

Co-op students bring enthusiasm to JSC, get experience in return

By Lisa Tidwell

Karen Nyberg still recalls how she entered the gates of Johnson Space Center excited, but a little overwhelmed, to begin her work as a Cooperative Education (co-op) student.

It was January 1991 and the University of North Dakota junior was joining the Automation and Robotics group. Upon arrival, she was given a project: The Robot Friendly Probe and Socket Assembly. It eventually led to a patent.

After her success here at JSC, that co-op went on to earn her doctorate and, nine years later, started Astronaut Candidate Training in August 2000.

This is just one of the numerous success stories to come from the JSC Cooperative Education Program in its 41-year history. However, students are not the only ones who benefit from the program; JSC team members also benefit from the talents of young minds.

"The students' enthusiasm helps JSC continue to be a great place to work," said Kim Wilson, a three-time co-op mentor in Human Resources. "It is an outstanding program that produces loyal JSC employees."

Since its conception, NASA has relied heavily on its co-op program as a source of potential employees. Co-ops are vital to the Center's continuing commitment to technological advancement and excellence.

A valuable JSC resource

The JSC Cooperative Education Program began in March 1961. Today, Co-op Program Manager Bob Musgrove runs it with the assistance of Sharon Evans. Approximately 160 students, representing more than 50 schools, are in the program.

The majority of co-ops are undergraduates majoring in engineering, although a limited number of business and computer science students, as well as graduate students, are in the program. The application and interview process is highly competitive: Typically more than 800 resumes are received each year for 50 new co-op positions.

To qualify, an applicant must be a full-time student at a four-year college or university and maintain at least a 3.0 grade point average with the usual GPA being closer to 3.5. "Most of our co-ops are overachievers," Musgrove said.



NASA JSC 2002e33647 photo by Bill Stafford
Bob Musgrove (right) and Sharon Evans coordinate the Cooperative Education Program. Here, they are shown being honored by the students for their hard work and dedication.

treadmill problem is being developed by student Dean Blom, while Public Affairs co-op Julie Burt develops content for the *Horizons*, a spokesperson's guide for the ISS.

The students work in entry-level positions in human resources, public affairs, mission operations, crew training and every aspect of science and engineering. Musgrove said co-ops typically change divisions at JSC with each tour, which helps them find the best place for them at the Center. After graduation, co-ops can go on to many roles within NASA.

"(Co-oping) gave me an opportunity I might not otherwise have had," said former co-op and current JSC Newsroom Chief Eileen Hawley. "The Center thinks highly of the people that come into the co-op program."

Students have worked hard over the years to gain that respect. "The co-ops tend to exceed our expectations of a student employee," Musgrove said.



NASA JSC 2002e33645 photo by Bill Stafford
Co-op Louis Malone II, left, works with his mentor Mike Belansky in the Space Station Training Division Project Office. Prior to his JSC co-op opportunity, Malone was a computer science instructor at University of Houston-Downtown. 'I will never forget how much credibility the people in my area placed upon me,' Malone said.



NASA JSC 2002e33644 photo by Bill Stafford
Jaime Strandmark, at right, an aerospace engineering and mechanics senior at the University of Minnesota, is completing her third and final tour at JSC. Besides helping train the crew of STS-110/8A for their space walk activities, the two-time world champion trampolinist Strandmark is currently training for the 2004 Olympics in Athens. She is pictured here with her mentor, Dana Weigel, and Astronaut Michael Lopez-Alegria (Captain-USN).

A special bond

Co-ops could not do all of these projects alone: Mentors are the key to success for the co-op program. The students in the program are paired with mentors to help them navigate through their tours. Mentors help foster a positive learning experience for their students.

This relationship benefits the mentor as well as the student. The mentor develops coaching skills important to success as a supervisor, and gains satisfaction from developing new talent. Through mentoring, employees can shape the future of their organization and influence a co-op's career path.

To show their appreciation, co-ops can nominate their mentor for a mentor award.

The selected mentors are included in the Co-op Mentor Hall of Fame, which is located at <http://coop.jsc.nasa.gov/mentor/halloffame.htm>.

"It is a win-win situation," said former co-op Brad Strong of the Systems Training Branch. "Not only do the students get a great experience, they produce products." ♦

To learn more about the co-op program, visit <http://coop.jsc.nasa.gov/>

The life of a co-op

A co-op also must be available to complete three rotations at JSC prior to graduation. Those work tours provide the student with valuable, hands-on work experience in between semesters at school.

For example, co-op students Nick Skytland and Jessica Bicks are developing a better way for astronauts to shower during their stay aboard the International Space Station. New hardware to fix the ISS's

A CLOSER LOOK: ASTRONAUT JANICE VOSS



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Janice Voss worked with parachute pyrotechnics when she started at NASA as a Cooperative Education student in 1973.

Shortly after starting, she was moved to Bldg. 16 and the Shuttle Avionics Integration Lab (SAIL) where she wrote code to simulate the environment that the shuttle would see in flight. Voss worked five co-op tours while obtaining her bachelor's degree from Purdue.

In 1991, after earning her doctorate from the Massachusetts Institute of Technology, Voss was selected as an astronaut. Today she flies in the SAIL facility where her environmental code is still used. Dr. Voss has stayed involved with the co-op program by renting rooms in her home to students.

"The main difference is the program is more socially organized, there is more bonding between the students," she said.

Even after nearly 30 years since working as a co-op, Dr. Voss said, "The jobs are very similar; the students are still doing real work."

Get to know our co-op students! Read their biographies at: <http://coop.jsc.nasa.gov/biography/biographies.htm>