In the United States, convincing women to enroll into engineering programs is a challenge. Keeping women in these programs is no small feat, either. That’s why Pam Golubski, CIT’s Associate Director of First-Year Experience and Advisement, started a mentoring program that aims to retain female students, and this program could very well be another CIT first.

What is unique about the program, according to Golubski, is twofold: it targets first-year females and it features “in person” contact between mentors and their students. “A lot of top schools have female mentoring programs, but they are for older students or their programs are through online methods,” said Golubski, who investigated mentoring programs and their effectiveness in her pursuit of a Ph.D. in Instructional Management and Leadership. With support from the Alcoa Foundation, Golubski hopes to prove that if females are mentored during their first year of college, then they are more likely to remain in engineering.

A New Term, a New Program
CIT’s pilot program kicked off in August 2007, when females from the class of 2011 were sent an email, inviting them to apply to the program. Twenty-four students completed applications that collected information regarding their academic and personal interests. The next step was to find Pittsburgh-based female alumni, who wanted to take part in the program. “We then matched the students and alumni on a number of characteristics, the key ones being their major and then personality. We ended up with 15 mentors and 18 students in the program. Some mentors had two students,” said Golubski. “Our goal for the pilot program was 10.” Because of the interest generated, Golubski offered the program to as many of the students for whom mentors could be found. For the program to work, “alumni must live in Pittsburgh so they can meet one-on-one with the students.”

Once the students and alumni were paired, the first of several social events took place. Early in the fall, a welcome dinner was held and the students and mentors mingled. “The students got to meet 15 alumni, who were at different levels in their careers,” said Golubski. While the purpose of the dinner was for everyone to get acquainted, guidelines for the program were presented. Each of the students signed an agreement that outlined the terms of the mentoring relationship. “You don’t want students calling mentors about homework,” said Golubski. On a less formal level, the students and their mentors learned about each other and shared contact information. For the next few months, they would email each other or meet. The program provides gift cards to pay for an occasional cup of coffee or dinner. “The students and mentors determined how often they would meet,” said Golubski.

Throughout the year, a variety of events were held, providing the entire group with opportunities to congregate. (Some of the events, such as mentor-led networking workshops, were open to all first-year students.) The mentoring initiative culminated with an activity called the

The mentoring program has been a great way for me to meet others, whether it be other girls in the program or the mentors. It’s been great having someone to talk to who has already been through what I’m in the middle of.

Helen McKay Piper, Student

Pam Golubski
“Common Reading Experience.” All of the participants received a copy of *Women Don’t Ask*, by Carnegie Mellon Professor Linda Babcock and Sara Laschever. In April, Ayana Ledford, Director of Progress in the Heinz School, met with the women to lead a discussion on negotiating skills. According to Golubski, the goal was to select a book that “would benefit both the alumni and the students.”

With the academic year just ending, Golubski has yet to formally assess the effectiveness of CIT’s pilot program, but she believes that it has been a positive experience for the students. They gained access to female engineers who understand CIT’s culture. On the flipside, Golubski said, “The alumni are getting a lot out of the program, too. It energizes them when they see what the students are doing. It reminds them of their college days. They look at the students and think, ‘That used to be me. Look where I am at now.’ A lot of the mentors said that they would do it again next year.” Speaking from her own experience, Golubski added, “In the end, I hope the cooperative spirit of mentoring will create supportive relationships among students and professional mentors and help retain and advance women in engineering.”

If you are a female, CIT graduate who lives in Pittsburgh and would like to mentor a first-year student during the 2008-2009 school year, please contact Pam Golubski by email: pam33@cmu.edu.

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Air Quality Engineer, Allegheny County Health Department

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I was very excited about setting up and helping with this mentoring program, if just for the fact that I didn’t have anything like this as a student. It would’ve been nice to have someone who had already been through the program to give advice on what to expect from classes, what things employers are looking for, or just some moral support — especially from a woman. I see this as a chance to offer those things to new students, as well as a way to foster a professional networking relationship early on.

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Helen McKay, Jo Ann Truchan, Gabrielle Batton
In celebration of National Engineer’s Week, CIT students took part in a community-wide initiative to introduce young people to engineering.

On February 15 and 16, 2008, the Carnegie Science Center in Pittsburgh, Pa., held its annual National Engineer’s Week event, which by design inspires young people to explore engineering. Local companies, professional societies and universities are invited to participate, and of course, CIT could not turn down an opportunity to teach kids K-12 about engineering. Student volunteers along with faculty representatives from nearly every department created clever experiments that entertained school kids and forced them to think. For example, using paper cups and plastic bags, youngsters tackled design problems by building parachutes that (in the perfect world) would slowly float to the ground when tossed from a balcony. In another popular activity, kids got to see (and eat) marshmallows that were dropped into liquid nitrogen.

Annette Jacobson, a professor in Chemical Engineering who organized the event for CIT, says that volunteering at the Science Center is rewarding, and that “everyone has fun.” Noting that the event is an important outreach opportunity, she says “In addition to showcasing the engineering disciplines through hands-on activities, we provide information about CIT and Carnegie Mellon to high school students and their parents.”
Floating magnets, polymer slimes and objects floating (and sinking) in tubs of water were some of the experiments kids could check out.