

University of Arizona

Construction Engineering Management

Fall 2022 Update



Connecting industry and students

Student interest in [Construction Engineering Management \(CEM\)](#) at the University of Arizona remains strong. The photos above show construction site visits with McCarthy and Kitchell and a hands-on classroom session with Hensel Phelps. This year Granite joined others with a multiyear corporate commitment to financially support the CEM Endowment. Corporate and individual donations are critical for running CEM at UA. Your generosity matters and helps CEM train the next generation of construction engineers.

This fall we continued to “*Connect industry with students,*” some highlights include:

- Construction student profile,
- 2022 National DBIA Student Competition,
- 2022 donors to CEM,
- UA Beavers Heavy Construction Internship for Freshmen in Engineering
- Introducing two outstanding adjunct faculty
- AGC and DBIA chapters, and
- Industry speakers and construction site visits.

Meet our construction students

Alyssa Jacobo

UA Civil Engineering (BS Dec. 2022)

Alyssa worked her way through Pima Community College and the University of Arizona. She received the [ABA-Lloyd Construction Scholarship](#) this fall. She interned with Whiting-Turner last summer and will join them full time in 2023. Alyssa’s perseverance was put to the test during the beginning of the pandemic when she became the primary caregiver for her 6-month old niece. She continued with her courses full-time online and maintained a stellar GPA.



2022 National DBIA Student Competition

This fall the UA Design-Build team ranked first in the nation in the 2022 National DBIA competition on the heels of a third place showing in 2021. This is the first time for a UA student team to reach this pinnacle. The five-member team are L-Rej Awit (*architectural engineering*), Aria Mascall (*architectural engineering*), Grant Hoffman (*civil-construction engineering*), Helena Zikov (*civil engineering*), and Arsenio Figo (*civil-construction engineering*). This diverse team hails from three US states (CA, CO, OR) and three countries (USA, Indonesia, Philippines). These students were not a team in name only; they met together regularly to plan the work, brainstorm ideas, and help each other out. When teams function as teams, it is amazing what they can accomplish. The competition is structured in 3 rounds – RFQ, RFP, and presentation. The competition project was a three-story parking structure that included offices and classrooms on the top floor and a recreational field on the roof. The team presented their proposal to an industry panel at the DBIA National Conference in Las Vegas in Nov. 2022. Congratulations Wildcats!



Donations to the CEM Endowment

This year Granite renewed their commitment to the UA Construction Engineering Management program with a 3-year donation commitment totaling \$30,000 toward the CEM Endowment. Growing this endowment helps us reach our goal of bringing long-term stability to the CEM program. Granite regularly supports our construction students and program with guest presentations, hosting a mock bid at their office, construction site visits, coaching our heavy civil team, internships, and full-time hires.



Thanks to our corporate program partners

**BFL * Granite * Hensel Phelps * KE&G * Sundt
Whiting-Turner * Gervasio and Associates
Henry George Mackintosh Foundation * the Beavers**



Thanks to our individual donors to CEM

**Barry Abbott, Dave Areghini, Phil Hall,
Mike Hoover & Marie Torres, Travis & Shannon
McCarthy, Becki Nelson, Dean Papajohn**

Thanks to our Construction team sponsors

**Calportland * Concord * Core * Granite * Kappcon
Kraemer * M3 * McCarthy * Southwest Gas * Sundt**

UA Beavers Heavy Construction Internships

In 2021 we launched an initiative to attract freshmen engineering students to the heavy construction industry. This was motivated by the discrepancy between the number of civil engineering students pursuing careers in the building sector versus the heavy civil sector. A number of industry partners shared this vision and were ready to place freshmen engineering students into summer internships. In summer 2022, six student interns worked for Sundt, PCL, KE&G, Kraemer, McCarthy, and FNF. This fall [the Beavers](#), a Heavy Engineering Construction Association, began to support this effort along with Mike Hoover and Marie Torres. This year we have 12 freshmen engineering students identified for summer internships. Seven have already been placed with Sundt, Granite, Kraemer, Teichert, Kiewit, Walsh, and Aldridge and we are in the process of placing the rest. All 12 students will participate in a weekly construction internship seminar this spring with strong industry involvement. Our goal is to keep placing these students into heavy construction internships each summer as we add a new freshmen class each year.



Introducing two outstanding adjunct faculty



To help grow CEM, we have invited two experienced engineers, who are also dynamic instructors, to teach in the spring semester. Dr. Wylie Bearup was a Lieutenant Colonel in the Army Corps of Engineers and also the City Engineer and Street Transportation Director for the City of Phoenix. He will be teaching a unique course he has developed and taught for ASU called Public Works Capital Construction. Ian McDowell is a VP and Regional Director



for Sundt and a regular guest speaker for CEM. He will be teaching our core Construction Engineering Management course, CE381. We are grateful to be able to add instructors with this depth of experience to our program.



Associated General Contractor and Design-Build Institute of America Chapters

This semester included a great line up of speakers at our chapter meetings. Additionally, we held a *Rapid Resume Review* session in October prior to the career fair. Industry partners from M3, GLHN, Granite, and McCarthy met one-on-one with students in 15-minute intervals to provide rapid resume feedback. This session proved to be tremendously helpful and much appreciated by our students. In December members of our chapter joined the Arizona Builder's Alliance for their annual non-profit workday. Students helped paint an apartment at the Intermountain Centers for Human Development. Chapter meetings included:



- Ian McDowell, Tom Bersbach, Hudson Cox, and Brandon Martin (**Sundt**) – design-build delivery of the UA Chemistry Building
- Hunter Brown, Jesus Ruiz, and Mitch Sardo (**McCarthy**) – the UA Applied Research Building
- Alina Vo and Gabe Mitchell (Hensel Phelps) – careers in the construction industry
- Brandon Simao and Tyler Rue (**Kraemer**) – I-70 Twin Tunnels
- Shiann Claridge (**DPR**), Henry Tom (**Line & Space**), Dana Sylvester (UA PD&C) – UA Andrew Weil Center for Integrative Medicine



Industry Speakers & Construction Site Visits

This fall we have had a great line-up of industry speakers and construction site visits in *CE483 Construction Cost Estimating*



- Hunter Brown, Dave Hollenack, and Mitch Sardo (**McCarthy**) – Plan reading
- Rob Presuhn and Andrew Bailey (**iSX Solutions**) – Technology for office and field
- Alina Vo, and Gabe Mitchel (**Hensel Phelps**)-concrete takeoff and estimating
- Chris DeYoung (**JB Steel**) – Metal takeoff and estimating
- Arturo Aguilar (**McCarthy**) – Estimating a building envelope
- Michael Carroll (**Kiewit**) – Estimating with InEight
- Bob Martinez (**Granite**) – Estimating underground utilities
- Josh Marks (**RLB**) – Markups and contingencies



- Mike Goodwin (**Climatec**) – Estimating control systems
- Jonathan Johnson, Hunter Brown, Jesus Ruiz, Dave Hollenack, and Lee Alexander (**McCarthy**) – Site visit to the UA Applied Research Building
- Cory Thellmann (**Kitchell**) – Site visit to the UA Grand Challenges Building



Industry involvement helps keep the UA CEM curriculum relevant and keeps students motivated.

Thank you

This year I have assisted with the National Cooperative Highway Research Program (NCHRP) Project 20-44(42) [Agency Implementation of D-B and CM-GC Contract Administration](#). After developing two comprehensive guidebooks for NCHRP, we were tasked with developing and delivering eight unique two-hour training webinars focusing on the implementation of contract administration tools for highway projects delivered using design-build and construction manager/general contractor delivery methods. Over 300 people participated in the training with engineers representing 38 state departments of transportation. We will transition to consulting with a handful of state agencies in 2023.

Also in 2022, we saw the updating of the civil engineering student lounge, including upgrades to electrical and plumbing as well as new furniture, LCD monitors, and white boards. Thanks to Sundt for their leadership, design and procurement help from JKaiser Workspaces, assistance from Wilson Electric, Sierra Woodworks, Comfort Systems USA, the Facilities Company, and donations from many alumni and corporate partners.

The activities you read about in this update and many more are made possible by your generous donations and participation. We are grateful for your partnership.

Sincerely,

Dean Papajohn

Dean Papajohn, PE, PhD, ENV SP
 Professor of Practice
 Civil & Architectural Engineering and Mechanics
 December 21, 2022

Giving

You can give online at [Give Today](#) or checks can be written to the UA Foundation and sent to:

Johanne Ives, Aero & Mech Engineering Building, N515, Tucson, AZ 85721

Please designate your gift for either *CAEM Construction Engineering Management General Fund* (for current operating expenses) or *CAEM Construction Engineering Management Endowment* (for building a sustainable funding source for CEM). Automatic monthly or one time gifts can be set up.

