Program helps students engineer brighter futures

Business leaders work with students to create real-world projects

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A group of teens with bright ideas got a little public recognition recently for their work in the fields of architecture, construction and engineering.

About 52 Des Moines metro high school students who are members of this year’s ACE Mentor Program of Central Iowa “graduated” during a recognition ceremony March 13. ACE stands for Architecture, Construction and Engineering, and the program pairs up high school students who have an interest in those areas with professionals who volunteer to work for 16 weeks with the teens on special projects.

James Britt, chairman of RDG Planning and Design, served on the organization’s board of directors this year. He said the mentoring project benefits all involved.

“The gist is that our collective industries want to engage high school students and persuade them to join us,” he said. “For us the benefit is attracting good talent, and our main conduit is through a mentoring set-up where students learn directly from people who do this every day.”

Students develop plans for mock projects that could work in the real world. This year’s challenge was to design, engineer and prepare construction schedules and estimates for an alternate commuting station in downtown Des Moines. Such a station would provide shower and changing facilities for people biking, walking or running to work, and a secure place to store their bike while at work.

The students were divided into three groups, and each developed floor plans, site utilization plans and learned how to orchestrate the construction of their buildings, Britt said.

Britt said the program “gives students a really good way to understand each discipline and how we work together. That gives them more of a comprehensive understanding of what our industry does.”

The central Iowa program is affiliated with the national organization, which was founded in 1995. It’s been in Des Moines for seven years.

Jill Boetger, with Confluence landscape architects in Des Moines, was a team leader, working with 17 students from four high schools. She said the program helps guide students as they explore a field they may want to study in college.

“This helps them make the best career choices,” she said. “It’s important to help guide them so they’re not spending that first year in college in the wrong field for them. This is a way to explore a field without making that financial commitment.

“The ones that stay with it tend to be the motivated bunch. We get pretty good interaction with them, and we try to put most of the activity in their control.”
Matt Russell, 18, a senior at North High School, has participated in the program for four years. He said it helped him decide on a career path — as a construction contractor.

"I want to be a problem-solver," he said.

Russell, the son of Jim and Lainey Russell, has enlisted in the U.S. Army. When he is discharged he plans to study civil engineering at Iowa State University.

"For the first two years I was all about the engineering," he said. "Then they needed some extra people on the contracting side of it, in construction. I volunteered and it turned out I really liked the construction side of it. I really think getting a degree in engineering will help me become a better contractor.

"Working on the project (this year) was a great experience," he said. "There’s a lot of hands-on things we got to do. You learn how the schedule works, how projects came out on time and the steps to make them come out on time."

Additional Facts

Participants

Students in the ACE Mentor Program of Central Iowa worked on one of three teams, assisted by several mentors who work in the fields of architecture, construction and engineering.

Ankeny High School: Paige Ahlrichs, Nicole Bramow, Tyler Broich, Austin Hanner, Morgan North, Sirina Reed, Jordan Ritland, Kelsey Russell, Cassie Seaman

Hoover High School: Corbin Faidley, Jeff Neel

North High School: Matt Russell

East High School: Joseph Bahnsen, Brittany Gronewold, E. Junior Kemdirim

Lincoln High School: Joseph Carpenter, Nicholas Mezera, Ross Nickey, Jesus Sierra, Matthew Thorpe

Roosevelt High School: Grace Ansah, David Bresley, Hans Messersmith Holth

Southeast Polk High School: Eric Cole, Devin Gaudette, Aaron Goodwin, Nettie Payne, Katie Smithart, Megan White


Urbandale High School: Brian Carrier, Garret Cook, Calvin Corell, Parker Howard, Tyler Imboden, Srdjan Pavelic, Brian Rye, Grant Siders

Valley High School: Jasmine Au, Abby Brown, Jake Campos, Jordan Hutton, Michael Keay, Matthew Olson, Andrew Peterson, Elizabeth Pusin, Allie Wood

ACE Mentor Program of Central Iowa board of directors scholarship, $2,000: Kelsey Russell, Ankeny High School

ACE Mentor Program of Central Iowa scholarship, $2,000: Megan White, Southeast Polk High School

Neumann Brothers Inc./ACE Mentor Program of Central Iowa scholarship, $2,000: Jasmine Au, Valley High School

Des Moines Construction Breakfast Club scholarship, $2,000: Joey Bahnsen, East High School

Master Builders of Iowa/Luke Altmix Simmons Foundation scholarship, $2,000: Cassandra Kern, Dowling Catholic High School