News & Updates

Department of Applied Engineering & Technical Management

UNI University of Northern Iowa

A New Year with New Possibilities!

Greetings,

As we look further into 2023, I want to take this opportunity to share about our department's past year and provide a brief update on the Applied Engineering Building (AEB) project.

In June 2022, the AEB project broke ground with a ceremony that brought together alumni, friends, industry partners and state of Iowa representatives. In the months since, construction has proceeded with the first phase of the project, the expansion phase, on track to be completed by the end of this year. The second phase renovations are expected to be completed in 2024. We are excited for our students, faculty and the broader state to see the benefits of a new home for our department.

In addition to other updates in this newsletter, I wanted to share some exciting news in construction management as we welcomed four new instructors this year. Each brings a wealth of experience into the classroom that covers all areas of construction, and we're thrilled for our students to learn from these experienced faculty.

Warm regards,

Lisa Riedle

Department Head,
Applied Engineering & Technical Management

Students gain authentic experience through commemorative handbell project

Hands-on learning is at the heart of a UNI education, and that's especially true for the industry-focused Department of Applied Engineering and Technical Management. But a special senior-level product design course gave students a unique opportunity to apply their skills.

In 2021, the UNI Foundation approached the department to produce one-of-a-kind commemorative brass handbells to recognize supporters of the university's Our Tomorrow fundraising campaign while showcasing UNI students in the process. A total of 56 handbells were to be custom-cast in honor of new bells being added to the Campanile.

Matt Watson, '22, became the lead for the job, coordinating five separate teams with various roles ranging from bell design, casting and engraving to production of the wooden handles. It was a new type of leadership experience, Watson said, and it came with no shortage of challenges. But working as a student employee at John Deere gave him perspective. In conversations with his colleagues, he came to see the project as an "authentic experience" of what it's like to work on an industry production job.

Watson was hired as a manufacturing engineer at John Deere Engine Works upon graduation. He looks back on his time at UNI with a new appreciation for faculty, especially when it comes to teaching concepts like 5S manufacturing and Industry 4.0.ering. UNI's program will be more focused on hands-on learning.

"The goal of faculty here is not to prepare us for everything that we'll find after graduation … their goal is to introduce a broad range of concepts so that when you're in industry and you run into them, they're not brand new. I think that's the biggest thing that I've seen from UNI impacting my career after graduating."

-Matt Watson

2022 UNI Alum and Manufacturing Engineer, John Deere Engine Works

About the Bell Project

/ 34 students in the manufacturing engineering technology and graphic technology programs, logged 600+ hours to produce the bells

/ Each bell is composed of silicon brass

/ Wooden handles are made from reclaimed campus ash trees

/ Students used a variety of equipment, including the Haas TL-1 CNC lathe and Laguna CNC turner

Alumni gift to Applied Engineering Building honors late husband, brother

Pat Van Sickel and David Van Sickel have made a gift to the Applied Engineering Building (AEB) renovation in memory of John Van Sickel – Pat's husband and David's brother who died in 2012 after a battle with pancreatic cancer.

The gift will help outfit the AEB with technology and other educational tools to prepare UNI students for industry professions. In honor of the gift, the Power Lab – a key learning space for electrical engineering technology students – will be named for John.

A native of Sheffield, IA, John came to UNI with a skillset in woodworking, construction and engineering having worked alongside his father and three brothers as a part of Van Sickel Construction. In 1971, he graduated from UNI, where he met his wife Pat, with a degree in industrial arts. His younger brothers David and Eric would also attend and graduate from UNI.

A Navy veteran of distinguished service, John worked at the former Duane Arnold Energy Center, the nuclear power plant near Palo, for more than 30 years. At the time of his retirement John was a senior reactor operator and operations manager. Pat says those positions and John's opportunities to mentor new workers in the nuclear power industry brought him enormous pride.

The gift from Pat,'69 early childhood education, and David, '74 history, will honor John by providing a cutting-edge educational experience for UNI students in the Power Lab. The lab will give electrical engineering technology majors the chance to learn power systems infrastructure and gain hands-on experience with elements of conventional and renewable electrical power, including power systems operations, renewable energy systems and their integrations with an existing power grid. Students will apply critical thinking, problem solving and measurement analysis skills that will be critical in their professions.

"John would have felt right at home in the Power Lab," Pat said. "He was very hands-on — he built his own house, even getting his electrician's certification so that he could wire it himself. John also loved sharing his knowledge and was a patient teacher. He would very much enjoy knowing that something in his name is helping educate the next generation in the same hands-on style he enjoyed at the school that shaped his future."

Construction Management Faculty Update

/ Full time instructor Randy Sharp has a 35-year construction background, most recently retiring from Estate Construction in Des Moines. In addition to being in the classroom, Randy is serving the students by assisting with competitions and Construction Management Club activities.

/ Ben Griffen is a 2015 CM graduate and is teaching the program's Construction Documents course. Ben is a project manager with UNI Facilities Management and came to UNI after several years as a project manager with Peters Construction Corp. As an added bonus, Ben is the UNI's Facilities Management project manager for the Applied Engineering Building's modernization and renovation project so he will be able to share that ongoing experience with his students.

/ Architect Amy Selzer is also with UNI Facilities Management and is teaching Introduction to Construction Management. She has ten years' experience in all phases of construction from concept to design to completion.

/ Retired Army Major Herbert Flather teaches project and risk management and Construction Law. He came to UNI in 2018 as Assistant Professor of Military Science with UNI's Army ROTC program. With 20 years in Army construction, he provides students with a unique perspective on planning, creativity and decision making.

/ Construction Management also welcomed back former John Deere Health and Safety Manager Gil Schultz as the program's OSHA safety instructor. Gil retired from John Deere's Waterloo Works after nearly 30 years and has been an adjunct faculty at UNI since 2013.