

Environmental Engineering Program

Annual Report Summary

1999–2000

STUDENTS AND GRADUATES

The Environmental Engineering Program presently has 15 M.S. and 10 Ph.D. students enrolled; the majority of students are full-time and financially supported. During the past year, the program received 52 full applications, while 21 were accepted into the program. Two program Ph.D. students received University Fellowships (Mr. Luke Hellerich and Ms. Liv Brakewood). The program graduated three M.S. and 3 Ph.D. students. Six students graduated with a minor in Environmental Engineering; two sophomore-level students are currently pursuing an Environmental Engineering major (officially online since fall 1999).

FACULTY

Detailed activities of the Environmental faculty can be found in the annual reports of their respective home departments. Some highlights follow: Nikolaos Nikolaidis stepped down as director of the Program; the program is currently governed by a committee (Professors Thomas Wood (CHEG), Fred Ogden (CEE), and Barth Smets (CEE, chair)), with Nik Nikolaidis (CEE) continuing as coordinator of the undergraduate program. Domenico Grasso left the University and currently is founding chair of the Engineering Program at Smith College (Northampton, MA); he retains an adjunct appointment with the Environmental Engineering Program. Allison MacKay (Ph.D. 1997, MIT) joined the Environmental Engineering Program and Department of Civil & Environmental Engineering during fall 1999, after postdoctoral work at the Connecticut Agricultural Experiment Station. Recent promotions include: Nik Nikolaidis, promotion to professor; Fred Ogden, tenure and promotion to associate professor; Barth Smets, tenure and promotion to associate professor; and Tom Wood, tenure as associate professor.

Across the program, external research funding is at an all-time high. In addition, our faculty continue to hold prestigious national research awards; e.g., Joe Helble (CHEG) and Barth Smets hold NSF Career Awards, while Emmanouil Anagnostou (CEE) holds and NASA New Investigator Award, and Fred Ogden holds and U.S. ARO Young Investigator Award. Dr. Ogden also received the Collingwood Price and the Best Reviewer Award from the ASCE Water Resources Division.

Many of our faculty hold significant offices within the University, as well. Mike Cutlip (CHEG) is Director of the University Honors Program; George Hoag (CEE) is Director of the Environmental Research Institute; Dr. Helble is Head of the Chemical Engineering Department; Kenneth Noll (MCB) is Chair of the Microbiology Graduate Field of Study; Robert Vinopal (MCB) is Chair of the Biotechnology Program. In addition, our faculty hold appointments in various national professional and learned societies: Dr. Smets is appointed to the National Research Council's Committee on Bioavailability of Contaminants in Soils & Sediments; Dr. Cutlip serves as National Chairman of the Chemical Engineering Division of the American Society of Engineering Education; Dr. Helble has several appointments in the American Association for Aerosol Research; Jim Fenton (CHEG) serves on the Board of Directors of the Electrochemical Society; Dr. Anagnostou serves on NASA's Tropical Rainfall Measuring Mission; Nelly Abboud (CEE) is a Board member of the American Filtration and Separation Society; James Bryers (Center for

Biomaterials, UCHC) serves on the National Research Council Committee on Biotechnology Education and the U.S. Department of State Committee on Environmental Biotechnology; Dr. Schulthess (PLSC) serves on the American Society of Agronomy and Can Erkey (CHEG) serves on the Green Chemistry Division, American Chemical Society. Tom Torgersen (MARN) is editor of *Reviews of Geophysics* and associate editor of *The Geochemical Journal*; Dr. Ogden is associate editor of the *Journal of Irrigation and Drainage*, ASCE; while Drs. Abboud and Hoag serve on editorial boards of *Fluid/Particle Separation Journal* and *Journal of Soil Contamination*, respectively.

Internationally, Drs. Anagnostou and Nikolaidis serve on the Scientific Council of the National Center for Marine Research and consult to the *National Observatory of Athens*, Athens, Greece, respectively; while Dr. Abboud is organizing chair of the conference, "Engineering Technology in the New Millennium" in Beirut, Lebanon.

Dr. Joseph J. Pignatello, Adjunct Associate Professor of Environmental Engineering (Dr. Pignatello's primary appointment is at Connecticut Agricultural Experiment Station), is an active collaborator with program faculty; he co-authored 7 peer reviewed publications and obtained research funding from the USDA National Research Initiative Competitive Grants Program and the Northeast Utilities Service Company.

PROGRAM

Through the Al Geib Distinguished Lecture Fund, the program participated in the campus-wide "Teale Lecture Series" by hosting Peter Matthiesen, naturalist and National Book Award winning author, who spoke on the Everglades.

This year has been marked by several multi-investigator activities that can support research and graduate education in Environmental Engineering in years to come:

- An award was received from the U.S. Department of Education, Graduate Assistance in Areas of National Need (GAANN) Program for "A Graduate Fellowship Program in Environmental Biotechnology at the University of Connecticut." This constitutes the first such award received by the University. The award constitutes a three-year funding for up to nine fellows with institutional payments (Total Direct USDE funds: \$688,500) Program participants are Drs. Bryers, Noll (co-director), Smets (director), Vinopal and Wood.
- A joint Johns Hopkins-UConn-UMaryland proposal was submitted to the U.S. EPA to establish a Hazardous Substance Research Center, "Center for Hazardous Substances in Urban Environments," with a total EPA budget of \$6 million for five years. Program participants are Drs. Helble, Hoag, MacKay, Nikolaidis, and Smets.
- A joint Yale-UConn proposal was submitted to NSF to establish an Engineering Research Center Initiative "Combustion Engineering Center." The Center would entail a total budget of \$17 million from NSF and of \$5 million from industry for five years. Program participants are Drs. Baki Cetegen (ME) and Helble.
- Finally, a proposal was submitted to the NSF Division of Undergraduate Education for Courses Curriculum and Laboratory Improvement. This entails a total budget of \$250,000 for three years, with Drs. Torgerson and Ogden the participants.