

# UNIVERSITY OF VIRGINIA

## CHEMICAL ENGINEERING

Our chemical engineering graduate program and UVA Engineering's strong professional development curriculum prepare students to be research and technology leaders. We are a close-knit, high-energy community working together to improve lives by addressing some of engineering's most difficult challenges. And, we've been growing. Our cutting-edge, multidisciplinary research programs benefit from these talented new faculty and graduate students.



## OUR FACULTY

### JASON BATES

Ph.D., Purdue University

Catalysis, electrocatalysis, materials synthesis, materials characterization

### BRYAN BERGER

Ph.D., University of Delaware

Synthetic biology, protein engineering, biomanufacturing, biomineralization, membrane biophysics, environmental biotechnology, microbiology

### CAMILLE BILODEAU

Ph.D., Rensselaer Polytechnic Institute

Molecular simulations and artificial intelligence for molecular design

### LIHENG CAI

Ph.D., University of North Carolina, Chapel Hill

Soft matter, polymer science, biophysics, biofilms, additive manufacturing

### STEVEN R. CALIARI

Ph.D., University of Illinois at Urbana-Champaign

Biomaterials, mechanobiology, disease models, musculoskeletal tissue engineering, hydrogel design, regenerative medicine

### GIORGIO CARTA

Ph.D., University of Delaware

Bioseparations, protein chromatography, transport phenomena in adsorption and ion exchange

### JOSHUA J. CHOI

Ph.D., Cornell University

Nanomaterials for solar energy conversion, nanoparticle self-assembly, materials chemistry, optoelectronic devices

### ROBERT J. DAVIS

Ph.D., Stanford University

Heterogeneous catalysis, reaction kinetics, conversion of renewable resources

### WILLIAM S. EPLING

Ph.D., University of Florida

Heterogeneous catalysis, environmental catalysis, reaction engineering

### ROSEANNE M. FORD

Ph.D., University of Pennsylvania

Computational systems biology, environmental engineering, water resources

### GEOFFREY M. GEISE

Ph.D., University of Texas at Austin

Separations, membranes, polymers, flow batteries, water purification, clean energy

### GAURAV GIRI

Ph.D., Stanford University

Metal organic frameworks, polymer metal organic frameworks composites, organic semiconductors, crystallization, polymorphism, microreactors, microfluidics

### DAVID L. GREEN

Ph.D., University of Maryland, College Park

Nanoparticle engineering, complex fluids, colloid and interface science, soft materials

### DONALD GRIFFIN

Ph.D., University of California Los Angeles

Hydrogel particle-based biomaterial design; immunomodulatory regenerative medicine

### CHRISTOPHER HIGHLEY

Ph.D., Carnegie Mellon University

Biomaterials and biofabrication technologies, engineered tissue constructs, regenerative medicine

### GARY M. KOENIG

Ph.D., University of Wisconsin-Madison

Materials for energy storage, electrochemistry, colloid and interface science, nanomaterials, soft materials

### KYLE LAMPE

Ph.D., University of Colorado

Neural tissue engineering, biomaterials, drug delivery, redox regulation of stem cell fate, engineering cell-interactive microenvironments

### MATTHEW J. LAZZARA

Ph.D., Massachusetts Institute of Technology

Cell signaling, cancer therapeutics, systems biology, computational modeling of biological processes

### RACHEL LETTERI

Ph.D., University of Massachusetts Amherst

Materials involving functional polymers, peptides and interfacial assemblies with applications in medicine and engineering

### CHRISTOPHER PAOLUCCI

Ph.D., University of Notre Dame

Computational catalysis, heterogeneous catalysis, modeling of catalyst deactivation under reaction conditions

### LAKESHIA J. TAITE

Ph.D., Rice University

Biomaterials, cardiovascular tissue engineering and regenerative medicine, targeted drug delivery, polymer synthesis and characterization

### PHILLIP TAYLOR\*

Ph.D., University of Delaware

Molecular simulations, biomaterials, machine learning, peptide self-assembly, polymer physics

### NICK VECCHIARELLO

Ph.D., Rensselaer Polytechnic Institute

Biomanufacturing and chromatography, peptide design and discovery, drug delivery, analytical sciences

\*Starting Fall 2024

## CONTACT GRADUATE ADMISSIONS

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Department of Chemical Engineering