Co-op Program Provides Experience, Learning—and Jobs

Co-op Learning at UMass Lowell Is Expanding, Offering Students More Industry Experience and Better Prospects for Higher-Paying Jobs

In spite of the struggling economy, UMass Lowell senior Liam Driscoll already has a full-time job waiting for him. Similarly, Greg Pigeon, Phayhean Soo and Nicholas Illsley, among others, parlayed their summer work experience into ongoing employment during the academic year.

What’s their secret? Co-op learning.

These students were among the 26 plastics engineering majors who had their first official co-op placements this summer. Although co-op placements and internships have long been available to students, the plastics pilot program begun last fall added new features. Students attended professional development seminars before and after the placement and received on-site visits from faculty advisers during the placement.

“Talking about the summer work experience really helps you understand how what you learn in class applies to the workplace,” says Illsley, who will work part-time this year with his co-op employer, Navilyst Medical in Marlborough.

There were other benefits for Driscoll, whose co-op placement—and full-time job, come summer—was with Newell-Rubbermaid in North Carolina.

“The opportunity to travel was fantastic,” he says. “Plus, I felt good that the projects I worked on meant something—one of them is now scheduled to hit the marketplace at the end of 2011. And I loved the people I was working with.”

There’s a big economic benefit to co-op, too.

Diane Hewitt, of the UMass Lowell Career and Co-op Center, reports that nationally “co-op is a differentiator for people entering the workforce. On average, their starting salaries are $8,000 higher than for comparable new employees without co-op experience.”

So what’s in it for industry?

“Industry is really ready for co-op students,” says Patrick Anthony, a new co-op coordinator. “There is a long-term benefit to pushing training out to their college partners. They also feel good hiring people with whom they already know there is a cultural fit. As the economy improves, we think co-op will be huge.”

Adds Provost Ahmed Abdelal, “We are so pleased with the success of the co-op program. Experiential education—meaning co-ops, research and service learning—is a great way for students to learn. We want to increase opportunities in these areas.”
Transcendentalists, Pragmatists and Intellectuals, Oh My!

Asst. Prof. John Kaag has been teaching philosophy at UMass Lowell since 2008. His classes include Environmental Philosophy, Philosophy of Mind and American Philosophy. We asked him to arrange a fantasy coffee klatch of philosophers.

What philosophers would you like to meet for coffee?

The Transcendentalists—who spent the early decades of the 1800s gathering in towns across New England to discuss everything from the character of God to the most mundane aspects of Boston life. Philosophy had not yet become a dry, lifeless professional discipline. It was alive and well in the meeting houses, pubs, churches and sidewalks of the Northeast.

Okay, Ralph Waldo Emerson is next to you, nursing a macchiato. What’s your first question?

I’d ask Emerson and the rest of the early Transcendentalists about the relationship between ethics—how we are to live—and the workings of the natural world. Emerson, Margaret Fuller and Henry David Thoreau all held that human virtue was just the process of getting in step with the natural order of things. Perhaps chatting with them would allow me to make a step in that direction.

Who’d hang out longest?

After Emerson’s crew headed home, there would still be a raft of American thinkers around, including William James, Josiah Royce, Jane Addams and Charles S. Peice. These characters were part of the American Pragmatic school of philosophy that came into its own in the 1880s. They believed that philosophy had to be world-ready—that it was the thinker’s responsibility to translate thought into real-world action.

Anyone you find especially intriguing?

Jane Addams was the founder of Hull House, a reform project in Chicago at the turn of the century. Today, her work is beginning to be recognized as genuinely philosophical, but in her day she was largely regarded as a mere social reformer. I would ask her what it was like to be a woman in a transitional time, when women thinkers were only just beginning to get recognition.

Then there’s C.S. Peice. He was a madman who died in poverty and near obscurity. He was the brightest philosophical mind of the 19th and 20th century. I would ask him what it was like to work by oneself for so long, to love wisdom all by oneself.

Score Another One for the Tsongas Center at UMass Lowell

Improvements Include Video Scoreboard, Pavilion Club, Luxury Seats and New Concession Choices

More than 200 visitors got a peek recently at the newly renovated interior of the Tsongas Center at UMass Lowell. Improvements include a new video scoreboard, premium seating and expanded concessions.

The Tsongas Center also now features the Lowell Cooperative Bank Pavilion, a 4,800-square-foot club room with more than 300 seats, wait staff for all events and high-definition plasma TVs. At concession stands throughout the building, a wide variety of new dining options with a focus on freshly made food and locally known brands is available.

These additions, combined with other changes—a new sound system featuring 60 speakers, 400-foot-long LED “ribbon” boards and new exterior and interior signage—make the Tsongas Center an exciting experience for fans. UMass Lowell acquired the $24 million venue debt-free in February from the city of Lowell.

Representatives of the center’s new management company, Global Spectrum, and new food service provider, Aramark, were present at the preview event.

The general public will get its first chance to experience the improved Tsongas Center at the UMass Lowell River Hawks’ first home hockey game of the season on Friday, Oct. 22 against the Providence College Friars.

For information on all events, check out www.uml.edu/tsongascenter.
Tracking Terrorists, Teaching About Terrorism

FBI Special Agent Brings Experience to Criminal Justice Grad Program

When Brian LeBlanc isn’t busy investigating potential terrorists for the FBI, he’s teaching students in the Criminal Justice Department at UMass Lowell.

LeBlanc is a Miami-based special agent with the FBI, specializing in counterterrorism. He earned both bachelor’s and master’s degrees in criminal justice from UMass Lowell and teaches three graduate courses online—on terrorism, weapons of mass destruction and physical security—as part of the University’s Graduate Certificate in Security Studies program.

One of LeBlanc’s career highlights was making a breakthrough during an investigation into Adnan Shukrijumah, alleged to have risen to a key position in al Qaeda’s leadership.

“He would be equated with being the chief of operations” and is extremely dangerous, said LeBlanc, when interviewed about the case by CNN and the Associated Press.

By tracking documents and communications, dealing with confidential human sources and taking other investigative steps, LeBlanc helped link Shukrijumah to the attempted New York subway suicide mission a year ago, when two men admitted they planned to blow themselves up using homemade bombs.

“I love my job,” says LeBlanc, whose background includes serving as a U.S. Marine as well as a police officer. Teaching, he says, is a good complement to his field work.

“The certificate program is great,” he says. “In the online environment, you have diversity—people from all over the country and around the world, with different levels of experience and age, from police work to other fields, such as nursing or IT.”

UMass Rated a Top University—Worldwide

Prestigious ‘Times of London’ Ranking Names UMass 56th Best Research University in the World

The University of Massachusetts was rated as one of the best universities in the world in the 2010 World University Rankings released by the Times of London newspaper—making it the only public university in New England on the prestigious list.

UMass ranked 56th in the Times of London’s Top 200, which the newspaper describes as “the gold standard for world-class research institutions.”

In announcing this year’s rankings, Times Higher Education Editor Ann Mroz said: “We would like to congratulate the University of Massachusetts for its performance in this year’s rigorous rankings. The top 200 universities in the world represent only a tiny fraction of (something awkward here: the world’s?) world higher education and any institution that makes it into this table is truly world class.”

In the rankings, UMass comes in at fourth in Massachusetts (behind Harvard, MIT and Tufts) and sixth in New England (after Harvard, MIT, Yale, Tufts and Brown). UMass is the 14th highest-rated American public university and the 33rd highest-rated American institution, public or private.

The World University Rankings, considered the premier global higher-education ranking project, rates universities in five broad categories: teaching, research, citations, international mix and industry income, which denotes innovation.

The Times of London evaluated the University of Massachusetts as a five-campus system.

Says UMass Lowell Chancellor Marty Meehan, “This ranking is a clear illustration of the excellent reputation of UMass, not just in our own state and country, but around the globe. We are indeed a system of five world-class universities, each with individual strengths, that together offer students one of the best and most affordable educational opportunities in the world.”

For more information go to: www.uml.edu/news

Time Capsule Discovered in Smith Hall Foundation

Demolition of 63-year-old Residence Hall Reveals a Mystery and Sparks a Reunion

Smith Hall, built in 1947 to accommodate the rush of post-war students studying at Lowell Tech, was razed this past spring to make way for a new Emerging Technology and Innovation Center.

In the process of demolishing Smith Hall, the construction crew discovered an 18 x 10 x 6-inch sealed metal box nestled behind the cornerstone of the residence hall. After closer inspection, University officials realized it was a time capsule, placed there 63 years ago.

The University will open the time capsule—and place a new one in the new research center—next April.

At the same time, a timeline exhibit of the history of Smith Hall in the context of regional and world events will be on display, and all former residents, resident assistants and resident directors of Smith Hall are invited to share their memories and will be invited to a reunion.

To share memories and ensure you are on our mailing list, go to www.uml.edu/smith-earmies.

To view the webcam on the construction of the new building, go to http://oxblue.com/pro/open/UM/ETIC.
UMass Lowell Grad Student Develops Technology to Control Robots With a Fingertip

Imagine being able to control an army of robots with a touch of your fingertips. Sound like science fiction? Not to Mark Micire, a Ph.D. student in the Robotics Lab in the Computer Science Department.

Micire has developed a simple yet effective multi-touch interface for commanding and controlling a swarm of robots as part of his doctoral thesis. Such technology could conceivably be applied to military and police planning, disaster relief and search-and-rescue operations, warehouse inventory and environmental monitoring and mapping.

Micire revealed his program to the public this summer during his thesis defense and his presentation has become an online hit.

“In addition to having a full audience in the room, he broadcast the talk online,” says Assoc. Prof. Holly Yanco, the lab’s director.

Micire’s presentation has since been featured in numerous technology blogs, including Slashdot, Wired, Popular Science and Gizmodo. As of Oct. 1, his YouTube video demonstration has been viewed almost 90,000 times (http://www.youtube.com/watch?v=H5OzrqGQedA).

Micire achieved breakthrough by merging an existing technology—Microsoft’s Surface computer—with his new, innovative onscreen “joystick,” which he dubbed the DREAM controller.

Microsoft Surface is an interactive computer with a large, 30-inch tabletop flat-screen display. It lets users grab and manipulate digital content and move information using simple touch and hand gestures and object recognition instead of a typical mouse and keyboard.

“The potential of Microsoft Surface has been underutilized,” says Micire. “Since its introduction, it has been used mainly for entertainment, gaming and product demos. My program is one of the first practical, real-world applications of Surface.”

His DREAM controller is a simple, intuitive command and control interface that uses rapid hand detection and recognition algorithm.

“The Dream controller can provide all the functionality of a physical joystick through multi-touch interaction,” he says.

The controller, which is displayed on Microsoft Surface directly underneath each user’s hand, automatically tracks hand movements and can respond to as many as 10 points of contact simultaneously, compared to only one finger as with a typical touch screen.

In his demo, Micire uses the joystick to control a swarm of hypothetical smart “robots” to navigate and explore a virtual city block. Through simple fingertip commands, he is able to select robots from a group, tag them, set waypoints and coordinate their formation from above, quickly and precisely and with very little effort.

He can also swoop down for a street-level view and manually control each robot, panning and zooming in on its location and providing real-time pairs of eyes on the ground. This capability offers great tactical advantage, especially in the areas of law enforcement and counterterrorism. One programmer has already adopted the DREAM controller for use in Portal and MS Flight Sim games on Microsoft Surface.

Micire says data from multiple types of robots can be integrated into one seamless command-and-control display. The system can also be combined with data sets from all kinds of sources, such as building blueprints, city maps, topographic maps and more.