How do students get team savvy?

It's always been tough for graduates to adjust to the first job out of college. It's not easy to take years of theoretical course work and apply them to a real industrial environment. But now, new hires face additional challenges as they start jobs that require them to work effectively on cross-functional teams. As new employees, few have had the opportunity to hone the skills necessary for working in these groups.

What's more, the tenets on which teams are based are often contradictory to the doctrine for university success. In college, students spend years focused on one discipline, creating a mind-set around biochemistry or chemical engineering, for example. And all work is done independently. "Success is based not on how you cooperate with your peers but on how you compete against them," says Eduardo Baralt, a lead research chemist for Chevron Chemical's Petrochemical Technology group. In contrast, when these students start a corporate job, they are usually assigned immediately to a team that requires them to view problems across disciplinary boundaries, work closely with others, and share their knowledge in order to succeed, he adds.

However, there are ways to alleviate that culture shock. Students can get actual hands-on experience with cross-functional teams by participating in work-study programs. Chevron Chemical, for example, offers cooperative programs for students at the University of Houston's downtown campus and Texas A&M. Both sides benefit in the deal, Baralt says. "Students gain experience working on a team; we gain additional resources for projects as well as a chance to know people we might want to hire when they finish school."

Students at the University of Wisconsin, Madison, can gain experience working on a multidisciplinary team by participating in a unique Technology Enterprise Competition. Now in its third year, the competition requires students to form cross-disciplinary teams and create a business plan for a new technology-based business. Each team must include at least one student with a science or engineering background and one student with a business background. The final plans and presentations are judged by a panel of entrepreneurs, venture capitalists, and business professionals.

The competition is sponsored by the Technology Enterprise Cooperative, a University of Wisconsin, Madison, campuswide organization supported by the College of Engineering, School of Business, and College of Agriculture & Life Sciences. The cooperative's mission is to give faculty and students the opportunity to experience the technology-based entrepreneurial process firsthand.

Chemical engineering students made a showing in the 1999 competition on a team that tied for second place. That group developed a business plan to license technology and reprocess the U.S. government's piles of uranium hexafluoride into useful products.

"We have found that many students do not have an opportunity to interact with peers from other disciplines," says Margaret Tongue, director of the student leadership center. "Yet when they go out into industry, they will most certainly be working with these other disciplines at some time. The team skills they learn in this competition will allow them to build connections to other disciplines" that may be valuable later.

The competition is also meant "to foster and develop creativity, innovative thinking, and an entrepreneurial spirit in our students," Tongue says. By participating in the competition, students enhance their creative problem-solving skills and gain experience in building teams, applying knowledge, and developing new
technology-based ventures. In short, it prepares students for a future in a competitive industry in a way that university course work cannot.

That kind of experience is valuable when it comes time to secure a job. Those who recruit and hire chemists say they favor candidates who have experience working alongside scientists in other disciplines or with people outside the research realm. But they are quick to point out that valuable team experiences can occur outside the academic or industrial environments. Students can demonstrate an aptitude for teamwork in a variety of settings.

Often, summer job experiences give students insight into how teams work and allow them to develop skills that translate into the business world, says Martha Caughey, human resources manager for Abbott Laboratories' Diagnostics Division. She recalls a candidate who had gained valuable team experience as an assistant manager at a fast-food restaurant. "On a daily basis, he had to clearly communicate the expectations for each employee, maintain productivity, and resolve conflicts. Even though his experience was not in an academic or industrial setting, he was able to demonstrate all the traits we look for in a great team leader."

Extracurricular activities can be another avenue for building team-oriented skills, says Elizabeth Gallimore, a human resources project analyst for Chevron Chemical. When recruiting, she looks for candidates who have served on teams in school or in the community. In the past, she has been impressed with candidates who have done missionary work, built houses for the homeless, or worked with disadvantaged children. Gallimore notes: "When a candidate stands for values like protecting the environment, giving back to the community, and helping the less fortunate, we assume that they have humility and compassion--traits that can be attractive in team members and leaders."

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