

A "Co-op"

PHOTOGRAPHY BY
JOHN Dowling

Syracuse University students gain valuable work experience through co-op programs—and often learn whether they're on the right professional track

Arun Chawan '00 hadn't planned to take part in the Cooperative Education Program at the L.C. Smith College of Engineering and Computer Science (ECS), but changed his mind after his brother, Ajay Chawan '96, encouraged him to try it. Chawan is glad he took his brother's advice—the opportunity led to an exciting stint as a research co-op student at NASA Langley Research Center in Hampton, Virginia. "Langley does aeronautics research involving airplanes, helicopters, and wind tunnels," says Chawan, who majored in aerospace engineering. "Working there was a great experience, a lot of fun. The good thing about the Langley co-op program is that there are other students, so it's not just you and a bunch of professionals."

Cooperative programs, offered by ECS, the College for Human Development, and the School of Information Studies, give students a chance to try out their chosen fields while they are still in school and sample what life would be like as, say, an engineer, a store manager, or a resource-management specialist. The programs are a way to "test drive" a career, an opportunity for students to apply the knowledge they have spent countless hours absorbing. And though the terms "co-op" and "internship" are sometimes used interchangeably, there is a difference, according to Debra Eischen, director of career planning at the School of Information Studies. "Normally, an internship implies a shorter work experience and one that is non-paid," Eischen says. "A co-op implies a longer work experience—a semester or two, perhaps even three—and those are normally paid. It is usually a full-time work experience."

At Langley, Chawan performed tests and then did statistical data analysis. He worked with Kevin O'Brien, a senior research scientist and aeroengineer who studies fatigue and fracture of composite materials used on helicopters. Barry Davidson, a Meredith Professor of Teaching Excellence in ECS's aerospace engineering program who

knew O'Brien through professional societies, facilitated Chawan's internship. "Barry told me he had a student interested in doing a co-op with us, and asked if we were interested," O'Brien says. "I knew Barry would send us someone good. We said, 'Yes,' and it turned out to be a win-win situation. Co-op students help us by giving us more bright, enthusiastic people working on a project. At the same time, they gain real-world experience they might not get otherwise."

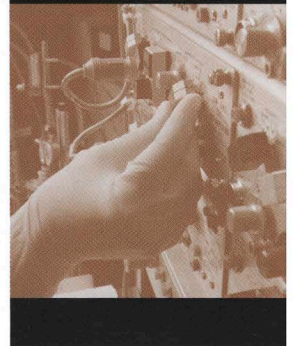
O'Brien and Chawan also collaborated on a paper about fatigue of composites that they presented at an international conference in Williamsburg, Virginia. Such an accomplishment would not have come Chawan's way had he not worked at Langley. "It's a little difficult for an undergraduate to have a publication before he graduates," O'Brien says. "But Arun will have that, which will help him when he's looking at graduate school. He's curious, a self-starter, with the kind of attributes we look for not just in co-ops but in any employee."

For Chawan, who wants to earn a Ph.D. and join NASA's space program, the co-op provided plenty of challenges. "One of the biggest changes is working a 40-hour week," he says. "There's also the experience of living on your own, in an environment completely different from school."

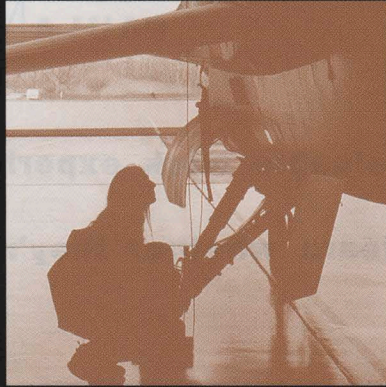
As a co-op student in the New York City buying office of upscale retailer Macy's, Alona DeBerry '00 discovered that the work was much what she had expected: fascinating, fast-paced, and exacting. She also found that in the highly competitive world of retail, having a crystal ball to predict future trends would come in handy. DeBerry, who majored in retailing/marketing in the College for Human Development and the School of Management, worked with a buying team in the Better Petite Collection department, helping choose stock for more than 80 Macy's stores along the East Coast. "Everything is done so far

CAREER

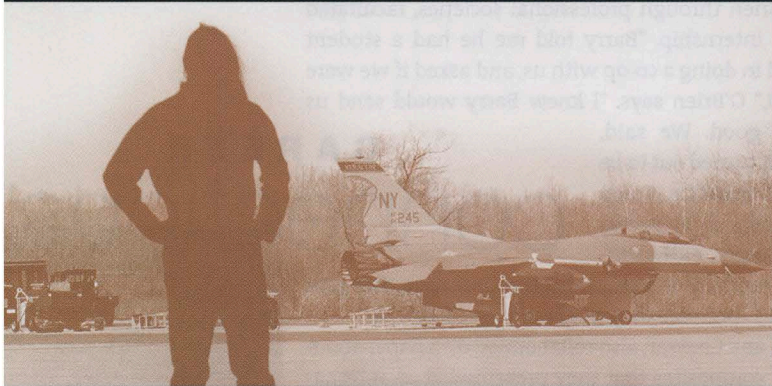
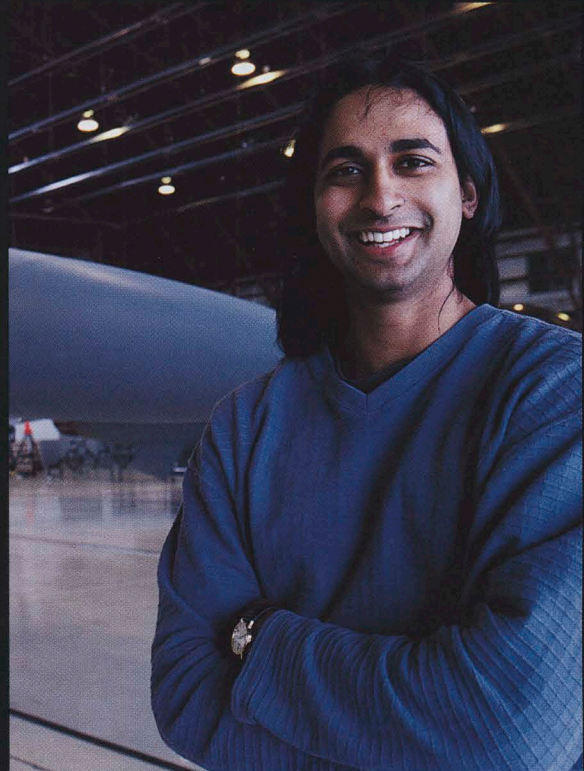
connections



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E X P E R I E N C E



Aerospace engineering graduate Arun Chawan '00, pictured here examining the 174th Fighter Wing's F-16 jets at the Air National Guard Base at Hancock Field in Syracuse, had a rewarding co-op experience at NASA Langley Research Center in Virginia.



Retailing graduate Heather Mitton '00 learned the ins and outs of the retailing business working at The Finish Line in Syracuse's Carousel Center. Store manager Joe Castaldo, top right, says the co-op benefited both Mitton and the store.



ahead of time it's unreal," she says. "We put Labor Day ads together in July and had to figure out what items to feature, what would sell months away. Our choices were based in part on past experiences, but also on a lot of intuition."

All retailing students in the College for Human Development must complete full-time work requirements in their junior or senior years, according to Meg Osborne, the college's director of career development. "The primary purpose of the program is to help students apply what they have learned in the classroom and develop managerial and interpersonal skills we can't necessarily teach," Osborne says.

That on-site, hands-on experience is a big plus to anyone interested in the retail field, says DeBerry. "The program was excellent," she says. "I found out that being a buyer is not all glamorous—there are a lot of little details you have to see to. One of the best things anyone in retail can do is get an internship. You meet so many people and make connections. And at the end of my co-op, Macy's extended a job offer and I'm considering it."

A network of connections is one of the most important benefits a co-op program offers to students. "Our program has a 98 percent placement rate," Osborne says. "Many of those job connections come from the co-op experience."

Retailing major Heather Mitton '00 also had a job waiting for her at graduation, thanks to a co-op experience at The Finish Line in Syracuse's Carousel Center. "I got a lot of experience in store management," Mitton says. "I ran my own department, had my own employees, and was in charge of their training and productivity. It was really valuable."

Mitton was the store's first co-op student, a "test subject," according to Joseph Castaldo, the store's general manager. He met Mitton at a job fair and was impressed by her energy and intensity. "Having interns is a way to build our company from within," Castaldo says. "Heather was a solid candidate and wasn't afraid to get involved with any aspect of store management. Everything for her was 'Yes.'"

Castaldo plans to have more SU co-op students and will make some changes to The Finish Line's program based on feedback he received from Mitton. Pleased with the outcome of the "test case," he believes the experience benefited both the student and the company. "The co-op program enables the student to get a head start on a career," he says. "And I get a quality person ready to run a store."

Finding competent managers is imperative for retailers like The Finish Line, which has 405 stores in 39 states and continues to expand. The College for Human Development's co-op program helps meet the store's need for qualified personnel. "The service industry has been growing for a long time and retail leads the pack," Osborne says. "I think there's a crisis at the mid-management level now. Retailers bend over backward to attract bright, well-educated people willing to go into the field."

Samuel Clemence, a Meredith Professor of Teaching Excellence in the Department of Civil and Environmental Engineering and interim director of ECS's Cooperative Education Program, is a strong believer in co-ops. "It does help students—especially young students—clarify their thinking about what they want to do," says Clemence,

who was a co-op student in his undergraduate days. "When they graduate, they are several steps ahead of their colleagues, because they've been in the working world. They understand what engineers do. It's a wonderful experience."

Co-ops are optional for ECS students, who may apply to the program in the fall of their sophomore year. "The students have to be interested in doing a co-op," Clemence says. "They have to apply for it and be accepted."

Clemence and associate director Karen Kenty work with students to help them find jobs that will interest them. "We don't secure the jobs for them—they interview with employers, who then decide whether to hire them," Clemence says. "We bring a number of employers to campus to interview students. The industry here in Central New York is very supportive and wonderful to us—companies like Eastman Kodak; O'Brien & Gere; Blasland, Bouck & Lee; Lockheed Martin; GE—they help make our program a success."

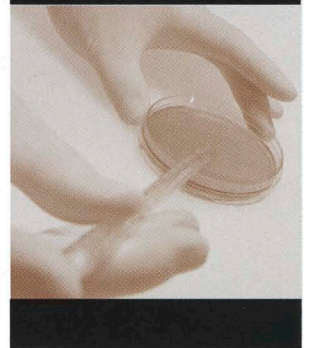
To get ready for work, co-op students participate in a series of workshops, which cover writing a resume, sharpening interviewing skills, researching companies of interest, and workplace ethics. "We didn't start the ethics workshop until the program had been in place several years," Clemence says. "We discovered that students had problems with ethical issues that came up. The workshop is designed to help them with those problems." Students may encounter such issues as properly reporting travel expenses or overtime work, Clemence says, but they're also taught to be aware of engineering-related ethical conflicts that may involve public safety. One example used in the workshop is the space shuttle *Challenger* disaster. Engineers argued that the launch should be postponed because the cold temperature would jeopardize the fuel-delivery system, while managers pushed for the launch to gain publicity. "The managers overruled the engineers, thinking they were too conservative," Clemence says. "And we all know what happened."

About 25 percent of ECS students take part in co-ops. Clemence would like to see that number increase and is changing the program to encourage greater participation. "When we started the program, our goal was for the students to participate in several co-op work blocks, each one lasting a semester, and still graduate with their class," he says. "We got away from that for a time—we went to a three work-block experience and found the students weren't as happy, or didn't complete the program." To remedy the situation, Clemence plans to return to the two work-block model and make the program more flexible.

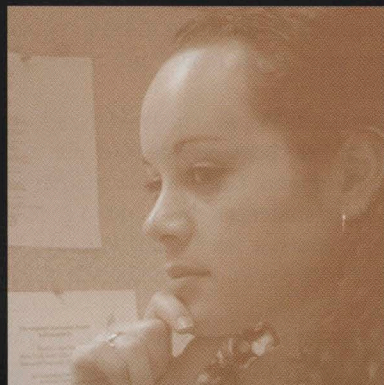
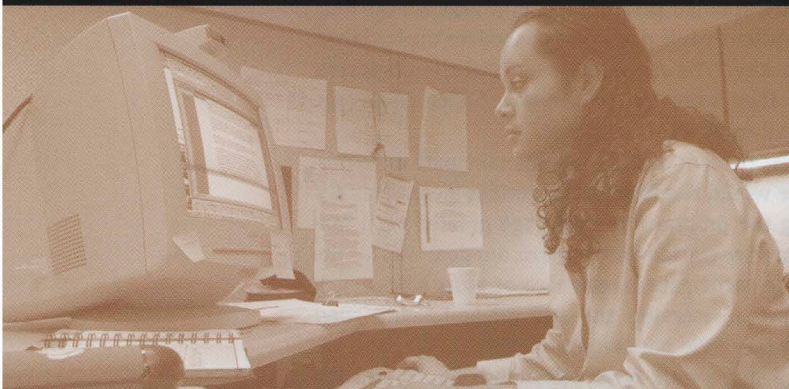
Adrienne LiBritz '00, who majored in civil engineering, says some of her classmates decided not to do a co-op because a third work block meant another semester in school. "A lot of students didn't want to go to school over the summer, which is what I did," she says. "But I don't understand why someone wouldn't do a co-op—it's a great program."

LiBritz spent two semesters at Stearns & Wheeler, a firm of environmental and civil engineers and scientists in

HANDS-ON experience



Engineering graduate Adrienne LiBritz '00 worked on projects involving wastewater treatment, solid waste, and water treatment at Stearns & Wheeler, an engineering firm in Cazenovia, New York. Karen Kenty, associate director of ECS's Cooperative Education Program, lower right, discusses LiBritz's work with her.



Information studies graduate Cinthya Aguilar '00 says her cooperative experience with NYSERNet, a local Internet development company, prepared her for the work world.

Cazenovia, New York. During her co-op, she worked in three departments: wastewater treatment, solid waste, and water treatment. "The people at Stearns & Wheeler are great," she says. "They always have students there and move them around so they can get a taste of each department. It helps students become more well-rounded."

LiBritz found that the work she did at Stearns & Wheeler not only reinforced what she had learned in her studies, but also gave her a head start on coursework. "Before I worked there, I had never studied hydraulics," she says. "It was so much easier for me to understand when I came back to school and took the hydraulics class."

Beth Ann Smith '85, G'91, project manager at Stearns & Wheeler, says her firm uses co-ops as part of its recruiting effort. Her first co-op student, David Prickett '98, currently works for the firm as a resident project engineer in Massachusetts. "I'm a big fan of the co-op program," Prickett says. "I'm using everything now that I learned in school and as a co-op student—client-serving responsibilities, specifications, equipment. When you are in the field, you can really put it all together."

The co-op program helped Prickett adjust from college student to full-time employee. "I found the transition very smooth because I had already been exposed to the business world," he says. "Being in a co-op is such a good deal. It doesn't cost anything, and you might as well take advantage of opportunities that are there for you at school."

The environmental engineering firm Blasland, Bouck & Lee has offered co-op jobs to SU students for a number of years, according to vice president David Hale G'90, an enthusiastic supporter of the program because of his own co-op experience. "The co-op helped me determine what my career would be," he says. "I thought it would be valuable for our organization to extend that offer to students."

Hale laughs when he recalls the unexpected outcome of his co-op experience. "I actually found out what I didn't want to do in life, kind of the opposite side of the coin," says Hale, who discovered during his co-op that civil engineering wasn't a good fit for him. Because of that realization, he refocused his efforts and became an environmental engineer. "Many students incorrectly think that the purpose of co-op is to gain experience so you can get a better job," he says. "I stress to the students that it's really a learning experience and you may learn that you don't like a particular area's offerings. I've had students come here who have trouble with the 40-hour, 9-to-5 work week. Often I tell them they might want to be in a computer applications environment where they can work out of their home. People spend at least 40 years at their job and they should be sure they like it."

The only regret Cynthia Aguilar '00 has about her co-op experience is that she didn't start sooner. "I encourage students to start in the co-op program early, in sophomore year," says Aguilar, a School of Information Studies graduate who interned at NYSERNet, an Internet development company in North Syracuse. "I recommend it to the maximum—you're better prepared when you graduate. The opportunities to work in a co-op are there—you just have to be a self-starter and find out about them."

Undergraduate students in the School of Information Studies are not required to do a co-op, according to

career planning director Eischen. Those who do are allowed to earn up to 12 credits. Graduate students in the School of Information Studies must do a co-op as part of their exit requirement. "The school encourages all students to get hands-on work experience," Eischen says.

Most students work full time during the summer, and put in 15- to 20-hour weeks at the co-op job during the school year. "The whole purpose behind a co-op is that students really need to be more marketable," Eischen says. "If they just graduate with a degree, their degree is excellent, and they have an excellent background and grasp of the field. But they do not have the added attractiveness of a work history in the field."

The school's graduates have a range of job opportunities from which to choose, including information specialist, knowledge manager, database developer, web site developer, systems analyst, project manager, and librarian. In such an open field, having practical experience—such as a stint at a co-op—helps students narrow their areas of interest.

That's exactly what happened to Azeem Bandukwala G'00, who came to SU for graduate work at the School of Information Studies after earning a bachelor's degree in his native India. Bandukwala, who received a master's degree from SU in information resources management, worked for almost a year in the technical publications office at Carrier Refrigeration Operations, a division of Carrier and United Technologies. "My work at Carrier allowed me to know what I want to do in the future," Bandukwala says. "Before I joined Carrier I was not really sure what kind of job I wanted."

At Carrier, he developed and maintained a database for the publications department and helped build an internal electronic commerce web site that allows dealers to order items over the web. "All the work I did at Carrier was real and very useful to them," Bandukwala says. "And that made me feel good. My supervisor, Joan Pierce, was always there to guide me if I needed anything."

According to Pierce G'94, manager of publications at Carrier, her office sends out thousands of pieces of information every week to people worldwide. Until a few years ago, the mailing list and other information were kept on hard copy. The computerized database Bandukwala developed was an important improvement and helped streamline the office's operations. Bandukwala also worked with the company's systems department to make sure Carrier's Internet site was user friendly. "Azeem has a very good 'big picture' perspective," Pierce says. "He brings in a lot of the new technology that he hears about at school. That's really the beauty of having an intern—someone from the college who keeps track of the latest technology and brings the ideas to us."

From Bandukwala's perspective, his hands-on work at Carrier enhanced the knowledge he gained at school. "When you are in a school and exposed to the best technology, you don't always know how it is used in a practical setting," he says. "I had the technological expertise from my classes, but the co-op helped me really use it. It gave me an avenue to another world."

ON-SITE training

