CHEMICAL ENGINEERING
(ENCH)

Graduate Degree Program
College: Engineering

Abstract
The Chemical and Biomolecular Engineering Department offers educational opportunities leading to a Doctor of Philosophy degree or Masters of Science degree in Chemical Engineering. Both degrees require a written thesis and an oral examination on the thesis. Our faculty research interests cover a wide array of subject matter and is well-equipped for graduate research in; aerosol science and engineering, biochemical engineering, computational modeling, fluid mechanics and mixing, fuel cell technology, metabolic engineering and systems biology, nanoparticle technology, polymer processing and characterization, polymer reaction engineering, process control, thermodynamics and transport phenomena, and systems research. The Department maintains a distributed computing network consisting of research laboratories and a PC laboratory. Major research facilities including electron microscopy, X-ray diffraction, X-ray photoelectron spectroscopy, and NMR are coordinated through a variety of laboratories.

Financial Assistance
Graduate research assistantships typically support qualified Ph.D. students. Graduate fellowships are available on a competitive basis to both entering and continuing Ph.D. students. Typically only those Ph.D. students who enter the program in the Fall semester are eligible for fellowships. We are unable to provide financial support to students in our masters degree program.

Contact
Graduate Coordinator
2113 Chemical and Nuclear Engineering Building
4418 Stadium Drive
University of Maryland
College Park, MD 20742
Telephone: 301.405.5888
Fax: 301.405.0523
Email: enchgrad@deans.umd.edu
Website: http://www.ench.umd.edu

Courses: ENCH

Admissions
The programs leading to the Master of Science and Doctor of Philosophy degrees are open to qualified students holding the Bachelor of Science degree. Admission may be granted to students with degrees in other engineering and science areas from accredited programs, and it may be necessary in some cases to require courses to establish an undergraduate Chemical Engineering background. The general regulations of the Graduate School apply in reviewing applications.

Requirements
• Statement of Purpose
• Transcript(s)
• TOEFL/IELTS/PTE (international graduate students)

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

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 Permanent Residents</td>
<td>17 Jan</td>
<td>28 Sep</td>
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<td>International Applicants</td>
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<tr>
<td>F (student) or J (exchange visitor) visas; A,E,G,H,I and L visas and immigrants</td>
<td>1 Feb</td>
<td>28 Sep</td>
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Other Deadlines: Please visit the program website at http://www.ench.umd.edu

Facilities and Special Resources
A number of special facilities are available for graduate study and research and are coordinated through the Polymer Reaction Engineering Laboratory, the Chemical Process Systems Laboratory, the Laboratory for Mixing Studies, the Thermophysical Properties Laboratory, the Laboratory for Biochemical Engineering and the Biochemical Reactor Scale Up Facility. These laboratories contain advanced process control computers, polymer processing equipment and polymerization reactors, polymer characterization instrumentation, fermentors, a laser Doppler anemometry facility, and an aerosol characterization facility.

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>
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</thead>
<tbody>
<tr>
<td>Adomaitis</td>
<td>Raymond A.</td>
<td>Full Member</td>
<td>B.S., Illinois Institute of Technology, 1984; Ph.D., 1988.</td>
<td>Professor, Systems Engineering, Professor, Chemical Engineering</td>
</tr>
<tr>
<td>Name</td>
<td>Degree(s)</td>
<td>Institution(s)</td>
<td>Position(s)</td>
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<tr>
<td>Al-Sheikhly Mohamad I.</td>
<td>B.Sc., University of Baghdad, 1974; Ph.D., University of Newcastle, 1981.</td>
<td>Professor, Materials Science and Engineering Affiliate; Professor, Bioengineering Affiliate; Professor, Chemical Engineering</td>
<td>Full Member; Professor, Materials Science and Engineering Affiliate; Professor, Bioengineering Affiliate; Professor, Chemical Engineering</td>
<td></td>
</tr>
<tr>
<td>Anisimov Mikhail A.</td>
<td>Ph.D., Moscow State University, 1968.</td>
<td>Professor, Chemical Engineering Affiliate; Professor, Chemical Engineering Associate Professor; Chemical Engineering</td>
<td>Full Member; Diploma, National Technical University of Athens, 1991; M.S., University of Illinois, Urbana-Champaign, 1996; Ph.D., University of Illinois, Urbana-Champaign, 1998.</td>
<td></td>
</tr>
<tr>
<td>Asa-Awuku Akua</td>
<td>Adjunct Member</td>
<td>Associate Professor, Chemical Engineering</td>
<td>Adjunct Member; Associate Professor, Chemical Engineering</td>
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</tr>
<tr>
<td>Bentley William E.</td>
<td>B.S., Cornell University, 1982; M.Eng., 1983; Ph.D., University of Colorado-Boulder, 1989.</td>
<td>Distinguished University Professor, Applied Mathematics &amp; Statistics, and Scientific Computation Distinguished University Professor, Bioengineering Affiliate Professor, Biological Sciences Affiliate Professor, Chemical Engineering Professor, Chemical Engineering</td>
<td>Full Member; Distinguished University Professor, Applied Mathematics &amp; Statistics, and Scientific Computation Distinguished University Professor, Bioengineering Affiliate Professor, Biological Sciences Affiliate Professor, Chemical Engineering Professor, Chemical Engineering</td>
<td></td>
</tr>
<tr>
<td>Choi Kyu Yong</td>
<td>B.S., Seoul National University, 1976; M.S., 1978; Ph.D., University of Wisconsin-Madison, 1984.</td>
<td>Professor, Chemical Engineering</td>
<td>Full Member; BS Iowa State University, Ames, IA 2003 Ph.D., University of Wisconsin Madison, WI 2009.</td>
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<tr>
<td>DeVoe Donald Lad</td>
<td>B.S., University of Maryland-College Park, 1991; M.S., 1993; Ph.D., University of California-Berkeley, 1997.</td>
<td>Full Member; Distinguished University Professor, Applied Mathematics &amp; Statistics, and Scientific Computation Distinguished University Professor, Bioengineering Affiliate Professor, Chemical Engineering Affiliate Professor, Chemical Engineering</td>
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<tr>
<td>Dimitrakopoulos Banagiotis</td>
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<td>Full Member; Diploma, National Technical University of Athens, 1991; M.S., University of Illinois, Urbana-Champaign, 1996; Ph.D., University of Illinois, Urbana-Champaign, 1998.</td>
<td>Full Member; Diploma, National Technical University of Athens, 1991; M.S., University of Illinois, Urbana-Champaign, 1996; Ph.D., University of Illinois, Urbana-Champaign, 1998.</td>
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<tr>
<td>Ferrari John P.</td>
<td>B.S., The Johns Hopkins University, 1995; M.S., University of Cincinnati, 1998; Ph.D., Rice University, 2002</td>
<td>Full Member; B.S., The Johns Hopkins University, 1995; M.S., University of Cincinnati, 1998; Ph.D., Rice University, 2002</td>
<td>Full Member; B.S., The Johns Hopkins University, 1995; M.S., University of Cincinnati, 1998; Ph.D., Rice University, 2002</td>
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<td>Karlsson Amy</td>
<td>Full Member; B.S., Iowa State University, Ames, IA 2003 Ph.D., University of Wisconsin Madison, WI 2009.</td>
<td>Full Member; B.S., Iowa State University, Ames, IA 2003 Ph.D., University of Wisconsin Madison, WI 2009.</td>
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<tr>
<td>Klauda J effery</td>
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<td>Kofinas Peter</td>
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<td>Massachusetts Institute of Technology</td>
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<td>Liu Dongxia</td>
<td>Full Member</td>
<td>BS</td>
<td>Shandong University, Ji'nan China</td>
<td>Assistant Professor, Chemical Engineering</td>
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<tr>
<td>Raghavan Srinivasra R.</td>
<td>Full Member</td>
<td>B.Tech.</td>
<td>IIT Madras</td>
<td>Professor, Chemical Engineering</td>
</tr>
<tr>
<td>Sriram Ganesh</td>
<td>Full Member</td>
<td>B.Tech.</td>
<td>Indian Institute of Technology</td>
<td>Associate Professor, Chemical Engineering</td>
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