

# SEMESTER NEWSLETTER



## 50-Year Reunion

A 50-Year ( $\pm 3$  years) reunion for chemical engineering alumni was hosted by the department on September 23 & 24, 2021. Attendees came from as far away as Tennessee, Texas, Arizona, southern Utah, and California. Twenty-one alumni from 1969-1974, in addition to 11 spouses, were included in the attending group. A welcoming reception was held the evening of the 23<sup>rd</sup> with current faculty and college staff included in the gathering. On Friday, the group (pictured above) toured the Buchanan Engineering Labs (BEL). The class of 1969 were the first students to have classes and labs in BEL, which opened for use in mid-semester fall 1968. After the tour, the alumni met with faculty for a briefing on their present activities and then visited with current students. A formal reunion dinner with ample social time was held Friday evening.

## BEL 336 Upgrade

The Buchanan Engineering Lab (BEL) 336 project was inspired from initial upgrade of BEL 347 into a senior design lab from donation by Lifelast owners Jeff Buratto, Mark Buratto and Kit Harper, chemical engineering alumni. BEL 336 is undergoing renovation as a student lounge for chemical and biological engineering students

thanks to generous donations from Nord Foundation (Mark Nordquist), Dave Powers, and others. The room is centrally located on the third floor above the Unit Operation Lab and adjoins other labs and classrooms. The student lounge will provide areas for students to sit down and study between classes, host group study, or just relax and sip a cup of coffee. The upgrade is expected to be completed by the end of spring semester.



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## Alumni Award of Excellence

The Alumni Award for Excellence recognizes the University of Idaho’s distinguished seniors at the undergraduate level, nominated by faculty, staff, and administrators. Five chemical and biological engineering students received the award. Congratulations to award recipients: A: Adam Irons (Mentored by Woody Admassu); B: Bishal Thapa (mentored by Kasee Smith); C: Sara Murphy (mentored by Woody Admassu); D: Nicholas Pancheri (mentored by Nate Schiele); and E: Peter Everett (mentored by James Moberly).

## Grand Challenge Awardees

Two of the five Grand Challenge Scholars Program Fall 2021 Pitch Event winners were biological engineering students Bishal Thapa and Alyssa Hansten. The awards were presented during the College of Engineering Academy of Engineers induction ceremony. Alyssa won the Platinum Award, the highest award, and Bishal won the Gold Award for their presentations. Congratulations to them both!

## Student Travel



(L to R) Grace James, Paetra Morgan, Chelsea Barrera, and Adam Irons ready for their preliminary round of Jeopardy at the AIChE meeting

The UI chapter of the American Institute of Chemical Engineers (AIChE) sent four officers to participate in the AIChE Annual Student Conference held in Boston, Massachusetts in November 2021. At the meeting, the students built their professional network while representing U of I in several activities.

The students represented the Pacific Northwest Region at the National AIChE Jeopardy Competition. The team

from U of I won the virtual regional competition in April 2020 to earn the right to compete in Boston. Although the team came up a little short at the National Competition, they immensely enjoyed the opportunity to participate!

The student activities at the national meeting did not stop at the Jeopardy competition. All four students participated in the Undergraduate Research Poster Competition, presenting their work among more than 400 undergraduates from around the world. Adam Irons and Chelsea Barrera presented a poster entitled “Synthesis of Thin Film, Nonfouling, Polyampholyte Hydrogels” based on their work under Dr. Matthew Bernards. Paetra Morgan and Grace James, who do research under Dr. James Moberly, presented their work on “Acid Tolerant CAH Bioremediation: Experimentation & Modeling of Hydrogel Encapsulated Biobeads”. Our students did a great job representing the department and the University!



The department has been supportive of student travels to present their papers and for networking. “Through the generous support of UI SWE chapter and the Department, I had the opportunity to attend the national conference for Society of Women Engineers.

Over the course of week, I was able to connect with large biomedical companies such as Stryker and Abbvie for internships, expand my knowledge for financial and career success after college, and connect with women across the country.” says Alyssa Hansten, Biological Engineering student who attended Society of Women Engineers 2021 conference in Indianapolis.

### Lou Edwards Endowed Chair Position

The University is moving forward with filling the Lou Edwards Endowed Chair position. Under Bill Thomson’s volunteer leadership, \$2 million was raised over 12 years, creating the first Endowed Chair in Chemical Engineering at the University of Idaho. This position will continue Lou Edwards’ tradition of excellence in leadership, teaching and research, and enable the U of I to attract and retain top faculty members. Thanks to all donors for their generous contributions.

### Post Graduate Degrees Awarded in 2021

Student	Degree	Major	Major Professor
Aamir Bashir	Ph.D.	BE	Sarah Wu
Abdullah Aldoursari	M.Engr.	ChE	Vivek Utgikar
Adam O’Keeffe	M.S.	BE	Dev Shrestha
Akari Seiner	M.S.	BE	Dev Shrestha
Allison Ellingson	M.S.	BE	Nathan Schiele
Andrew Branen	M.S.	ChE	Gautam Kumar
Connor Hill	Ph.D.	ChE	Mark Roll
Esmael Alyami	Ph.D.	BE	Ching-An Peng
Gwendolyn Williams	M.S.	BE	Nathan Schiele
Jacquelin M. Alvarez	M.S.	ChE	Matthew Bernards
Joseph Schmalz	Ph.D.	ChE	Gautam Kumar
Mark Hull	M.S.	ChE	Vivek Utgikar
Mason Anderson	Ph.D.	ChE	Gregory Moller
Stephanie Haag	Ph.D.	ChE	Matthew Bernards
Steven Herrmann	Ph.D.	ChE	Haiyan Zhao

### Departmental Scholarship Awards

The department is pleased to announce that more than 80 scholarships totaling over \$160,000 were awarded to departmental undergraduates for the 2021-2022 academic year. We appreciate all donors who support our students through scholarships.

### SpaceX Cargo Mission to Space

As part of NASA’s Student Payload Opportunity with Citizen Science ([SPOCS](#)), our students are sending an experiment to the International Space Station. The experiment will study how microgravity affects bacteria resistant materials. The NASA STEM on Station funded project will be flying on the SpaceX-24 resupply mission.”



Preflight image of the apparatus for the experiment on bacteria-resistant materials in microgravity.

### Undergraduate Degrees Awarded in 2021

Biological Engineering	Chemical Engineering
Addie White	Adriana Bryant
Bishal Thapa	Austin Greule
Blake Urie	Chad Larsen
Bradley Nicholas	Crystal Gallego
Colin Marchus	Darrik Goettsche
Gabryel Conley-Natividad	Hannah Johnson
Hope de Avila	Kael Stelck
Isabell Strawn	Khalid Alghamdi
Jacob Knudson	Levi Thomsen
Jake Varney	Luke Hugenin
Jett Murray	Malacki Ginner
Leslie Hurtado	Marquis Atkinson
Nicholas Yensen	Niko Hansen
Shubhangi Kaushik	Roslyn McCormack
Silpa Subedi	Thomas Zeiliff
Sophia Bowen	Travis Lindsey
Tayson Thompson	William Morgano
Tobias Flores-Wentz	
Tyler Haglund	



## New Department Chair Dr. Dev Shrestha

In 2020 Chemical Engineering and Biological Engineering departments merged. At that time, Dr. Ching-An Peng became the chair of the combined department, serving as chair until summer 2021. An internal search was held during spring semester for the new chair. Dr. Shrestha was chosen, and became the department chair in August 2021. Dev's research areas include renewable fuel, energy engineering, environmental life cycle analysis, and artificial intelligence. He has taught courses such as Instrumentation and Measurements, Controls, Machine Vision, and Capstone Design. He received his Ph.D. in Agricultural Engineering from Iowa State University in 2004.

### Message from the Chair

The merger of the departments of chemical and biological engineering last year brought opportunities to strengthen both programs. This is a trend we've seen across the country due to a natural synergy between two programs. The department will continue to offer chemical engineering degrees and biological engineering degrees.

The faculty in the department conduct a range of research. They were primarily categorized into three main important fields: human Health, energy, and environment - the grand challenges of the generation. Students get hands-on experience through undergraduate research and integrated lab classes in emerging areas. Due to the emerging nature of the field, it is no wonder that the department received more externally funded projects than any other engineering department. For the last fiscal year 2020-2021, total departmental funded research was \$1.8 million, over one-quarter of the college total. This allows faculty to engage students in various research projects.

One of the best ways to help students is to provide them with scholarships. About 23% of the student population are Pell grant eligible, and about 27% are first-generation college students. Thanks to generous donors, the department was able to provide 80 scholarships worth \$2,000 on average.

In addition to the scholarship, the department has an endowment to support senior capstone design projects. There are currently two projects being funded from the "Dr. Charles and Julianne Peterson" endowment fund for biomedical and biofuel related projects. While many of our students are interested in biomedical emphasis, they

appreciate the exposure to a host of other biological engineering applications.

Despite COVID, 100 percent of classes in the fall semester were in-person. In my opinion, the university is managing COVID in the best possible way, balancing excellent education and student safety. Entirely zoom classes like the second half of spring 2020 are no match for face-to-face learning.

Moving forward with the Lou Edwards Endowed Chair is excellent news for the department. The endowed chair will provide research, teaching, and student mentorship leadership to enhance learning experiences and promote industry-student engagement opportunities. The university supports the primary faculty salary line, but the activities of the endowed chair will be supported by proceeds from the Lou Edwards Endowment Fund.

The short-term goal of the department is to increase student enrollment, and to enhance the hands-on learning experience of students through improved lab classes. Additionally, I am looking forward to listening to feedback from alumni and friends. You can provide us anonymous feedback or just updated contact info at: [forms.office.com/r/uQ4Qp4HMZA](https://forms.office.com/r/uQ4Qp4HMZA) or follow this QR code:



I am excited about the future of this merged department and looking forward to its bright future. To donate, please [visit our website link](#) and select the designation: "Department of Chemical and Biological Engineering Development Fund." to help us improve quality of education.