The vision of the Construction Engineering Management (CEM) emphasis at the University of Arizona is: connecting industry with students and students with industry. This academic year we made great strides in fulfilling this vision. The stories below highlight:

- students competing in design-build competitions,
- industry involvement in construction courses, and
- student construction internships and full-time jobs.

**Design-Build**

This fall we launched a Design-Build Institute of American - University of Arizona student chapter (DBIA-UA). Our student officers are Hunter Brown (president), Fernanda Fraijo (treasurer), and Robert Melvin (Secretary). Our officers attended a DBIA event in Phoenix and the chapter participated in a DBIA webinar. DBIA provided a generous grant to the chapter which helped fund student travel to the competitions our student members participated in this year.

- **2016 National DBIA Competition:** Two UA teams composed of civil engineering and architecture students competed in fall 2016. One team placed as a regional finalist and attended the DBIA National Conference in Las Vegas. Teams had 11 days to respond to a Request For Qualifications (RFQ) for a parking garage, recreational field, and classroom space on a small liberal arts college in Tennessee. Teams in the regional finals were given 11 days to respond to a Request For Proposal (RFP). Our students produced well-researched, professional looking proposals.

- **2017 American Society of Civil Engineering Pacific Southwest Conference Design-Build/Construct Competition:** This was the first year for this conference to hold a design-build/construct competition. With the experience our students gained in the fall, they were able to earn first place. The team prepared and presented a 24 page report including: team qualifications, project scope, design approach, SWOT analysis, work breakdown structure, schedule and staffing, materials and costs, and a quality management plan.

- **2017 Rooftop Garden competition:** Two UA teams composed of civil engineering and agriculture students competed in this competition sponsored by the University of Arizona Student Union Memorial Center. Both teams were short-listed in the top six out of 24, with one of our teams taking first place. Teams produced a design, budget, and maintenance plan for rooftop and patio gardens at the Student Union to supply food for the food pantry and the Pangea restaurant.
Construction Courses
This fall we taught *CE381 Construction Engineering Management* for the fifth time and this spring we taught *CE482 Construction Project Planning, Scheduling, and Control* for the second time. This spring saw the largest student enrollment in a construction class at UA with 29 students in CE482. This spring our guest speakers and construction site visits included:

- Adam Sedgeman (KE&G) – Project control
- Dave Weber (PMA) – Construction delays and claims
- Biosciences Research Lab – Matt Hunter (DPR) and UA

Next year we will be offering two construction courses in the fall and two in the spring.

Our construction students also have the opportunity to take *ENGR495 Engineering Leadership*. In this class students produce a leadership development plan to help guide their early career growth. Four alum have been assisting the class as mentors by meeting one-on-one and in small groups with the students. Our alum mentors include: Mike Nelson, Phil Hall, Barry Abbott, and Tom McGovern. The industry experience these mentors bring is incredible and students truly value the time they get to spend with these mentors and the other industry speakers.

Internships and Full-time Jobs
CEM is working on addressing workforce development for the construction industry, in heavy civil and building construction.

Undergraduate students are finding internships at companies like:


Our graduating seniors are finding full-time employment in construction at companies like:


One of our students, **Ana Rapallo-Padilla** is currently interning with Sundt on the I-10/Ina Road Interchange project. Ana is learning first-hand how a Construction Manager At Risk (CMAR) project is delivered. She has helped prepare a storm water pollution prevention plan (SWPPP) and much more. Ana says, ‘I knew that being able to work for a company like this would be both a challenge and a reward. A challenge because I strive to better myself every day to produce the quality of work that is generated at Sundt and a reward because after this internship, I knew I would learn invaluable experience from on-site field and office work in my area of interest.’”
This has been an active and gratifying year for CEM. In the coming year we look forward to expanding our construction course offerings and further developing our DBIA-UA Student Chapter and design-build competition involvement. Our goal is to make it to the Associate Schools of Construction competition in Reno in Feb. 2018.

We continue to seek donations for CEM from alumni, companies, and foundations. Currently these generous gifts are helping to cover the yearly operating expenses. Our goal is to establish a $5 million endowment that will provide sustainable funding for CEM into the future. Your gifts are making an impact on many students’ lives. Men and women in the CEM emphasis are learning about interesting and diverse careers in construction through industry professionals, courses, competitions, and internships. The CEM alum that have graduated in the last couple of years are telling us how rewarding they are finding their construction careers and how grateful they are to have found this path through CEM at U of A. Thank you for your generous support and the trust you have placed in us to prepare the next generation of engineers and constructors.

Sincerely,

Dean Papajohn

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