

PACIFIC NORTHWEST CLEAN WATER ASSOCIATION

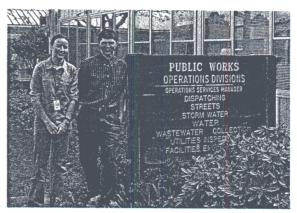
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## CECOP Connects Students to Engineering Firms

By Ken Roley, Facilities Engineer, City of Salem Public Works Department

Most engineers still remember the fear, excitement, trepidation, and panic of their first real engineering job. Think what an advantage it would have been to have your first experience as part of your college curriculum. As a result of a cooperative work experience program, that is just what is happening for a select group of civil engineering students at Oregon State University (OSU).



Rachel Poole and Benjamin Linzy, CECOP interns for the City of Salem Public Works Department in 2003.

The Civil Engineering Cooperative Program (CECOP) is a joint partner-ship with area governmental agencies and consulting firms. This successful program has been in existence for over five years and is part of the much larger Multiple Engineering Cooperative Program (MECOP) that has provided meaningful work experience to engineering students in 13 different disciplines for 25 years. Currently the CECOP program has 14 member companies and places 35-40 students each year out of the approximately 220 junior and seniors in Civil and Environmental Engineering.

Students apply for the program in the spring of their sophomore year. If they are selected for the program, they are chosen by the member companies and committed to two six month internships during their junior and senior years. If possible, students split their internships between *(continued on page 2)* 

government agencies and consulting firms. Each student is provided a "mentor" by the company, who helps guide and coach the student during their internship.

This type of real work experience takes place in an environment where jobs and an intern's abilities are closely matched, according to Gary Petersen, MECOP/CECOP Program Director with the OSU College of Engineering. Students are screened, interviewed and prepared. Industry "mentors" are trained in how to work with the students. Both student and the company are repeatedly evaluated and adjustments made as the internship progresses. At the end of the internship, students provide feedback to peers about their successes, failures, and experiences.

Students, Petersen said, get work experience, learn their strong and weak points, make informed course selections, help pay for their education, are more motivated in class, and develop maturity beyond their years. Member companies provide feedback to the university curriculum, gain a pool of well trained engineers, get a healthy injection of youthful enthusiasm and a preview of potential employees in a real work setting. In the 25 year history of the MECOP program, over 75% of the students are hired by one of the companies that they interned with when they graduate. The university keeps its curriculum current, develops a bridge to industry, and provides an up-to-date educational experience for its students that wouldn't otherwise be possible in many fast changing professions. Clearly the CECOP program is a win-win-win situation!

According to Gregg Thompson with CH2M Hill, "CECOP is a powerful cooperative program that provides great benefits for both the member companies and the students. After six months together, both the student and the company will know if there is long-term potential in an employment relationship. These are top notch students who will impress you with the quality and quantity of their work. They are really value-added. And, I think it's important for each of us to provide opportunities in our profession for young engineers to develop an appreciation for the career they have chosen."

What impresses me the most is the tremendous capabilities these students have. They're bright, energetic, and eager to learn. We have been involved in the CECOP program for four years, and haven't had a bad experience. We have had students leading fish passage investigations, looking at alternatives for abandoning sewer pump stations, working with hydraulic computer models, and designing repairs to our sewer and storm drainage systems. The students get excellent work

experience, earn money to help pay for their college education, and help us keep up with our work load.

The CECOP program is supported by the member organizations and doesn't rely on any state funding. Currently there simply are not enough member companies to provide positions to match the number of highly qualified students available.

"There's not another program like this, period, and we would like to see the program continue to grow", said Petersen. It's not unrealistic to envision the CECOP program serving twice as many students within the next five years.

## Member companies include:

Brown and Caldwell	David Evans & Associates
CH <sub>2</sub> M Hill	Kennedy/ Jenks Consultants
City of Eugene	Montgomery Watson Harza (MWH)
City of Portland	OBEC Consulting Engineers
City of Salem	Washington County
City of Stayton	W&H Pacific Inc.
Clark County	WRG Design, Inc.

Gary Petersen and other members of the board are available to visit with your organization if you are interested in learning more about the CECOP program. If you would like more information please contact Gary Petersen at (541) 737-3210 or Gary.P.Petersen@orst.edu.