



Department of Chemical and Biological Engineering

NEWSLETTER

Fall 2024



Inside

Undergraduate News

Graduate Program Updates

Honors and Awards

Student & Faculty Highlights

Alumni News

Contact and Support

Welcome

Dear Alumni and Friends,

As in past years, we have a lot of exciting departmental news to share: student awards, research highlights, outreach activities, and much more! A recurring theme has been our growing national prominence, as more people around the country recognize the quality of our graduates, our expanding research enterprise, and the overall impact of our department.

As an engineer, it is always helpful to quantify our progress with some tangible numbers. One publication that is commonly referenced is U.S. News & World Report (USNWR), since it has a long history of generating rankings among different academic institutions. While it is difficult to translate many of our academic activities into a number, the most recent USNWR rankings indicate that we are the “fastest rising” chemical engineering program in the country! Roll Tide!!



*Prof. C. Heath Turner
Department Head*

THE UNIVERSITY OF
ALABAMA[®]

College of
Engineering
Chemical and Biological Engineering



Undergraduate News

The most recent national statistics rank us as the 6th largest producer of B.S. chemical engineering degrees in the country! Along with our large size, our rapid rise in other national rankings reflect the academic rigor of our programs and the quality of our graduates.

Prof. Y. John Kim, Undergraduate Program Chair



New Departmental Home

Our ChBE department very recently moved into a new departmental suite. Our new home provides excellent visibility to our guests, alumni, and other visitors from all over campus!



3438 Science and Engineering Complex

ChBE Undergraduate Student Council

The 2023-2024 Undergraduate Student Council was led by **Lauren Birschbach** (president), **Mia Eisenberg** (vice president), **Ian Brown** (secretary), and other class representatives. They help serve as liaisons between the faculty and the students throughout the year and help build a close-knit ChBE community. Some of the highlights from the year included surprise deliveries of doughnuts on the first day of class (pictured), formation of a ChBE-specific premed society, and a ChBE trivia night!



Unit Operations Lab in Denmark

This year, we took 16 students to the Technical University of Denmark (DTU), and it was led by **Profs. Kim** and **Rao**. The course includes six pilot-scale laboratory experiments, as well as a cultural presentation. We also provided the unique opportunity for two teaching assistants to travel to DTU to help with the course (this year: PhD. students **Creighton Baltier** and **Lauren Ward**)!

Summer Research Experience in Spain

For the third consecutive summer, **Profs. Bara** and **Turner** led a select group of seven students to San Sebastián, Spain to participate in hands-on research projects involving polymer synthesis and characterization at the Basque Center for Macromolecular Design and Engineering. A highlight of the trip was a short visit to Paris prior to arriving in San Sebastián!





Graduate Program Updates

Over the last five years, our graduate program has grown by 135%, which far surpasses nearly every other chemical engineering program in the country (average of -1% change over the same time period). Along with this growth, our graduate students continue to win many national-level research awards.

Prof. Yuping Bao, Graduate Program Chair



ChBE Graduate Student Peer-to-Peer Mentoring

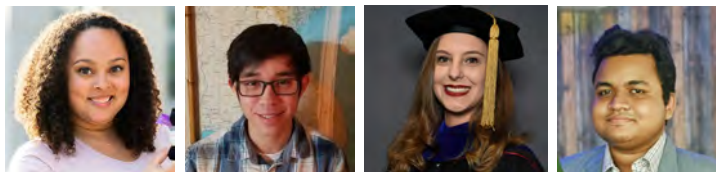
In order to help with onboarding new graduate students (e.g., questions about housing, transportation, etc.), we have recently implemented a new peer-to-peer mentoring program. Once new students arrive to campus, they quickly dive into their research projects and engage in other periodic networking events that our ChBE Graduate Student Committee (GSC) organizes, such as our International Food Festival!



The GSC officers for the upcoming 2024-2025 year are: **Joseph Danner** (president), **Andrew Agwu** (vice president), **Creighton Baltier** (treasurer), **Shivangi Borate** (secretary), **Lauren Ward** (communications manager), **Elizabeth Bury** and **Victor Olowookere** (ambassadors), **Alex Minne** and **Wilmer Andújar** (health and wellness chairs).

Doctoral Student Graduations

This year, several students earned doctoral degrees from our department and headed out into the workforce. These students have all performed extensive research in different areas of specialty, leading to numerous publications, conference presentations, and new intellectual property. We are very proud of you!



Spenser Brown

Tin Le

Meredith Mock

Shomit Mansur



Raghu Kondapaneni

Qi Li

Sandhiya Thiagarajan

Graduate Seminar Series

We hosted 25 external seminar speakers this year, including Linda Broadbelt (Northwestern) and Sharon Glotzer (Michigan), who were our “Eminent Scholar” speakers.





Honors and Awards

Our ChBE students and faculty continue to win local, national, and international recognition for their accomplishments. Every spring, we hold our Annual ChBE Awards Ceremony to celebrate these individuals and honor their commitment to excellence!

Prof. Christopher Brazel, Honors Program Coordinator



Undergraduate Students

American Institute of Chemists Senior Award: Ian Brown

AICHe H.F. Johnston Jr. Memorial Senior Award: Shane Vaara

Central Alabama Section of AICHe Outstanding Senior (Chilton) Award: Charlie Gomersal

Central Alabama Section of AICHe Outstanding Junior (Chilton) Award: Ashley Kearney

AICHe Donald F. Othmer Sophomore Academic Excellence Award: William Ford

The Alexander Stanton Memorial Undergraduate Research Award: Bryn Larson, Isabella Le

ChBE Outstanding Seniors: Jaden Anderson, Lauren Birschbach, Jonathan Blanks, Elizabeth Collinson, Fallon Haley, Brenner Kar, Paige Lonergan, Sofia Luna, Reid Lunsford, Max Moussad, Mike Rand, Charlton Sullivan, Braden Tuten, Shane Vaara

ChBE Outstanding Juniors: Landon Eskridge, Ethan McElwee, Kateri Smith, Katia Watkins

ChBE Outstanding Sophomores: Aidan Adams, Lenoire Lawing, Isabella Le, Jacob Ritondo

AICHe Outstanding Member: Reid Lunsford

Omega Chi Epsilon Outstanding Member: Rachel Lane

Capstone Engineering Society Outstanding Senior: Lela Connors

ChBE Outstanding Teaching Assistant: Johanna Fenton, Sofia Luna

ECOB Outstanding Undergraduate: Olivia Cole

ChBE Honors Graduates: Jaden Anderson, Lauren Birschbach, Lela Connors, Brenner Kar, Abigail Peichel

ChBE Outstanding Service to the Department: Lauren Birschbach, Ian Brown

Graduate Students

American Institute of Chemists Graduate Award: Lauren Ward

ChBE Outstanding Graduate Student Teaching Assistants: Algene Fryer, Nicholas Lenart

ChBE Outstanding Service to the Department: Creighton Baltier, Elizabeth Bury

ChBE Outstanding Research by Doctoral Students: Ethan Iaia, Victor Olowookere, Atta Ur Razzaq

ChBE Outstanding Masters Students: Gina Lusvardi, Lucas Podlesney

3-Minute Thesis Awardees: Atta Ur Razzaq (won 3rd place in UA competition), Nicholas Lenart, Himangshu Mondal

ChBE Graduate Research Symposium Awards: Sandhiya Thiagarajan (1st), Lauren Ward (2nd), Jaewoo Choi (3rd); honorable mention: Anh Hoang, Feranmi Victor Olowookere, Atta Ur Razzaq, Zahra Sekhvat Pour

ECOB Outstanding Graduate Student: Alexandra Avera

Faculty/Staff

ChBE Outstanding Staff Member: David Barrett

ChBE Outstanding Research Impact Awards: Tibor Szilvási

ChBE Outstanding Teaching Impact Award: Steven Weinman

AICHe Outstanding Professor: John Wiest

American Institute of Chemists Postdoctoral Researcher Award: Sudhir Ravula

ECOB Young Engineer of the Year: Kathryn O'Harra

Omega Chi Epsilon Outstanding Professor: Steven Weinman



Student & Faculty Highlights

Retirements of Profs. John Wiest and Tonya Klein

After many years of dedication to the ChBE department, **Profs. Tonya Klein** and **John Wiest** retired in 2024. Prof. Klein is an expert in thin film deposition and spent many years leading our Unit Operations Lab course. After serving in the College of Engineering administration, Prof. Wiest taught Thermodynamics and Transport Phenomena, winning the AIChE Outstanding Professor award in 2024.



Britney Mack Wins Prestigious Research Fellowship

Doctoral student **Britney Mack** was recently selected for the National Science Foundation's Graduate Research Fellowship Program, the nation's oldest fellowship program. Mack's research project will focus on remediation of organic contaminants via catalyzed ozonation water treatment. As part of this work, she will be investigating a treatment strategy to remediate the accumulation of per- and polyfluoroalkyl substances (PFAS) in public water supplies.



Lela Connors Wins Outstanding Senior Award

Every year, a superior student is selected from each department in the College of Engineering for the Capstone Engineering Society's Outstanding Senior Award. This year, the ChBE department was excited to recognize **Lela Connors** with this prestigious award. In May 2024, Lela graduated summa cum laude from UA with a B.S. in chemical engineering and a double major in mathematics, and she recently joined Eastman Chemical Company as a process improvement engineer.

Multiple ChBE Students Win UA Randall Research Awards



The Randall Outstanding Undergraduate Research Award Program recognizes and celebrates the best research activity conducted by undergraduate students at The University of Alabama. This year multiple students from the ChBE department received this prestigious recognition. Congratulations to **Rachel Lane** and **Sofia Luna** (pictured left) from **Prof. Rao's** lab and **Mary Elizabeth Martin** and **Gabe Miller** (pictured right) from **Prof. Harris'** lab on receiving awards.



Student & Faculty Highlights



Ethan Iaia Wins Prestigious Research Fellowship

Doctoral student **Ethan Iaia** received a prestigious fellowship from the Department of Energy's Office of Science. The DOE Office of Science Graduate Student Research program will allow Iaia to advance his thesis research while working in the state-of-the-art DOE Brookhaven National Laboratory alongside world-class scientists. Iaia will study catalysts in pursuit of clean energy and decarbonization using BNL's advanced facilities. He works under **Prof. Harris** and studies chemical reactions using zeolites, a naturally occurring class of crystalline porous minerals produced synthetically in the Harris Lab.

Zhongyang Wang Selected to Join IGNIITE 2024 Program

Prof. Zhongyang Wang was recently recognized as an early career innovator and selected to join the Inspiring Generations of New Innovators to Impact Technologies in Energy (IGNIITE) 2024 program, part of the Advanced Research Projects Agency-Energy within the U.S. Department of Energy. Wang will receive nearly \$500,000 in funding to advance his research project focused on reducing pollution of greenhouse emissions in marine transportation.



Tibor Szilvási Wins NSF CAREER Award

Prof. Tibor Szilvási recently received the prestigious CAREER award from the National Science Foundation (NSF) to support his innovative research and teaching ideas. His research group focuses on using computational simulations to predict and understand the performance of materials. His research reduces the need for experimental work and has helped accelerate research by identifying materials with suitable properties for a variety of applications related to plastic waste recycling and catalysis.



Hewson Engineering Faculty Fellows

The Hewson Family Foundation recently pledged a \$300,000 gift to establish the Hewson Engineering Faculty Fellows awards. The gift enhances retention efforts by recognizing exceptional work among existing faculty members and providing them resources to support their ongoing research. We congratulate **Profs. Jamie Harris** (left) and **Zhongyang Wang** (right) for their selection as inaugural award winners!

Bara Recognized with Permeance Prize

Prof. Jason Bara was recently recognized with the North American Membrane Society's Permeance Prize for mid-career excellence due to his groundbreaking contributions to the field of membrane science and technology. Also this year, Prof. Bara was honored with the UA College of Engineering Faculty Preeminence in Research Excellence and Innovation Award.





Alumni News

New ChBE Departmental Fellows

Department Fellow is the highest recognition provided by our department. It is intended to recognize people who have provided substantial service to our department, achieved significant career success within their profession, and/or demonstrated exceptional leadership to further the mission of The University of Alabama. This year, two individuals were recognized with this distinct honor.



Scott Rodrigue

Senior Vice President, R&D, Global Home Care and P&G Professional, Procter & Gamble



Dr. Milton Nettles

Middle & High School Principal at Lighthouse Christian School

Lammers Recognized as Outstanding Alumni Volunteer

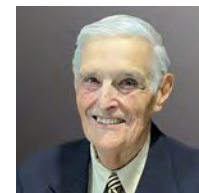
In 1995, The University of Alabama College of Engineering began a yearly tradition of recognizing an alum who provided excellent volunteer assistance to the College as the Outstanding Alumni Volunteer.

This year, **Paul Lammers** (B.S. CHE '85) was recognized with this distinction. Beyond his service to UA, Lammers is a highly successful project manager who has built a notable career overseeing hundreds of projects for a host of clients throughout his 39 years in the industry.



April Recognized as Distinguished Engineering Fellow

This year, **Dr. Gary April** was recognized by the College of Engineering as a Distinguished Engineering Fellow.



Dr. April is a former professor and head of the ChBE department. Upon his retirement in 2007, April was designated as a professor emeritus and has used his platform to honor engineers and foster an appreciation for the profession in the department, at UA, and beyond.

Patricia "Patti" Martin Elected to Alabama Engineering Hall of Fame

This year, **Patricia "Patti" Martin** (B.S. CHE '83) was inducted into the Alabama Engineering Hall of Fame. Martin previously served on boards for the UA Department of Chemical and Biological Engineering, the UAH Department of Industrial and Systems Engineering, and the University of Puerto Rico. Among her numerous honors are the Presidential Rank Award (Meritorious); Office of the Secretary of Defense Civilian Service Award; UA Chemical and Biological Engineering Centennial Fellow; UAH Distinguished Engineering Alumni Award and a UA Distinguished Engineering Fellow. During her tenure at the Aviation and Missile Research, Development and Engineering Center, Martin advanced to director of the Engineering Directorate, responsible for ensuring all aviation and missile products were safe, suitable and supportable prior to fielding to Army soldiers. She is currently a subject matter expert for TriVector Services Inc.



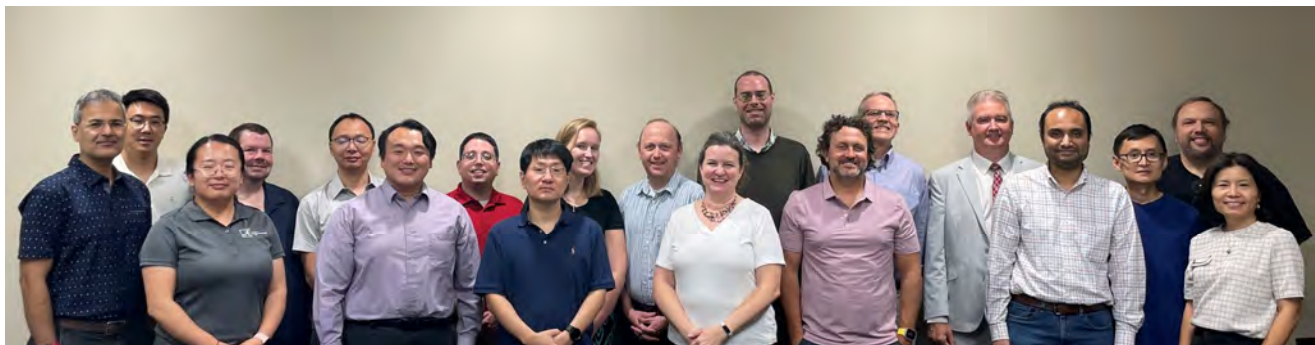


Contact and Support

THE UNIVERSITY OF
ALABAMA

College of
Engineering
Chemical and Biological Engineering

While our department has been through many changes over the years (increased enrollment, new faculty, and renovated facilities), we are most proud of the alumni who pass through our program! If it has been a while since you have been to campus, we would love to reconnect and hear from you. Whether you want to take a tour of the unit operations lab or catch up with an old teacher, our door is always open!



*Our past chemical engineering graduates regularly return to campus to share career advice with our graduating seniors, deliver guest lectures in our senior design classes, or find ways to financially contribute. If you have a desire to give back, we would love to talk with you. Financial contributions to the department can be made payable to the **Chemical Engineering Discretionary Fund** and sent to the mailing address below or via the online link provided below.*

Roll Tide!
Heath Turner



GIVE NOW!



<http://bit.ly/giveUChBE>

Department of Chemical and Biological
Engineering
3438 Science and Engineering Complex
Phone: (205) 348-6452

Department Head
Prof. C. Heath Turner
Email: hturner@eng.ua.edu
Phone: (205) 348-1733

Mailing Address
Box 870203
Tuscaloosa, AL 35487-0203