



Volume 8

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September 2026

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President's Note *Looking Ahead*

Hey, everyone! My name is **Rayne Rutherford** (left), and I am thrilled to be one of your Co-Presidents of Mississippi State's AIChE chapter for the 2026-2027 year. I am a junior from Huntsville, AL, and I am very interested in disease research, having had internships at HudsonAlpha Institute of Biotechnology and Mayo Clinic! I am so excited to continue serving our amazing chapter, community, and school this semester alongside Jim.

My name is **James Caldwell** (right), and I am serving as one of your co-presidents for the 2026-27 AIChE student chapter. I'm a senior from Flowood, MS, and I have been working in AIChE since my freshman year. This summer I worked with the School of Chemical Engineering to research catalysis through machine learning simulations. I am excited to use this year in AIChE to improve members' access to resources both in and outside the student chapter.

Starting freshman year, we have been heavily involved with AIChE, both serving as external Vice-President and in other roles in the chapter! We're excited to bring our shared commitment and love of the organization to lead the AIChE chapter this academic year.

AIChE has played a major role in our growth by connecting us with mentors and peers who have supported our academic success, community involvement, and personal development. Through resume workshops,



company information sessions, and outreach events, AIChE has helped many of our members earn competitive co-op and full-time positions. We want to expand these platforms through new channels by allowing members to work more closely with us to interact with more companies they are interested in.

AIChE provides countless platforms to connect with thriving professionals, our community, and current students. We offer the Alumni Mentoring Program, which pairs current students with alumni to provide valuable insight into navigating the corporate world. We will continue our new peer mentor program that pairs younger students with older students to foster relationships outside of the classroom. We also want to help students connect more with their classes, so we plan to start a tutoring program for underclassmen.

Looking ahead, AIChE will continue to engage with the community through our outreach programs. Our K-12 STEM initiatives, such as Girl Scouts Day and Skate Odyssey, feature hands-on science experiments designed to inspire young students. We are also excited to collaborate with other MSU student organizations such as SPE,

NOBCCChE, OXE, Brickfire, and Theta Tau. Moreover, we will continue to participate in more Bedz4Kidz bed builds to support children in need within the Golden Triangle area.

We are excited to continue strengthening our ChemE community through recreational sports, such as flag football, crawfish boils, football tailgates, and trivia nights. AIChE also hosts competitive teams such as ChemE Jeopardy, ChemE Sports, and ChemE Car, with which we compete against student chapters from other universities at the AIChE Southeast Regional Student Conference in the spring. Through these competitions, members are able to learn research, teamwork, and communication skills that aren't typically acquired in a classroom. We encourage students to get involved through leadership, as it is a great way to grow your skills and give back to an organization that provides so much. AIChE is also heading a big project as we start planning to host the 2028 AIChE Southeast Regional Student Conference! We would love to hear from you all and appreciate any feedback or ideas. We are excited to welcome you this fall and Hail State!

Significance of Safety

Co-op Highlight

By Holley Kiker

Safety looks a little different in the many fields a chemical engineer can explore. From chemical plants to food production, each sector has its own unique guidelines and concerns, making it nearly impossible for one class to cover everything. After interning at Olin Chemical Company in McIntosh, AL, the topics covered in Process Safety felt familiar, especially those involving chemical and worker safety.



However, my internship at PepsiCo in Pulaski, TN gave me an entirely new perspective on safety. Food safety is vital to human safety, yet it is a topic that can often be overlooked. Experiencing both industries helped me realize just how different safety can look from one workplace to another and how much there still is to learn.

Before each workday at Olin, I would attach my emergency respirator to my belt and enter the plant with a hardhat on. From day one, I learned what to do in the event of a chemical release and became familiar with the plant evacuation plan. This is standard practice in any industry that works closely with hazardous materials. There is a heavy focus on worker safety because of how dangerous the production of certain chemicals can be.

After shifting to food production, my mindset had to change quickly. During orientation, we were reminded

that we were “making food for human consumption.” This idea stuck with me throughout the rest of the internship because I was so used to focusing on safety in terms of myself and the people around me. At PepsiCo, I realized that safety could extend far beyond the walls of the facility. While the plant was mostly safe to work in, the consumers were the ones who could be in danger if we did not do what we were supposed to do. Each weekend, we would shut down the lines so sanitation could thoroughly clean them, and there were strict protocols in place for each changeover, which is when we would shift from producing one flavor of product to another. These procedures made me realize that even the smallest decisions on the production floor could affect someone I would never even meet. The consumer constantly had to be considered, which is something I would not have experienced in chemical production.

Looking back on both internships, my understanding of what it means to work safely has changed. At Olin, I learned to focus on protecting the people directly around me, while at PepsiCo, I learned to think about the people that will never step foot inside the facility. These experiences showed me that safety looks different everywhere, and there is always more to learn. As I continue my career as a chemical engineer, I know I will encounter new industries, processes, and challenges that will shape the way I approach these responsibilities. There is no sole way to be an engineer, and every experience will teach you something new.

Corny Corner

Why did the reactor get promoted?

Alumni Engagement Opportunities

The Swalm School is proud of its graduates! You are inspirations to current students, and there are opportunities to continue engagement.

Keep us abreast of your latest accom-

plishments for the newsletter, website, and social media.

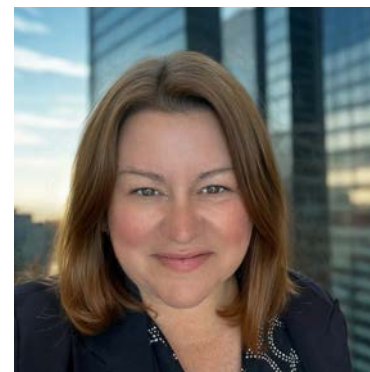
Volunteer to give a professional development seminar for CHE 3331. Recent presentations include Networking, Lifelong Learning, Global Cultural Awareness, Handling Pivot Points in Your Career, Being the Ideal Team Player, and Communication

Skills.

Participate in the Swalm alumni mentoring program. Mentors contribute to the professional preparation of their mentees by interactively sharing their knowledge, experience, and counsel.

Those interested can email Dr. Julie Jessop at jessop@che.msstate.edu.

Stephanie Roveda ('94) | Alumna Highlight



By Marilyn Bell

Mrs. Stephanie Roveda's story begins, ironically, as most of ours have. She was always the athletic and outdoorsy type, but she had a knack for math and a sincere love for high school chemistry. Though she originally looked into becoming an actuary, further research and a suggestion from her father led her to chemical engineering. She completed her undergraduate degree here at Mississippi State University and attained her MBA at Arizona State University.

Roveda's father, a former Penn State baseball player, gained an interest in MSU during the 1980s when "Thunder and Lightning" were on the baseball team, which led Roveda to take an interest in MSU as well. After multiple visits, including Super Bulldog weekend, a baseball game at The Dude, and a conversation with Dr. Rebecca Toghiani about the future of Swalm, she knew that State was the place she would one day call home.

Like many of us, during her undergraduate years, her career goals were uncertain, so she sought variety, exploring fields such as plant design, plastic testing, thermodynamics, and energy. On her 21st birthday, Roveda took a school plant trip to Dow Chemical when she made the realization that this was the environment for her, and she focused her sights on pursuing this new interest. Roveda recognizes the energy industry as one of the best ways to anchor a career as "energy is needed now, demand is growing, it's ever changing and it supports global progress." Beginning in refinery processing and then transitioning to supply optimization, commercial and trading, and market forecasting, she has experienced many careers including process engineering, operations coordination management, regional management, general management, and most recently directing value chain strategies. In her latest position, she was responsible for commod-

ity market views, strategies and action plans for Chevron's upstream portfolio of oil, gas, and natural gas liquids to deliver leading margin performance. Despite the variety found in her career, Roveda's main interest lies in global economies. She declares: "You can't predict markets. You can forecast and track, but it is always a different day." She encourages that students stepping into industry "find work you enjoy, that motivates you, as energy does for [her]." She encourages students to understand their role, ask questions, build foundational skills, and curate and maintain relationships.

Over the years she has learned numerous lessons and gained skills that have helped construct her successful career. "Know what you bring to the party"—a quote from her long-term mentor and former Chevron Treasurer, Paul Bennett. Know why you specifically have been chosen for your role, what your involvement means to the company, and how to deliver on it. In industry, work is accomplished in teams, so relationships matter—no individual is as valuable as the team. Working in corporate teams for large companies at times can feel like starting at a new school every few years since each role and organization is different, which makes learning how to develop connections, build trust, and common goals quickly essential. Additionally, learning to communicate, verbally and in writing, is critical. Framing problems, presenting opportunities, making suggestions and decisions, seeking feedback, as well as upholding discussions are essential when in industry. Roveda prioritizes safety and reliability first, then collaboration and communication to ensure and upkeep peer leading performance. Retaining a mind set on winning as a team has allowed her to attain roles of increasing responsibility where diverse groups of people are tasked with solving

complex problems.

Since graduating from MSU, Roveda has spent plenty of time visiting her alma mater. More recently her involvement has been increasing through presenting with the CREATE collaboration, attendance at the Women in Engineering Program in 2025, and just this year she was inducted into the College of Engineering Distinguished Fellow Program. She encourages current and upcoming alumni to invest their time back into Mississippi State no matter how long it has been since they have graduated. She describes attending the 2026 BCoE awards dinner as well as her induction as a Distinguished Fellow as a wonderful full circle moment. Speaking with student ambassadors and seeing the cowbells awarded for recognition reminded her that State engineers represent a broad but unique group of people who go on to become the country's leaders and innovators while maintaining humbleness. So why not support the school that helped make you who you are?

To students, Roveda suggests *"Enjoy your time at State, call your mom. It's hard work, but so worth it, hang in there, help each other and celebrate the wins. Proudly put that cowbell in your future office. Then set a few goals, not many, and align your time and activities to them. My son is a goalkeeper, and we like to say, 'What is the next play?' Focus on your next play, and the rest will work out just fine. Hail State!"*

ChEs In History



Neal R. Amundson (1916–2011), nicknamed as the father of modern chemical engineering, was a transformational engineer who changed the field for the better by introducing rigorous mathematical modeling into reactor design, transport phenomena, and process analysis. He chaired the University of Minnesota's ChE department for 25 years, and he served as a Cullen Professor at the University of Houston. His work helped shift chemical engineering from empirical practice to an analytical science.

Corny Corner

It always performed under pressure.

The Meaning of Mentorship

Special Shoutout

By Shreenithi Lakshminarayanan

Having finished my last days in Swalm this past May, like many other graduates, I find that my time at Mississippi State turned out to be very different from my freshman-year plans. Ask any graduate, and they will also recount their unexpected successes, failures, and memories that characterize the college experience. Some milestones are so fundamental to the college experience: the first day, the first interview, the first job; however, even in reaching these moments, each person has their unique track. For me, my mentors were instrumental in helping me navigate my path and, more importantly, gave me the opportunity to consider my own values and purpose.

One mentorship opportunity that stands out is when I was paired with an engineer working in product safety, attending an ICPHSO conference alongside other quality and safety professionals during my sophomore year. Product safety was a field that I did not actively think about before then, but its novelty made me curious. I met with professionals across engineering, law, governance, advocacy, and medicine, each contributing to the broader field. As I learned of their motivations and steps they took, I found more confidence in taking the step away from an industry-based career. This experience made me come to terms with how I valued one-on-one

interactions with the people I hope to help, which helped me make my decision in pursuing medicine as I approached graduation.



And with other opportunities that came down the line, like interviewing for professional programs and for the Bagley College Hall of Fame, the conversation always circled back to the impact of learning from various mentors. Most of my mentors do not share my career goal, but they have all helped me in deciding what paths are worth pursuing, and to consider my values, interests, and priorities through the initial lens of career advising. I appreciate my own background and values so much more now, and, thus, I encourage everyone, in any part of their education or career, to seek out a variety of mentors.

Warm Welcome | *Dr. Jessop*

Welcome to the Fall 2026 semester! I am honored to serve as Director of the Dave C. Swalm School of Chemical Engineering and look forward to working with our students, faculty, staff, alumni, and industry partners in this new capacity. I would like to thank Dr. Elmore for his outstanding leadership over the past decade and for his willingness to reprise his role as Undergraduate Coordinator. My priorities include expanding career development opportunities, increasing the visibility of our School, and securing resources to support growth and innovation. This fall, we are excited to unveil renovated active-learning classrooms and launch a new transfer student orientation ahead of the Fall Career Expo. Watch for more exciting developments throughout the coming academic year.



A Message For Freshman

By Ella Habig

Entering my freshman year was a mix of emotions for me. I decided to commit to Mississippi State, an out-of-state school for me, knowing only a couple of people who were attending as well. While I was excited to start this new chapter of my life, all I could feel for the first few weeks was fear and anxiety of the unknown. One thing that helped me during this time was to remember that there were other people in the same boat as I, and it takes time to adjust to a new place. Know that being uncomfortable is a normal process when entering college, and it is okay to feel this way. This also applied to my studies freshman year. College classes posed a challenge that was unlike any class that I had taken in high school, and it took a bit to become used to the way that college classes go. A piece of advice I was given that I still hold on to is to treat college like an 8 to 5 job. This has helped me stay focused on classes while also being able to contribute enough time to extracurricular activities. There will be days that you are more willing to study than others. One thing that helped me with this was finding people in my major or other engineering fields to study with. This keeps me motivated, ensuring I stay on track. It is super important to remember that everyone's journey to studying engineering is different and that you are not behind. Outside of academics, I pledged a sorority during the spring semester of my freshman year. A few of my favorite memories from the semester were sorority events such as my initiation. Being involved in my sorority helped me gain a balance between my social and academic life while giving me a chance to relax. A setback such as a bad test grade or not understanding a concept fully is normal! What matters the most is learning from those setbacks, giving yourself time to adjust, and continuing to move forward. Remembering these things will contribute to your success as you go through your engineering studies.



Congratulations to our Spring 2025 ChE Graduates!

Logan Case

Nikolas Pounders

Logan Tarter

Charles White

Thanks to everyone who contributed to making this issue a success! Look for the next issue this August.

Merilyn Bell, *Newsletter Editor*

Corny Corner Suggestions?

We'd love to hear them. Email Dr. Bill Elmore at elmore@che.msstate.edu.



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