Passport To Knowledge: Gaining a Global Perspective

The sun never sets on the global supply chain. Advanced education programs at a variety of universities offer logistics professionals a world tour unlike any other.

By Merrill Douglas

Imagine Leah Ko’s surprise when the Michigan State University (MSU) student heard music pouring from industrial machines in a Japanese factory. Or Bret Hanson’s shock, as a Purdue University intern in Bangalore, when he learned that domestic freight movements in India might incur interstate tariffs. Or Greg Andrews’ amazement when the logistics executive first set eyes on electronics plants in the Brazilian rainforest.

Such revelations are part of the reason that so many supply chain students and professionals seize the chance to study abroad. Travel opens your eyes to things you never knew existed and makes you think about the world in new ways.

“The world does not revolve around the United States, particularly in a business context,” says Anthony Ross, associate professor, supply chain management at MSU, who leads an annual study excursion to Japan. To succeed in their careers, he explains, students need a broad understanding of what the supply chain is, and what it means to do business in the global environment.

Aside from the chance to view logistics through the eyes of a different culture, Americans go abroad to observe the links at the farthest end of the global supply chain. “They get a chance to see what movements international cargo goes through before it reaches the United States,” says Sara Russell, instructor of maritime and supply chain management at Old Dominion University in Norfolk, Va.

Sure, you can read a book about Chinese manufacturing, German steamship lines, or warehousing in Argentina. You can use multimedia Web sites and video conferences to learn what it’s like to hammer out deals in the far-flung corners of the world. But, as Andrews says, “There’s no substitute for going there.”

Got the travel bug? Read on for a sampling of some global education programs.

GEORGIA TECH

The World as Classroom

For the working professionals who enroll in the Executive Masters in International Logistics (EMIL) program at the Georgia Institute of Technology in Atlanta, the whole world is a classroom.

Greg Andrews earned his EMIL degree in 2005 while employed as director of global logistics for a telecommunications firm in the southeastern United States. Today, he serves as managing director of the 18-month graduate program sponsored by Georgia Tech’s H. Milton Stewart School of Industrial and Systems Engineering.

EMIL recruits its students, who must have at least 10 years of business experience, from Fortune 500 companies. The program combines online courses with five two-week residencies; the first and last take place at the Atlanta campus, while the second, third, and fourth send students to Europe, Asia, and Latin America.

“The average student is 42 years old and has 15 to 17 years of experience across the supply chain,” Andrews says. The program aims to draw 20 percent of its participants each from Europe, Asia, and Latin America, with the other 40 percent from the United States and Canada.

Exactly which countries students visit varies from year to year. The European residency, for example, might include France, Germany, Poland, and Hungary. A recent Asia trip took students to Penang and Kuala Lumpur in Malaysia, then to Hong Kong and Shanghai.
Andrews' Latin American experience included a week in Sao Paolo and one in Manaus, the city in the rainforest. "There's nothing there except the free trade zone and manufacturing zone the Brazilian government established," he says. Drawn by those incentives and inexpensive local labor, global companies such as Nokia and Philips build products in Manaus and fly them to the rest of Brazil.

Andrews and his fellow students used the overseas residencies to learn firsthand about the nuts and bolts of business in various parts of the world. EMIL students meet with corporate executives, government officials, and other experts in the countries they visit. They work closely with their counterparts overseas, presenting case studies and wrestling with real-world business problems.

In Brazil, Andrews was charged with determining how to bring his company's products into the Brazilian market. Multiple layers of taxes, totaling 68 percent of the total cost of the goods, posed a formidable obstacle.

"After visiting several companies, I learned how to cut that to 18 percent," he says. "My observations gave me a road map for achieving results at my company. You can't get that kind of experience over the phone."

EMIL is not the only international learning experience available to students of supply chain management at Georgia Tech. The first U.S.-based student recently enrolled in The Logistics Institute (TLI)-Asia Pacific, a collaboration between Georgia Tech and the National University of Singapore (NUS).

Graduate and executive education programs at TLI-Asia Pacific are similar to programs offered at Georgia Tech's Supply Chain and Logistics Institute, says Harvey Donaldson, the Institute's director and associate chair of industry and international studies at the Stewart School. Students who complete the master's program earn two degrees, one from NUS and one from Georgia Tech.

Each year, the partners recruit approximately 20 students, who are eligible to receive scholarships from the government of Singapore. "While it is primarily for Asian students, it is open to all," Donaldson says. Scholarship students must be co-sponsored by a company in Singapore and agree to work in the country for at least three years after graduation.

In short, EMIL helps students master the supply chain.

OLD DOMINION UNIVERSITY

Port Hopping

While EMIL takes supply chain professionals around the world, European ports form the stage for a program that's available to students majoring in maritime and supply chain management at Old Dominion University in Norfolk, Va. Since 2007, a program on transportation systems and trade flows within the European Union has taken undergraduates and graduate students to visit some of the continent's important shipping terminals, logistics centers, ship and airline manufacturing plants, and other facilities.

Old Dominion's College of Business and Public Administration created the two-week, three-credit study abroad program to give students an international perspective, complementing what they learn on tours in and around Norfolk. European ports are much larger and busier than the ports that Old Dominion students visit in the United States, says Sara Russell, who leads the trip to Europe. "It's interesting to be able to compare what is taking place on both sides of the Atlantic," she notes.

The course starts during the spring semester with several on-campus meetings. Students discuss the basics of shipping terminal design and supply chain management, plus the cultural underpinnings of European transportation.

In 2008, the tour included visits to facilities in Brussels, Amsterdam, Rotterdam, and Antwerp. In Antwerp, for example, students visited the DP World and PSA terminals, plus several logistics centers and warehouse operations. "The students also went to the University of Antwerp to attend several lectures from its key supply chain and economics professors," Russell says.

Students also talk with representatives of transportation organizations. "Last year, we met with the European Sea Ports Organization," Russell says. "We also met with the European Carriers' Alliance and the European Transport Federation."

Back in the United States, students write research papers on a topic that sparked their interest during the tour.

Philip O'Donnell, a double major in international business and marine and supply chain management, made his trip to Europe in May 2007. He graduated in December 2007, and since June 2008 has worked as an export pricing analyst at Zim American Integrated Shipping Services Co.
in Norfolk.

The background O'Donnell gained in Europe helped ease the transition from school to work. He finds it helpful to picture the services he's pricing, based on his visits to ports such as Antwerp's, where he watched cranes load and unload cargo, and saw a semi-automated yard in action. "Seeing the actual operations was one of the most influential parts of the experience," he says.

Students from Old Dominion will return to Europe in 2009, but for 2010 the business school has something new in store: a trip to Asia. "We want to focus on manufacturing operations, free trade zones, and the logistics involved in moving cargo out of Asia," Russell says.

Students will visit Hong Kong; other possible stops include Shenzhen and South Korea. In the future, the summer program will offer trips to Europe and Asia in alternate years.

With so many travel options, Old Dominion gives students a passport to a world of logistics knowledge.

MICHIGAN STATE UNIVERSITY

Japanese Commerce and Culture

The machine that Leah Ko heard making music in Japan was a materials handling apparatus produced in a Daifuku factory. As she and her fellow students learned, it's not unusual in Japan to find industrial equipment designed to perform more than its job.

"Most Japanese products are aesthetically pleasing, even heavy machinery such as cranes," says Ko, a supply chain major who visited the plant as part of her study abroad experience. "I found it very interesting that the Japanese take the time to add this option."

Cultural discoveries of that sort abound during the global supply chain management and cultural studies in Asia program sponsored by MSU's Eli Broad College of Business.

Offered at the end of the spring semester, the six-credit program starts with several online meetings that cover 40 to 50 percent of the course work. Students then travel to the Japan Center for Michigan Universities in Hikone, Japan, for more class work, plus local tours focused on history and Japanese culture. Next, the group moves to Nagoya and Tokyo to visit manufacturing plants, government offices, and logistics facilities.

"We visit Tokyo's International Air Cargo Terminal, which is where most of the world's sushi leaves and enters Japan," says Ross, who leads the trip. Other venues have included: the Japan Ministry of Trade and Industry; freight forwarder Kuehne+Nagel's facilities; Kikkoman soy sauce company's world headquarters; Meiji, Japan's largest candy company; and the financial newspaper Yomiuri Shimbun.

"These companies are gracious enough to allow our students to tour one or more of their facilities," Ross says. "They also invite their C-level managers to present their company strategy, performance, vision for the future, the setting in which they operate, and the scope of their whole business operation."

During the program, students complete two of three courses: Introduction to Supply Chain Management, Introduction to International Business, and Independent Study in International Logistics.

Kristi Cassar, a general management major, enrolled in the program in 2007. Like Ko, she noticed aspects of Japanese business culture that were strikingly different from practices in the United States.

One example: some warehouses she saw took quality control to the extreme. "They hired workers to go through every package and recount the contents," says the May 2008 MSU graduate, now working at Eaton Corporation in Eden Prairie, Minn.

Ko, who graduated in December 2008, observed the effects of Japan's narrow city streets. "The trucks are a lot smaller, and instead of opening from the rear, as they do in the United States, their 'butterfly trucks' open from the sides."

The country's small, densely populated land mass also demands different logistics strategies. "Companies usually share warehouses, and those facilities are built higher often five or six stories," Ko says. "In one warehouse we toured, a different company owns each floor."

As Ko and Cassar discovered, developing an appreciation for these types of differences is one of the MSU program's many benefits.

MIT-ZARAGOZA

The Chain in Spain
If studying abroad means going where the action is, you can’t do better than the Massachusetts Institute of Technology (MIT)-Zaragoza Logistics Program in Spain. The program’s campus stands in the middle of Europe’s largest logistics park, Plataforma Logística de Zaragoza (PLAZA). Modeled on MIT’s masters of engineering in logistics (MLOG) program, the nine-month Zaragoza course draws graduate students from around the world and from a variety of disciplines.

"It’s a mix between business and engineering backgrounds, as well as international studies and political science," says Jarrod Goentzel, the Zaragoza program’s executive director. "People who want to get involved in international business realize that supply chain is a good way to pursue that goal, because most supply chains are inherently global."

MIT’s Center for Transportation and Logistics operates the program in Spain in partnership with the University of Zaragoza, the government of the Aragón region, several corporations, and PLAZA. Along with the masters degree, MIT-Zaragoza offers a PhD, both from the University of Zaragoza. The program also provides a home base for faculty, students, and corporate partners to conduct research.

One faculty member, for example, is exploring more effective ways to transport medicines into sub-Saharan Africa and other developing regions. Three other research initiatives emerged after officials at the DHL facility in PLAZA introduced MIT-Zaragoza researchers to colleagues at the DHL Innovation Center in Germany.

"The Zaragoza center became a key research partner for the new DHL Innovation Center," Goentzel says. With funding from the Aragón government, resources from DHL, and expertise from the academic center, the partnership is focusing on three areas: reverse logistics, postponement strategies, and supply chain visibility.

Students in the masters program may participate in faculty research for their thesis projects, or they may do research for local corporate sponsors. "The company can use the results of the research project to move forward," Goentzel says. "It’s a way for them to explore topics that they may not have time to explore, given daily management requirements."

The MIT-Zaragoza program, which is taught in English, currently includes 33 students from 15 countries. "The international experience is not only living overseas, but also studying and working with people from different backgrounds," Goentzel says.

That experience acquires an added dimension each January, when students from the Zaragoza program and the MLOG program in Cambridge, Mass., study together, spending half the time at each campus. "The students are grouped into teams of six, and we play a month-long simulation game," Goentzel says. "They compete to see who manages the best supply chain."

With the experience the students gained in MIT’s and Zaragoza’s programs, that competition is sure to be fierce.

PURDUE UNIVERSITY

Motorbikes in Bangalore

Given the economic slump and recent violence in India, Mary Pilotte thought Purdue University’s International Internship India program might draw fewer students in 2009 than in past years. But based on the numbers that have been turning out for information sessions, interest in the program remains strong.

"The program is a resume enhancer that helps participants differentiate themselves in the marketplace," says Pilotte, managing director of the Global Supply Chain Management Initiative and the Dauch Center for the Management of Manufacturing Enterprises at Purdue’s Krannert School of Management. The two centers run the internship program with sponsorship from Indian motorcycle and motor scooter manufacturer TVS Motor Corporation.

Intended for graduate students, but available to selected undergraduates, the internship sends participants to spend two weeks at TVS in Bangalore, where they work on research projects for the company. Venu Srinivasan, chairman and managing director of TVS Motors and a Krannert alumnus, founded the program to give students a chance for cultural immersion in an industrial setting. This is the internship’s third year.

Students from various disciplines within the business school, including supply chain, operations, marketing, finance, and human resources, have participated in the internship. Engineering students are welcome, too, as are students at the GISMA Business School in Hannover, Germany, which maintains a relationship with Purdue.

Before going to Bangalore in May, participants form teams of two, based on their backgrounds and interests. Each pair is assigned a project from a list supplied by TVS and is matched with a mentor in Bangalore. Students confer with their mentors via video conference link and conference calls.
and start gathering data for their projects.

Bret Hanson, who earned an MBA in operations from Purdue in May 2008, conducted research to help determine where and how TVS might expand its manufacturing capacity, both within and outside India.

“We considered factors such as tariff rates, shipping charges, and the friendliness of governments where the company would potentially expand,” he says.

One of the most valuable aspects of the project was the chance to compare business processes in the United States and in India, says Hanson, who now works in the Supply Chain Leadership Development Program at Raytheon Company in Waltham, Mass. For example, Hanson was surprised to learn that businesses pay tariffs on goods transported from one Indian state to another. “The lesson I learned is that the rules are different everywhere,” he says.

A project of that sort also helps students appreciate how geography affects product cost, says Pilotte. Students understand that it’s less expensive for a U.S. manufacturer to make product in India or Mexico, for example. “But if you’re in India already, where do you go?” she says.

Other teams have tackled projects focused on supplier scorecarding. Learning what qualities an Indian company values in its suppliers helps students appreciate some of the differences between the Indian and U.S. business cultures.

Another benefit interns gain is seeing firsthand what it’s like to operate a supply chain in an emerging country. “The processes, rigor, transportation infrastructure, and notion of consistent performance may not be in place yet,” says Pilotte.

Insights of that kind will become important as more U.S. firms come to rely on a web of trading partners that stretches around the globe. Future supply chain professionals need to gain rigor in their professional discipline, of course. But they also need to gain a global perspective.

“If you can’t get out and observe other environments and cultures to gain an appreciation of why they do things differently, then you lack the flexibility and the readiness you need to make sound decisions,” says Ross at MSU.

Fortunately, supply chain students and professionals today have many opportunities to attain that flexibility, and gain the experience they need to succeed, by getting a close look at business cultures throughout the world.