nd Avenue  
Portland, OR 97233  
**Phone:** (503) 252-5140  
**Fax:** (503) 252-5405  

Currently developing a landfill excavation and exhibit concept with the Oregon Museum of Science and Industry (OMSI) which will integrate past (historical) information on reuse and recycling in the Portland metropolitan area with data excavated from local area landfills. Purpose is to educate the public on landfill composition and the impacts of reuse/recycling programs in Oregon over the past four decades.

355  **DR. WAYNE E. WOLDT**  
University of Nebraska—Lincoln  
253 Chase Hall  
Lincoln, NE 68583-0726  
**Phone:** (402) 472-8656  
**Fax:** (402) 472-6338  
**E-mail:** bsenØ 1Ø@unlvm.unl.edu  

Conducts research and technology transfer on topics that address the issues of environmental contamination and the management of solid and hazardous waste. Specific areas of research include: P2 for industrial/commercial generators, integrated solid waste management systems, detection and mapping of subsurface contamination, risk assessment and management, use of geoelectrical data to define site hydrogeology, consideration of imprecision and subjective judgments using fuzzy set theory, and multidimensional mapping of environmental phenomena using geostatistical techniques.