



**LEHIGH**  
UNIVERSITY

## Department of Chemical and Biomolecular Engineering

*115+ year history of excellence  
and impact in research*

*Vibrant faculty-student culture at a scale  
enabling personalized mentorship*

### KEY RESEARCH AREAS

#### BIOMOLECULAR SCIENCE AND ENGINEERING

Biomaterials • Computational Neuroscience  
Biologically Inspired Targeted Therapeutics  
Antibiotic Alternatives • 3D Cell Culture and  
Tissue Engineering • Theoretical and  
Computational Biology and Biophysics

#### ENERGY AND ENVIRONMENTAL ENGINEERING

CO<sub>2</sub> Capture and Separation Science  
Experimental and Computational Catalysis Fuel  
Cells • Renewable Energy • 'Green' Electronics  
Sustainability at the Food-Energy-Water Nexus  
Particle Technologies • Organic Photovoltaics  
Flexible Optoelectronics and Batteries

#### FUNCTIONAL MATERIALS AND NANOTECHNOLOGY

Solid State Electrochemistry • Novel Catalyst  
Design and Characterization • Biosynthesized  
Quantum Dots • Hierarchical Nanoporous  
Materials • Structured Thin Film Processing  
Conjugated Polymers • Adaptable Polymeric  
Scaffolds • Organic and Hybrid-pi-Conjugated  
Materials

#### COLLOID AND INTERFACIAL SCIENCE

Bio-Nano-Interfaces • Molecular Simulation  
Molecular Spectroscopy & Catalysis • Biological  
Interfaces in Disease • Modified Surfaces  
for Adhesion, Friction, Wetting, Biocompatibility  
Colloid Science and Rheology

#### DATA SCIENCE, SYSTEMS, AND CONTROLS

Advanced Process Control • Automation  
Data Analytics • Complex Reaction Networks  
Systems Biology • Non-linear Optimization



### DEGREES OFFERED

ME, MS, PhD in Chemical Engineering  
ME Biological Chemical Engineering  
ME Chemical Energy Engineering

*All ME degrees also offered as a distance option*

### CHEMICAL ENGINEERING FACULTY

**JONAS BALTRUSAITIS**, University of Iowa  
**ANGELA C. BROWN**, Drexel University  
**HUGO S. CARAM**, University of Minnesota  
**MANOJ K. CHAUDHURY**, SUNY at Buffalo  
**JAMES F. GILCHRIST**, Northwestern University  
**JAMES T. HSU**, Northwestern University  
**ANAND JAGOTA**, Cornell University  
**CHRISTOPHER J. KIELY**, Bristol University  
**MAYURESH V. KOTHARE**, California Inst. of Tech.  
**WILLIAM L. LUYBEN**, University of Delaware  
**STEVEN MCINTOSH**, University of Pennsylvania  
**SRINIVAS RANGARAJAN**, University of Minnesota  
**ELSA REICHMANIS**, Syracuse University  
**KELLY M. SCHULTZ**, University of Delaware  
**ARUP K. SENGUPTA**, University of Houston  
**MARK A. SNYDER**, University of Delaware  
**KEMAL TUZLA**, Istanbul Technical University  
**ISRAEL E. WACHS**, Stanford University

### EXPLORE OUR PROGRAMS

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