In July, the United States Agency for International Development (USAID) and Higher Education for Development (HED) awarded an $800,000 grant to fund a program entitled “Promoting Opportunities for Development, Education, and Resilience (PODER): Green Construction Institutional and Human Development”. A collaborative, cost shared effort with the Universidad Iberoamericana (UIA), Tijuana campus, Colorado State University (CSU) will contribute $200,000, and the UIA will contribute $23,000 to the project. CSU’s Department of Construction Management Assistant Professor Dr. Carla Lopez del Puerto will be the principal investigator with Dr. David Becerra, School of Social Work, and CM Department Head Dr. Mostafa Khattab as co-principal investigators.

The partnership between CSU and the UIA Tijuana campus will strive to address issues of rising illicit drug trafficking and use among Mexican youth by introducing them to entrepreneurship opportunities in green construction. The project is funded under USAID/Mexico’s Training, Internships, Exchanges and Scholarships (TIES) program.

Lopez del Puerto’s innovative application focused on the socioeconomic issues that face a particular group of poverty-stricken Mexican youth who neither work nor study. Due to a lack of technical skills required to make them productive members of society, these young adults are more susceptible to turning to the illicit drug trade. Lopez del Puerto notes that, “Without addressing the core social and economic issues, the revolving door of drug trafficking, substance abuse, and crime will continue to spin out of control. It is therefore important to provide those individuals with the skills necessary to secure gainful employment and resist involvement in illicit drug use or trafficking.”

The goal of the program is to use the construction industry’s potential of creating small and medium-sized businesses that employ adequately trained workers to improve the lives of underprivileged youth in Mexico. Graduates of the program will receive assistance in obtaining and retaining employment that will generate livable wages for themselves and their families. UIA itself will benefit through the development of instructional support materials, the addition of career assessment and counseling services, assessment and quality assurance of the program, development of marketing materials, and the establishment of a sustainable collaboration between UIA and various non-governmental organizations to assist program participants and their families.

Created by executive order in 1961, USAID is the principal United States foreign assistance agency that aids countries recovering from disaster, attempting to emerge from poverty, and advancing democratic reform. HED works with USAID to support the involvement of higher education in issues worldwide by funding partnerships that pair U.S. higher education institutions with higher learning institutions in developing nations.
Khattab Visits Industry And Alumni In California

“It takes a team to succeed.” This has been CM Department Head Mostafa Khattab’s mantra throughout his tenure as leader of CM as he strives to build the best team of faculty and industry to ensure the success of the program. CM celebrates a unique experience for students that pairs hands-on learning with access to the industry. Khattab spends significant time with the industry to make sure the curriculum built at CSU mirrors the industry’s needs and continues to produce quality graduates. “We have a tradition of delivering industry-ready graduates who have real-world experiences and the skills to make an immediate and lasting impact,” explains Khattab. “It’s my job to make sure our program continues to meet the industry’s expectations.”

Khattab, who accepted the role as Department Head in 2007, says that the Department’s graduates are highly recruited. Every student is required to participate in an internship prior to graduation, and some students complete more than one during their careers at CSU. The industry remains supportive of the department through these internships and involves itself in advisory roles and gifts to support scholarships and student competitions. In an effort to say thank you and continue building partnerships, Khattab often travels to visit alumni, donors, and industry members around the country.

In July, he traveled to California to visit with Beavers Trust, DPR Construction, Har-Bro and Webcor, as well as Bill Phelps, president of Joseph Phelps Vineyards. Visiting with alumni is also an important part of Khattab’s travels, and on this trip he caught up with David Droll (’92), VP of Har-Bro, Clyde Trego (’88), VP of West Coast Development for DCK Worldwide, LLC, and William Duff (’94), owner of William Duff Architects. The goal of these trips is to consult with the industry on upcoming needs or changes, which may alter the design of the curriculum. He also hopes to personally share the department’s vision for the future and obtain ideas for new opportunities to continue the program’s advancement as one of the best in the nation.

“We have accomplished tremendous goals in these last five years including the renovation of our Preconstruction Center, the establishment of a Heavy Civil Endowed Chair, and growing our Road to Excellence Fund for faculty and staff development,” Khattab continues. “But these next five years will prove critical as the industry is seeing many changes. Working with our partners to discuss these changes ensures that we are truly serving the industry.”

Senior Celebrates 15 Years Of CSU Service

Bolivar Senior, Associate Professor in the CM department, started working at CSU in 1996. August 2011 officially marked the fifteenth year of his tenure, and CM is pleased to celebrate this milestone with him.

“The past 15 years have been very gratifying,” says Senior. “I have witnessed the continuous improvement of our CM program and construction management as profession in general. We keep getting better students and faculty, our facilities are better than ever, and we have earned a reputation on campus for our excellent relations with industry. I feel fortunate for the opportunity to interact all these years with current and past department staff and colleagues. We have great chemistry as a group, resulting in the great things that the department has done over the years. I plan to stay with our CM department for many more years to come.”
Experimental Summer BIM Course Well-Received

This summer the CM department offered an independent study class titled “Building Information Modeling and Facilities Management”. The experimental course, put together by CM faculty Caroline Clevenger, included support and instruction by various members of industry: Blake Sabo of SHP Leading Design, Zack Mertz of Concept3D, Matt Hoff of Mortenson Construction, and Alan Fordham of The Weitz Company. Ten graduate and undergraduate students spent their Tuesday afternoons in the Preconstruction Center computer labs learning various software packages including Sketch-up, Revit, VicoOffice and Navisworks. “I enjoyed the class very much,” said Ben Hoffner, CM senior. “It was very helpful in that actual professionals in the industry got to come in and teach us a plethora of different software packages.”

Clevenger organized the class in collaboration with CSU’s Facilities Management department. At their recommendation, she selected the Natural Resources and Forestry buildings on CSU’s campus as real-world case studies for the course. The students first modeled the buildings in Sketch-up, and then used these three-dimensional models and additional two-dimensional plans provided by Facilities to create Building Information Models (BIMs) of the buildings in Revit. With the help of industry professionals, students learned how to manipulate and analyze these models using the VicoOffice and Navisworks software packages. According to CM senior Kayla Hines, “Revit and Navisworks are both powerful tools for the construction industry, but when you add in the capabilities of VicoOffice, this is amazing! It makes me wonder why anyone who does estimating or scheduling wouldn’t use this software. While the learning curve is very steep, I believe that teaching these tools is imperative to the success of the students in the Construction Management Program here at Colorado State University.”

The CM department hopes to use this experimental course to learn about and leverage ways to better integrate BIM into the curriculum. Faculty believe a collaboration between academia, Facilities Management and industry may be a highly effective structure for teaching this cutting-edge material. “We threw a lot at the students this summer,” said Clevenger, “and they did quite well learning a variety of new software programs as well as working in an integrated environment. I’m excited by what we have accomplished and what is to come.” She collected data on the course and will present results at the EcoBuild 2011 conference in Washington, D.C. in December.

Shuler Continues Asphalt Pavement Research

Scott Shuler, CM faculty member, completed the supervision of construction of two full-scale experimental pavements over the summer. One project is the first warm mix asphalt pavement to contain recycled asphalt shingles (RAS) in Colorado, and perhaps in the United States. The high percentage of RAS contained in the pavement is being evaluated as part of a grant funded by Boulder County in an effort to include more recycled waste materials in construction.

Shuler’s second full-scale experimental pavement is part of a study being conducted in cooperation with Jefferson County. This project includes two sites, one constructed in August and one which is as yet not laid. The pavement built in August will be studied in an effort to determine the cause of bumps and transverse cracks that sometimes occur in asphalt overlays placed over crack sealant. Current results indicate that breakdown roller type, speed and pavement gradient are factors in the cause of bumps. The second site, once constructed, will evaluate the effect of asphalt mixture design on bumps and transverse cracks.

Blake Sabo of SHP Leading Design teaches the Revit software to students in the BIM course
CM Student Spends Summer As Intern With NAHB

Only two students nationwide are selected each year for the opportunity to intern with the National Association of Home Builders (NAHB), and Brian Roling, a CSU CM senior, was fortunate enough to be selected. Roling spent eight weeks of his summer interning with the NAHB in Washington, DC as part of the NAHB Residential Construction Leadership/Internship Program. He learned about current issues that affect the building industry, particularly in residential construction, and spent time in the NAHB Research Center studying building products and management best practices. Roling also worked a short internship with a Washington-area builder for hands-on experience working in the residential construction field.

Roling is the current vice president of CSU’s NAHB student chapter, and he led the CSU NAHB competition team to its sixth place finish at the national competition in Orlando, FL, in January. An article published in the “Nation’s Building News,” NAHB’s official online newspaper, outlines the internship program and contains more information about both students selected this year.

The NAHB Residential Construction Leadership/Internship Program is funded by the National Housing Endowment and benefits students at universities funded by the Homebuilding Education Leadership Program (HELP). HELP’s endowment awards major grants to colleges and universities around the country to help them create, expand or refocus existing programs toward residential construction management. CSU was awarded a grant in 2009 to allow its strongly commercial-focused CM program to expand its residential curriculum.

Upcoming Events

CM Department Open House
The Department of Construction Management will host an open house for prospective students on Saturday, October 8, 2011 from 2:30 PM to 5:00 PM in room 122 of the Preconstruction Center on the CSU campus.

Second Annual Industry-Academia Research Symposium
Save the date for the Second Annual Industry-Academia Research Symposium! This year’s event is on Thursday, November 3, 2011 from 8:30 AM to 12:00 PM at AGC Denver. The theme will encompass Building Communities of the Future. Details will soon be available on the CM website.