Solid and Hazardous Waste Management

The Engineering School of Sustainable Infrastructure and Environment
Department of Environmental Engineering Sciences

Education for Leadership Roles
• Optimizing Solid Waste Management Techniques for the Protection of Human Health and the Environment and for a more Sustainable Society
• Leading in the Understanding of Waste Characteristics and their Potential for Beneficial Use as well as their Potential for Environmental Degradation
• Assisting Developing Countries with their Solid Waste Challenges and thereby Improving Global Health

Research Focus Areas
• Bioreactor Landfills
• Combustion and Thermal Treatment Residuals
• Contaminated Soil Characterization and Treatment
• Construction and Demolition Debris
• Electronic Waste
• Hazardous Waste
• Landfill Design and Operations
• Landfill Gas and Leachate
• Recycling and Beneficial Use of Wastes
• Treated Wood
• Waste Characterization and Leaching
• Solid Waste Management in Developing Countries

Research Outcomes
• Sustainable Solid Waste Management
• Innovative Methods for Treating Solid and Hazardous Wastes
• Prevention of Soil and Groundwater Contamination from Solid Waste Disposal
• Optimized Recycling and Use of Waste Materials

Research Benefits
• Improved Control of Solid and Hazardous Wastes
• Improved Global Health and Environmental Protection
• Increased Recycling and Beneficial Use of Wastes
• Increased Energy Production from Waste Materials

Research Opportunities
• Federal, state and industry contracts and grants provide support for graduate and undergraduate research.
• Graduate fellowships and assistantships with full tuition waiver and competitive stipends.

Facilities
• Analytical Laboratories
• Thermal Plasma Arc Torch and Reactor Facilities
• Bench and Pilot-scale lab facilities
• Field sites with active research

Employment Opportunities
Graduates in academia, consulting engineering firms, governmental regulatory agencies, and public works agencies are contributing to solving solid and hazardous waste problems.
Faculty

Michael D. Annable, Ph.D., P.E.
Professor
Solid and Hazardous Waste Management; Water Resources

Angela S. Lindner, Ph.D.
Associate Professor and Associate Dean for Student Affairs
Biogeochemical Systems; Solid and Hazardous Waste Management;
Sustainability Science & Engineering
Biological transformations and bioremediation of substituted aromatic
and aliphatic compounds; Microbial ecology of mixed cultures; Pollution
prevention and life cycle analysis (LCA)

Timothy G. Townsend, Ph.D., P.E.
Professor
Solid and Hazardous Waste Management

Graduate Study Programs

Master’s Program
The 30-credit program can be completed with either a thesis or a coursework-only option.

Doctoral Program
The 90-credit program is research oriented and carried out under the supervision of experienced faculty members who have a record of high quality research and excellent publication records.

Courses
Advanced Solid Waste Treatment Design
Municipal Refuse Disposal
Advanced Solid Waste Systems Design
Science, Policy and Economics of Recycling
Field Methods in Environmental Hydrology
Advanced Pollution Transport
Immiscible Fluids in Porous Media

Other elective courses, both in EES and in other departments across the College of Engineering and the University of Florida can be added to the student’s program of study to build both depth and breadth into their educational experience.

Contact information
For information on graduate admissions requirements, research opportunities and funding information, please visit the web site for the Engineering School of Sustainable Infrastructure & Environment at www.essie.ufl.edu.

For specific inquiries, e-mail gradinfo@essie.ufl.edu

Specify Solid and Hazardous Waste Management