



University of Idaho

College of Engineering



In the University of Idaho College of Engineering, we are thankful for our family.

Our alumni, friends, industry partners, students, faculty and staff are all part of an extraordinary shared purpose and commitment to excellence, and we have accomplished a great many things over the past year.

Thanks to our strong industry partnerships, our college has made significant academic and curriculum advancements, ensuring we remain at the cutting edge of emerging technologies while equipping students with the skills necessary to excel in ever-evolving careers. Industry guidance has led to the creation of **certification programs in [robotics and artificial intelligence](#), [semiconductor design and fabrication](#), [cybersecurity](#), [aerospace](#) and [biomedical engineering](#).**

The thoughtful growth of our programs is crucial to advancing our land-grant mission of educating Idaho's students. We are seeking approval now for a bachelor's degree in geological engineering to support our state's strong mining industry. We are also pursuing degree additions to secure our standing in the global semiconductor market.

Our [College of Engineering Mentorship program](#) will welcome its next **cohort** in January. Industry and alumni play a critical role in this key retention initiative, one of the only programs in our region that maximizes engagement using a model focused on tiered mentoring – peer-to-peer, student-to-mentor, and mentor-to-mentors. Students learn how to network, navigate challenges in the workplace, and find their voice with guidance and insight from both their mentors and peers.

Through their roles as mentors, guest speakers, and advisory board members, alumni engage with the college in a variety of ways. Their support in upgrading laboratories ensures that both students and faculty have the latest equipment and research spaces to conduct award-winning, nationally recognized research.

Faculty and students working in these labs are helping us close in on our goal of **reaching R1 Carnegie Classification research status in 2025**, the highest level of research activity for a university. Our college saw a **25% increase in external research funding** this past fiscal year. Through financial support of the Dean's Innovation Fund, alumni and friends have provided vital seed funding for faculty working on high-impact global research. This support has not only advanced faculty projects but also positioned them to compete for substantial funding from federal, state, and industry partners.

Our college's reputation of academic excellence and bold research goals is becoming more and more widely known, as seen in our **historic enrollment numbers** this fall. Donor support to our Engineering Allen Ambassadors has greatly impacted our ability to **reach and recruit students in rural communities across Idaho and beyond**. Our student ambassadors represent some of our college's most highly motivated students, strengthening their own professional skills in leadership,

communication, and teamwork as they promote engineering as an inspiring field for a fulfilling career.

As I look to the future, I am deeply grateful for the continued support and dedication of the entire College of Engineering community. Thank you.

Our collaboration is what propels us forward in achieving our mission to provide world-class education, pioneer groundbreaking research, and prepare the next generation of engineering and computer science leaders.

Have a joyful and restful Thanksgiving. Go Vandals!



Suzie Long, Ph.D., P.E., C.P.E.M., F. ASEM, F.IISE
Dean, College of Engineering



Congratulations, Joe Law!



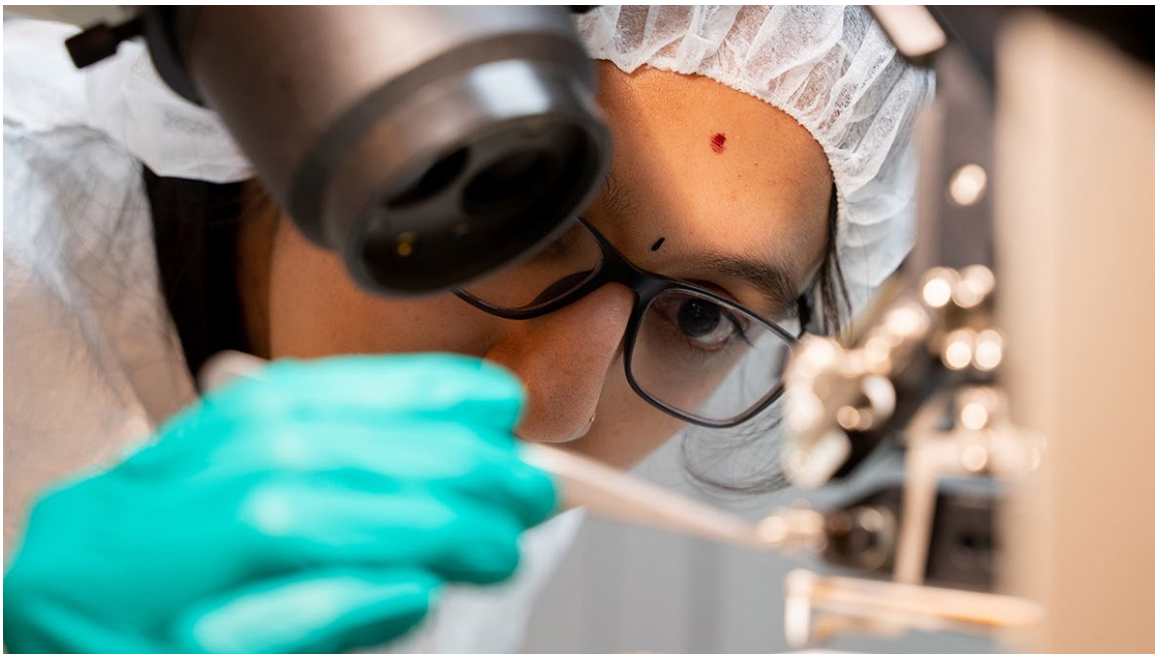
Serving the University of Idaho for decades, Joe Law has demonstrated a true passion for the education of engineering students as a U of I faculty member. Joe will retire this year.

He led the college's Advanced Transportation Group from 1993 to 1997 and helped establish the college's National Institute for Advanced Transportation Technology. In 2012, he served as director of the Idaho Space Grant Consortium and Idaho's NASA Experimental Program to Stimulate Competitive Research, known as NASA EPSCoR.

Joe collaborated with other faculty to create the college's nationally recognized capstone design program. In 2013, he was named associate dean for undergraduates, before serving as chair of the Department of Electrical and Computer Engineering.

Thank you, Joe!

Two-Year, Full-Tuition Scholarships Available



The U of I College of Engineering is offering scholarships to all Idaho students in junior standing or above who are interested in pursuing

semiconductor design and fabrication certificate programs at U of I.

Funded through the Idaho Workforce Development Council, scholarships are designed to enhance domestic industry, create high-quality jobs, and support a broad workforce. Idaho ranks among the top 10 states for semiconductor employment, with 12,300 workers representing 4% of the national workforce.

Scholarships allow students to explore robust career opportunities in our nation's growing advanced semiconductor industry and gain critical skills for research, high-volume manufacturing, design and innovation in the field of microelectronics.

[Learn More](#)

Celebrating Vandal Veterans



This month, we celebrated our Vandal Veterans and current service members, learning how an engineering mindset lends itself to a successful service career. Take it from a Vandal engineer:

"An engineering mindset is perfect for the submarine community! As a mechanical engineer, I feel well-prepared to take on complex systems, solve problems under pressure, and think critically - all crucial in the high-stakes, technical environment of submarines. Better yet, this mindset prevents me from feeling intimidated by systems I haven't seen before. I know I have the proper foundation and tools to figure anything out."

- ***Jo Rodzinka, MIDN 1/C - UI/WSU NROTC, mechanical engineering***

"Like the team at INL's Advanced Test Reactor (ATR), the Naval Nuclear Propulsion Program, where I spent my military career, relies much more on organized, coordinated brain power than on any physical strength or skill. An engineering mindset, in my experience, is characterized by the ability to disregard emotional influences and 'face the facts...brutally,' to quote the late Admiral Hyman Rickover, the father of the nuclear Navy. Thus, students and professionals with an engineering background are particularly well-suited for service in the military. By extension, military veterans are particularly well-suited for work in a research and engineering development lab like INL, where we work with unique, world-leading facilities like ATR, which require regular attention and careful, deliberate coordination of operating schedules."

- ***Nathan Manwaring, nuclear engineering***

[Read more Stories on Facebook](#)

**Help Our Idaho Clean Snowmobile Team
Travel to 2025 Competition**



Our [Idaho Clean Snowmobile Challenge Team](#) is preparing their re-engineered cleaner, quieter and more fuel-efficient stock snowmobile for national competition in the [2025 SAE Clean Snowmobile Challenge Competition!](#)

This February, the interdisciplinary team will cross four states and mountain passes to Wisconsin to compete against collegiate teams from all over the U.S. and Canada. Students apply their skills in real-world scenarios, solve complex problems on the fly, and collaborate with peers and industry professionals.

Help the team cover travel costs by supporting their goal to raise \$5,000 by Dec. 31.

[Help Support Team Competition Travel](#)

Explore the Power of Possibility



U of I Idaho Falls Associate Professor [Amin Mirkouei](#) represented our college at this year's Power of Possibility Talks event, unearthing questions and exploring research projects that redefine the boundaries of possibility.

Mirkouei discussed the immense potential held by Idaho's store of rare earth elements. His lab explores methods of extracting these valuable materials using plants and citric acid. These sustainable practices could open the way for a new mining boom in the Gem State.

[Watch Amin's Video](#)

Faculty Research Announcements

Please join the College of Engineering in celebration of our faculty and their incredible research! Have an announcement to share? Email enr@uidaho.edu.

- [Feng Li](#), Micron Endowed Chair in Microelectronics, NGeM Director, FIB/SEM Director, has been awarded \$299,938 from the National Science Foundation for the project "Heterogeneous Integration of

Wide Bandgap Semiconductor Chips for High Temperature Applications.”

- [Xiaogang \(Marshall\) Ma](#), Department of Computer Science Associate Professor and College of Engineering Dean's Distinguished Fellow, has been awarded \$161,297 from the National Science Foundation (NSF) to create an intelligent open data platform for the world's largest database on mineral species and its distributions, Mindat.
- [Vivek Utgikar](#), U of I Department of Chemical and Biological Engineering Professor, has been awarded \$140,000 from the Idaho State Board of Education Higher Education Research Council for the project “Recovery of Critical Materials from E-Waste.” Co-PI is [Krishnan Raja](#), Department of Nuclear Engineering and Industrial Management Professor.
- Mary Everett, U of I Department of Computer Science Postdoctoral Fellow, has been awarded \$119,800 from the Higher Education Research Council (HERC) Idaho State Board of Education for the project “Flexible Data Collection and Analysis Systems for Precision Agriculture and Environmental Sensing”
- [Ata Zadehgoel, Ph.D., P.E.](#), Associate Professor in the Department of Electrical and Computer Engineering, has been awarded \$300,000 from the National Science Foundation for the project “FET: EAGER: Physics-Informed AI-Models for Efficient Computation of Stochastic Electromagnetic Fields in Realistic 3D Nano-Scale Optical Interconnects.”
- A group of U of I faculty from the College of Engineering and the College of Science, including Chemical Engineering Associate Professor [Matthew Bernards](#), Biological Engineering Associate Professor [Nathan Schiele](#) and Chemistry Associate Professor [Kris Waynant](#), were recently awarded a \$598,537 grant from the Idea Network of Biomedical Research Excellence (INBRE) to design and evaluate a biomaterial and further research into tendon cell

development. The PI is College of Agricultural and Life Sciences Distinguished Professor [Carolyn Hovde Bohach](#).

Wiese Scholarship Student to Publish First Paper



Computer science junior Amanda Board will celebrate the publication of her paper in the Association for Computing Machinery's Special Interest Group on Knowledge Discovery and Data Mining this December.

Board spent her summer researching [her paper topic](#), integrating blockchain technology to large language models, like ChatGPT, to increase security, transparency and accountability.

Board is a Ray & Annie Wiese Scholar. The Ray & Annie Wiese Scholarship was established in 2021 in recognition of the positive impact of

a degree in higher education earned at U of I.

The Department of Computer Science has seen student enrollment grow by 63% since 2020. Scholarships to support exceptional students like Amanda are needed to support its large and growing student body. The college is working to increase scholarship opportunities. If you're interested in starting a student scholarship, email Maggie Scott at maggies@uidaho.edu.

[Give to CS Scholarships](#)

Encourage New Vandals to Attend Engineer Like a Vandal Virtual Events



Our college's series of Engineer Like a Vandal virtual events will be held Dec. 4 and Feb. 4. Future Vandals can zoom chat with current College of

Engineering students and recent graduates, and discover our hands-on, technical degrees and nationally recognized programs.

Registration is free, and events are open to all high school seniors interested in undergraduate engineering and computer science degrees at U of I.

[Learn More About the Series](#)

College of Engineering Social Media



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