ENVIRONMENTAL SCIENCE AND TECHNOLOGY (ENST)

Graduate Degree Program
College: Agriculture and Natural Resources

Abstract
The Department of Environmental Science and Technology (ENST) offers graduate programs leading to the Master of Science and Doctor of Philosophy degrees. ENST students can choose to work within one of four specializations: Soil and Watershed Sciences; Ecological Technology Design; Wetland Science; Ecosystem Health and Natural Resource Management.

Financial Assistance
ENST offers a number of graduate assistantships to qualified applicants that are awarded on a competitive basis. To apply, use the form for requesting financial assistance included in the Graduate School application packet. In addition to a competitive stipend, graduate assistants receive tuition remission and are offered excellent health benefits by the University of Maryland.

Contact
Tina Scites
Administrative Assistant and Graduate Coordinator
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1426 Animal Sciences/Agricultural Engineering Building
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College Park, MD 20742
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Martin C. Rabenhorst, PhD
Director of Graduate Studies
Department of Environmental Science and Technology
1109 H.J. Patterson Hall
4065 Campus Drive
University of Maryland
College Park, MD 20742
Telephone: 301.405.1343
Fax: 301.314.2763
Email: gradstudies-enst@umd.edu

Website: http://www.enst.umd.edu

Program-Specific Requirements
- Letters of Recommendation (3)
- Graduate Record Examination (GRE)
- CV/Resume
- Publications/Presentations

Students seeking admission should have strong training in the basic sciences and mathematics. To be admitted with full admission status, a student must have completed a minimum of one semester of Calculus and a total of at least 20 credits in some combination of basic level Chemistry, Physics, Biology or Mathematics (beyond Calculus I). It is also helpful for applicants to have completed other courses in science and engineering. Applicants to the M.S. program must have earned a B.S. degree in a related field with an undergraduate cumulative GPA of 3.0 or higher. Applicants to the Ph.D. degree program must have earned an M.S. Degree in a closely related field. In special cases students may be admitted to a Ph.D. program without first completing an M.S. degree provided these students have:

1. an exceptional academic record and test scores; and
2. have demonstrated significant research experience during their B.S. program (such as completion of a research based honors thesis.)

Graduate Record Examination scores (GRE · General Test) are required of all applicants. International applicants must also submit TOEFL scores

For more admissions information or to apply to the program, please visit our Graduate School website: www.gradschool.umd.edu/admissions

Application Deadlines

<table>
<thead>
<tr>
<th>Type of Applicant</th>
<th>Fall Deadline</th>
<th>Spring Deadline</th>
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<tbody>
<tr>
<td>Domestic Applicants</td>
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<tr>
<td>US Citizens and</td>
<td>17 Jan</td>
<td>4 Oct</td>
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<tr>
<td>Permanent Residents</td>
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<tr>
<td>International Applicants</td>
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<tr>
<td>F (student) or J (exchange</td>
<td>17 Jan</td>
<td>27 Sep</td>
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<tr>
<td>visitor) visas; A, E, G, H, I and L visas and immigrants</td>
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Other Deadlines: Please visit the program website at http://www.enst.umd.edu

Requirements
- Environmental Science and Technology, Doctor of Philosophy (Ph.D.) (https://academiccatalog.umd.edu/graduate/programs/environmental-science-technology-enst/environmental-science-technology-phd)
- Environmental Science and Technology, Master of Science (M.S.) (https://academiccatalog.umd.edu/graduate/programs/environmental-science-technology-enst/environmental-science-technology-ms)
Facilities and Special Resources

The Department has many well-equipped laboratories designed to carry out basic and applied research in Soil and Watershed Sciences, Ecological Technology Design, Wetland Science, and Ecosystem Health and Natural Resources Management. Laboratories are located on the College Park campus in H.J. Patterson Hall and the ANSC/AGEN Building. Greenhouse facilities are available on campus and a statewide network of research and education centers as well as our proximity to Chesapeake Bay provide access to a wide range of environmental conditions for research. Students have access to computer resources in the department and a comprehensive computer center located on campus. The University Libraries on campus and the National Agricultural Library located nearby, supplemented by the Library of Congress, make the library resources accessible to students among the best in the nation. Many ENST projects are conducted in cooperation with other departments on campus and with professionals at various scientific centers in the area. Scientists at the USDA-ARS, US Geological Survey, the National Academy of Sciences, NASA, National Institutes of Health, Department of Energy, Smithsonian, and National Park Service, US Fish & Wildlife Service, as well as other agencies, have cooperated with ENST faculty on various projects. Scientists from some of these agencies have adjunct appointments in the Department, have taught special courses at the University, and participate on graduate committees.

Faculty

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First/Middle Name</th>
<th>Graduate Faculty Status</th>
<th>Academic Credentials</th>
<th>Positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armbruster Peter</td>
<td>Special Member</td>
<td>B.A. Univ. of California at San Diego 1989; Ph.D. Univ. of Oregon, 1997.</td>
<td>University Affiliate, Environmental Science and Technology</td>
<td></td>
</tr>
<tr>
<td>Azar Masoud</td>
<td>Full Member</td>
<td>B.S., Azad University Iran 2002; M.S. University of Tehran Iran 2007; Ph.D. Colorado State University, 2012.</td>
<td>Assistant Professor, Environmental Science and Technology</td>
<td></td>
</tr>
<tr>
<td>Baldwin Andrew H.</td>
<td>Full Member</td>
<td>B.S., Tufts University, 1983; B.S., 1983; Ph.D., Louisiana State University-Baton Rouge, 1996.</td>
<td>Associate Professor, Environmental Science and Technology</td>
<td></td>
</tr>
<tr>
<td>Binford Gregory D.</td>
<td>Special Member</td>
<td>B.S. Clemson University, 1986; M.S. Iowa State Univ., 1988; Ph.D. 1991.</td>
<td>University Affiliate, Environmental Science and Technology</td>
<td></td>
</tr>
<tr>
<td>Bowerman William W.</td>
<td>Full Member</td>
<td>B.A. Western Michigan University, 1985 M.A. Northern Michigan University, 1991 Ph.D. Michigan State University, 1993</td>
<td>Chair, Environmental Science and Technology</td>
<td></td>
</tr>
<tr>
<td>Bryant Ray B.</td>
<td>Special Member</td>
<td>B.S. Texas Tech Univ. 1973; M.S. 1977; Ph.D. Purdue Univ. 1981.</td>
<td>University Affiliate, Environmental Science and Technology</td>
<td></td>
</tr>
<tr>
<td>Coale Frank J.</td>
<td>Full Member</td>
<td>B.S., University of Maryland-College Park, 1981; M.S., University of Kentucky-Lexington, 1983; Ph.D., 1986.</td>
<td>Professor, Environmental Science and Technology</td>
<td></td>
</tr>
<tr>
<td>Fanning Delvin S.</td>
<td>Full Member</td>
<td>B.S., Cornell University, 1954; M.S., 1959; Ph.D., University of Wisconsin-Madison, 1964.</td>
<td>Professor Emeritus, Environmental Science and Technology</td>
<td></td>
</tr>
<tr>
<td>Felton Gary Kent</td>
<td>Full Member</td>
<td>B.S., University of Maryland-College Park, 1976; M.S., 1981; Ph.D., Texas A&amp;M University-College Station, 1987.</td>
<td>Associate Professor, Environmental Science and Technology</td>
<td></td>
</tr>
<tr>
<td>Harrell Reginal M.</td>
<td>Full Member</td>
<td>B.S., Clemson University, 1975; M.S., 1977; Ph.D., University of South Carolina, 1984.</td>
<td>Professor, Environmental Science and Technology</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Degree(s) and Institutions</td>
<td>Position(s)</td>
<td>Committees</td>
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<tr>
<td>Hill</td>
<td>B.S., North Carolina State University, 1974; M.S., 1981; Ph.D., Iowa State University, 1984.</td>
<td>Professor, Environmental Science and Technology</td>
<td>Lang, Megan W.</td>
<td>Full Member, University of Charleston, 1997; M.S. Univ. of Maryland, 2000; Ph.D. 2005.</td>
</tr>
<tr>
<td>James</td>
<td>B.A., Williams College, 1973; M.S., University of Vermont, 1979; Ph.D., 1981.</td>
<td>Professor Emeritus, Environmental Science and Technology</td>
<td>Miller, Raymond J.</td>
<td>Full Member, B.S., University of Alberta-Edmonton, 1957; M.S., Washington State University, 1960; Ph.D., Purdue University, 1962.</td>
</tr>
<tr>
<td>Kangas</td>
<td>B.S., Kent State University, 1974; M.S., University of Oklahoma, 1978; Ph.D., University of Florida, 1983.</td>
<td>Associate Professor, Environmental Science and Technology</td>
<td>Momen, Bahram</td>
<td>Full Member, B.S., University of Mazandaran Iran 1978; M.S., University of California-Davis, 1988; Ph.D., University of California-Berkeley, 1993.</td>
</tr>
<tr>
<td>Kleinman</td>
<td>B.S., Cornell Univ. 1989; M.S., 1995; Ph.D., 1999.</td>
<td>University Affiliate, Environmental Science and Technology</td>
<td></td>
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</tr>
<tr>
<td>Landa</td>
<td>B.S. City College of New York, 1970; M.S. Univ. of Minnesota, 1972; M.P.H. 1974; Ph.D. 1975.</td>
<td>Adjunct Professor, Environmental Science and Technology</td>
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Note: The table continues with additional entries, but they are not shown here.
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<thead>
<tr>
<th>Name</th>
<th>Membership</th>
<th>Degree Details</th>
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<tr>
<td>Pachepsky</td>
<td>Special Member</td>
<td>University Affiliate, Environmental Science and Technology</td>
</tr>
<tr>
<td>Pavao-Zuckerman</td>
<td>Full Member</td>
<td>B.A., Binghamton University, 1995; M.S., University of Tennessee, 1998; Ph.D., University of Georgia, 2003.</td>
</tr>
<tr>
<td>Peer</td>
<td>Full Member</td>
<td>B.A., California State University, Bakersfield, 1989; Ph.D., University of California, Santa Cruz, 1996.</td>
</tr>
<tr>
<td>Penn</td>
<td>Special Member</td>
<td>B.S. Pennsylvania State Univ. 1998; M.S. Univ. of Delaware, 2001; Ph.D. Virginia Tech, 2004.</td>
</tr>
<tr>
<td>Pinkney</td>
<td>Special Member</td>
<td>B.S., Univ. of Michigan, 1976; M.S., NYU, 1982; Ph.D., Univ. of MD, 1988.</td>
</tr>
<tr>
<td>Rabenhorst</td>
<td>Full Member</td>
<td>B.S., Univ. of Maryland, 1975; M.S., 1978; Ph.D., Texas A&amp;M Univ., 1983.</td>
</tr>
<tr>
<td>Shirmohammadi</td>
<td>Full Member</td>
<td>University of Rezaeiyeh Iran, 1974; M.S., University of Nebraska-Lincoln, 1977 Ph.D., North Carolina State University, 1981.</td>
</tr>
<tr>
<td>Steinhilber</td>
<td>Adjunct Member</td>
<td>University of New York-Albany, 1969; M.S., New Mexico State University-Las Cruces, 1977; Ph.D., University of Georgia, 1981.</td>
</tr>
<tr>
<td>Tilley</td>
<td>Full Member</td>
<td>B.S., North Carolina State University, 1992; M.E., University of Florida, 1996; Ph.D., University of Florida, 1999.</td>
</tr>
<tr>
<td>Tjaden</td>
<td>Full Member</td>
<td>B.S. Univ. of Maine, 1978; M.F. Duke Univ. 1986; Ph.D., Univ. Maryland, 2002.</td>
</tr>
<tr>
<td>Weil</td>
<td>Full Member</td>
<td>B.S., Michigan State University, 1970; M.S., Purdue University, 1972; Ph.D., Virginia Polytechnic Institute &amp; State University, 1977.</td>
</tr>
<tr>
<td>Name</td>
<td>Title</td>
<td>Education</td>
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</tr>
<tr>
<td>Weismiller</td>
<td>Richard A.</td>
<td>Full Member B.S., Purdue University, 1964; M.S., 1966; Ph.D., Michigan State University, 1969.</td>
</tr>
<tr>
<td>Whigham</td>
<td>Dennis</td>
<td>Special Member B.A., Wabash College, 1966; Ph.D., University of North Carolina, Chapel Hill, 1971.</td>
</tr>
<tr>
<td>Yarwood</td>
<td>Stephanie A.</td>
<td>Full Member B.A. Witman College, 2001 Ph.D. Oregon State Univ. 2007</td>
</tr>
<tr>
<td>Yonkos</td>
<td>Lance</td>
<td>Full Member B.S., Washington and Lee University. 1986; M.S., University of Maryland, 1999; Ph.D., University of Maryland, 2005.</td>
</tr>
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