



Chemical and Biological Engineering at Rensselaer Polytechnic Institute

The Howard P. Isermann Department of Chemical and Biological Engineering has delivered a century of excellence in teaching and research. Its graduate programs lead to research-based MS and PhD degrees and to a course-based ME degree. The department also offers joint programs with the School of Management and Technology for an MS in Chemical Engineering and an MBA or MS in Management. Faculty members maintain close ties to industry, owing to their strong records in sponsored research, consulting, and commercial applications. Department web site is <http://cbe.rpi.edu>

Rensselaer Polytechnic Institute in Troy, New York, is the oldest technological research university in the United States. Rensselaer is a private university with an enrollment of approximately 7,000 undergraduate and graduate students in engineering, the sciences, information technology, architecture, management, humanities and the arts. Our faculty members include National Science Foundation Presidential Faculty Fellows and members of the National Academy of Engineering and the National Academy of Sciences. Situated on the Hudson River just north of New York's capital city of Albany, our campus is conveniently located near New York City, Boston, and Montreal. For more information about Rensselaer's graduate programs, please contact:

Graduate Admissions
Rensselaer Polytechnic Institute
110 8th Street Troy, NY 12180-3590
Phone: 518.276.6216
Email: gradadmissions@rpi.edu
Web: admissions.rpi.edu/graduate

Emeritus Faculty

Henry R. Bungay III: Wastewater treatment, biochemical engineering

Arthur Fontijn: Combustion, high temperature kinetics, gas-phase reactions



Faculty and Research Interests

Nihat Baysal: Continuum and Molecular simulations, Materials Science, Diabetes Technology, Closed-Loop Control, Systems Biology

Georges Belfort: Membrane separations, adsorption, biocatalysis, interfacial phenomena

B. Wayne Bequette: Process control, fuel cell systems, biomedical systems

Vidhya Chakrapani: Semiconductor electrochemistry, advanced materials, optical and electronic properties of wide bandgap materials

Cynthia H. Collins: Systems biology, protein engineering, intercellular communication systems, synthetic microbial ecosystems

Steven M. Cramer: Displacement, membrane and preparative chromatography; environmental research

Jonathan S. Dordick: Biochemical engineering, biocatalysis, polymer science, bioseparations

Shekhar Garde: Macromolecular self-assembly, computer simulations, statistical thermodynamics of liquids, hydration phenomena

Ronald Hedden: Elastomers, hydrogels, pervaporation membranes, polymer-graphene nanocomposites, polymer-modified asphalts

Pankaj Karande: Drug delivery, combinatorial chemistry, molecular modeling, high throughput screening

Mattheos Koffas: Metabolic engineering, natural products, drug discovery, biofuels.

Sangwoo Lee: Polymers, nanoparticles, nanotechnology, self-assembly, symmetries, soft materials, surfactants

Joel L. Plawsky: Electronic and photonic materials, interfacial phenomena, transport phenomena.

Todd Przybycien: industrial downstream bioprocessing and on drug delivery and medical device development

Sufei Shi: Two-dimensional materials and metamaterials, nanoscale optoelectronics, ultrafast optical and THz spectroscopy.

Patrick T. Underhill: Transport phenomena; multi-scale modeling development and applications to colloidal, polymer, and biological systems

Corey Woodcock: Transport phenomena, MEMS, advanced manufacturing techniques.

Miao Yu: Advanced materials for energy and environmental applications, membrane systems for separation and catalysis

Helen Zha: Supramolecular materials for human sustainability and healthcare

Howard Littman: Fluid/particle systems, fluidization, spouted beds, pneumatic transport

Peter C. Wayner, Jr.: Heat transfer, interfacial phenomena, porous materials