IN DEMAND

By Patrick Lapinski

t's one of the most demanding (and in demand) programs of its kind in the country. They come here from all over the world and our own backyard. They come to study, seek a degree and plan their future business careers through the University of Wisconsin-Superior's transportation and logistics management program and its Transportation and Logistics Research Center.

The creators of the transportation and logistics management degree program were lauded as being forward-looking. Dr. Richard Stewart, who chairs UWS's business and economics department, explained the degree program's design.

"It consists of a firm foundation in liberal arts and then a standard core of business courses, such as accounting and finance and marketing and economics," Stewart said. "Then on top of that is built a layer of courses related to transportation, logistics and supply chain management."

The idea was to create a program to educate students and provide them with employment opportunities in the transportation industry. Railroads, trucking, merchant marine; they're "graying industries" in terms of accelerating baby boomer retirements, said Stewart, adding that "Finding qualified replacements was one of the early reasons for creating the program in the 1990s."

Today, a high percentage of students come from around the world, everywhere from China to Japan to Brazil to Superior. When asked to comment about the keys to successful global recruiting, Stewart quipped, "Well, of course in the days of social media, you Google 'transportation education' and we pop up." As a result of these pop-ups, UWS now has formal exchange programs with Beijing Wuzi University in China and the University of Le Havre in France.

THE LAUNCH

The transportation and logistics program coalesced in a relatively short time. Its foundation was laid under the direction of Dr. Bernhard J. Abrahamson, a New York University economics graduate. During the early 1990s, Abrahamson – then chair of UWS's division of business and economics – took the lead in attending meetings, submitting curriculum drafts and lobbying the University of Wisconsin System for program approval. Without Abrahamson's leadership, the program "would have died an early death," Stewart said on the occasion of the program's 10th anniversary in 2008.

Recruited by Abrahamson, Stewart joined the program in 1999. Earlier, the two men had taught together at the U.S. Merchant Marine Academy at Kings Point, N.Y. Both held captain's licenses for deep-sea vessels and, as men of the sea, often got to talking. On one occasion, Capt. Stewart told his East Coast colleague about his home on the North Shore of Lake Superior.



The University of Wisconsin-Superior's Transportation and Logistics Research Center and Program Attract Student and Industry Attention Worldwide





"Key to the success of this program has been the strong support from industry and local government."

- DR. RICHARD STEWART, UW-SUPERIOR

Years later, Abrahamson took a position at UWS and one day, Stewart received a surprise call from his old friend. Abrahamson had started a program in transportation and logistics management and wanted Stewart to operate it.

So Stewart returned to the Upper Midwest. After he'd heard the plans, he thought of even more opportunities they could pursue if UWS established a transportation and logistics research center. That potential infused him with a "Boy, this could be a lot of fun" energy.

"I knew a lot of people in the community, had strong support from the university and it seemed to me a very intelligent move," Stewart said. "My job was just to do it right. Key to the success of this program has been the strong support from industry and local government. Without their invaluable contributions, we could not have built up the program and research centers.

"Teamwork enables us to do more than any individual can," said Stewart, "and I have had the pleasure of being part of the T&L [transportation and logistics] team. Dr. Mei Cao, for the past seven years, has been our supply chain management expert and an exceptional scholar. Dr. Amit Mokashi, Rick Moran and Dr. Randy Gabrys-Alexson also teach T&L courses, and, along with Dr. Zamira Simkins, engage in applied research. Sandra Benes tends to the complex administrative requirements of grants while assisting students and faculty. Kathy Derick, who is no longer at UW-Superior, was extremely helpful in the formative years of the center and program."

In addition to the outstanding T&L faculty and staff, Stewart commended the quality of the students enrolled in the transportation and logistics management program.

"All of the team members have had the privilege over the years of being engaged at many levels with exceptional students," he said. "The students never cease to amaze me with their interest, creativity, intelligence, dedication and sense of humor."

COMPANIES VALUE INTERNS – AND GRADUATES

The academic curriculum is rigorous. Students study economics, mathematics, computer information systems and geography in addition to law, finance, marketing – there is a lot to know. The program is the first of its kind in Wisconsin and is certified by the American Society of Transportation and Logistics, one of only 28 programs in the country to hold this certification. It encompasses the rail, airline and trucking industries, as well as a local favorite, given the importance of the Port of Duluth-Superior: marine transportation.

The Transportation and Logistics Research Center also helps attract and retain women in the transportation industry. On April 15, for example, UWS hosted a Duluth-Superior Transportation Association event featuring Ellen Voie, president and CEO of the Women In Trucking Inc. Association. Voie also spoke with women on campus at another informal event that day. And a Girl Scouts Transportation Day will be held June 25 to encourage them to "Be the Future Transportation Leaders of America."

An internship is also embedded in the curriculum, which takes place after students have been in the program for several years and have gained a level of knowledge that can be beneficial to the company they're working with. Students are encouraged to seek internships with local industries in their area of specialization.

Fred Shusterich is the president and CEO of the Midwest Energy Resources Co. (MERC) – the Detroit Edison coal terminal in Superior that ships more than 15 million tons of soft-bituminous coal annually. Shusterich has been a strong supporter of the T&L program since the beginning, to his company's benefit.

Superior's Midwest Energy Terminal receives coal daily from 123-car unit trains. It takes two days to make the 1,000-mile journey from western U.S. coal fields to the dock. The terminal at Superior has a ground storage capacity of five million tons



At a May 5 UWS program, students presented a viability study for a children's play area at a regional airport.

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- DOUGLAS COUNTY ADMINISTRATOR ANDY LISAK

and regularly loads vessels at its ship-loading berth. A point of trivia: it would take a coal train five miles long to fill just one of these 1,000-foot ships.

"They're coordinating the loading of trains at the western mines, the pickup by the Burlington Northern Railroad in our train sets and coordinating that so it continues to be fluid," said Shusterich. Noting how the interns are involved in the daily operation at the terminal, he explained that "they coordinate with the vessel companies and the customers, the loadings, [and] they coordinate the trucking shipments of the same coal with truck-delivered customers. They're doing it all, so they're coordinating the activities of rail, vessel and trucking."

It's the level of knowledge that transportation and logistics students bring to their workplace that impresses Shusterich and his team at Midwest Energy. "We've been lucky enough to employ four of their graduates here. We currently have three on staff," he said. "This program is very well tailored to stepping out of the university setting and getting a job immediately, helping a logistics and transportation firm such as we are."

"We're in a unique position," noted Stewart on UWS being one of only a few schools in the United States that teach students on both the supply chain and transportation management. In a recent study of 139 universities advertising that they teach transportation logistics and supply chain management in their bachelor's programs, Stewart estimates that only about 27 percent of those schools actually require students to take transportation courses. As a result of the status of the UWS program, "we're able to put our graduates with the shippers – the Targets, the Best Buys who have products to move – and the carriers who move the products," Stewart explained.

"I believe we have six current employees that have gone through the transportation and logistics program," said Jon Vinje, owner and president of Halvor Lines Inc., a Superior-based trucking firm. Halvor Lines operates a large fleet of tractor-trailers that move freight throughout the North American continent. In 2014, the firm was selected as one of the "Top 20 Best Fleets to Drive For" by the Truckload Carriers Association and Carriers Edge, a company that provides safety training, testing and tracking services endorsed by trucking industry leaders across the country. And Halvor Lines has one of the best safety records in the nation.

"We opened our logistics division in 2008," said Vinje, who heads this family-



Director Ron Chicka, left, and Principal Planner Andy McDonald of the Duluth-Superior Metropolitan Interstate Council, which provides learning experiences for UW-Superior students in the transportation and logistics management program.



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Students and faculty from the transportation and logistics management program recently attended the 94th annual Transportation Research Board meeting in Washington, D.C. From left: Andre Anderson, Wesley Anderson, Dr. Zamira Simkins, Bradley Roy, Diana Krizan, Natalie Burger, Dr. Richard Stewart, Dr. Mei Cao and Dr. Amit Mokashi. PHOTO COURTESY OF UW SUPERIOR.

owned business. "It's another value-added option for our customers. If all of our trucks are busy in the Halvor Lines fleet, our Halvor logistics services division has the availability of additional truck capacity to manage the freight at peak times."

Managing drivers and assigning loads is one key area at Halvor Lines where UWS transportation and logistics interns work right alongside Halvor employees to keep the freight moving. Interns are involved in managing the freight for the fleet and its truck drivers. "It's a very good partnership," Vinje said. "We feel very fortunate to have this type of education right in Superior to help support our business." Stewart also sees internships as a way for students to learn about their future careers from experienced professionals. "They are mentored by these professionals," he said. "They get to see good leadership in action. Remember, they're being educated to become leaders." He smiles when he sees students sharing the knowledge and perspectives they've gained from their real-world business mentors back in the classroom. It's a very vital part of the educational process.

RESEARCH CENTER HELPS LURE BUSINESSES

In 2002, the University of Wisconsin System board of regents approved a budget

increase to support the establishment of the UWS Transportation and Logistics Research Center. Since then, the program has received more than \$10 million in research grants. The center's emphasis is on applied research, Stewart said. Transportation and Logistics Research Center projects take on real-world issues requiring a high level of expertise. These challenges provide outstanding opportunities for students learning how to conduct research.

The value a research institution delivers raises the level of its educational and economic importance to the surrounding community. Almost since its inception, the center, as well as the transportation and logistics program for students, has delivered that value to the Twin Ports region. "It's really turned UWS from a university that's

"We've been lucky enough to employ four of their graduates here."

 PRESIDENT AND CEO FRED SHUSTERICH, MIDWEST ENERGY RESOURCES CO.

not only a great teachers college, but now a research institution that's providing research that's directly related to the key industries in our area," said Douglas County Administrator Andy Lisak.

Lisak - who sees and hears from a wide variety of individuals and business leaders through his position - said he's slightly



amazed at how many people know about the program. "They've married the needs of industry here with what they're able to offer," said Lisak, "both in terms of research and in terms of the types of students they're producing that can go out and meet the labor demands of businesses within our region."

As chief administrative officer for Douglas County, Lisak keeps a watchful eye on the the program's progress, because he sees it as another tool at the county's disposal to lure businesses to invest here.

"I believe it's one of the premier programs that UWS offers," he said. "I think it's one of the programs that sets UWS apart from all the other campuses within the UW System. I believe UWS, at this time, is either number three or number four in regard to the receipt of research dollars among all UW campuses, including UW-Madison. Much of that is due to the work of the transportation and logistics program and the research dollars that they're able to attract from private and public sources."

Andy McDonald is the principal planner for the Duluth-Superior Metropolitan Interstate Council (MIC). Every urban area in the U.S. that has a population greater than 50,000 has such a council, says McDonald. "We are a federally designated entity and we bring local insight into the transportation planning process," he explained, to guide the transit future of the Twin Ports area.

The transportation and logistics internship opportunity at MIC is likely a bit different than what a lot of the other internships provide for students, says McDonald. For example, working for a trucking company or a grain elevator is very different from the MIC's experience. "They get to see how a lot of government agencies interact with each other, and a lot of what goes into the transportation planning and the public involvement," McDonald said. "And some of those steps they may not get exposed to through some of their coursework."

That's pretty powerful stuff coming at a college intern, but he thinks it's one of the strengths of Stewart's program. "I think it's a good thing," said McDonald, whose experience and expertise in the civic arena gives him insight into how local politics can have a sobering impact: "They learn sometimes what it's like to work with difficult people,



Joel Hirschboeck, Kwik Trip's superintendent of alternative fuels, has been a presenter at Great Lakes Maritime Research Institute annual meetings. Kwip Trip has researched compressed natural gas, liquefied natural gas, propane, biodiesel and E-85 and has an alternative fueling station in La Crosse. PHOTO COURTESY OF KWIK TRIP.

"We feel fortunate to have this type of education right in Superior to help support our business." – PRESIDENT JON VINJE, HALVOR LINES INC.



Twin Ports LNG Liquefaction Plant Marketing Region 250 mile (402 Kilometer) drayage



Map from Dr. Richard Stewart's presentation at a Great Lakes Maritime Research Institute annual meeting, held to discuss the potential for liquefied natural gas use in transportation industries.

or they would learn that projects don't always happen the way you want them to. I think that's good, before they get out into the job market, to see a little bit of that – that not everything is successful."

THE GLMRI GAINS AFFILIATES

The third and latest addition to the program is the founding of the Great Lakes Maritime Research Institute (GLMRI). In June 2005, the GLMRI was designated a National Maritime Enhancement Institute by the U.S. Department of Transportation (DOT) Maritime Administration. "I think roughly eight schools have received that designation as National Maritime Enhancement Institutes," said



"They get to see how a lot of government agencies interact with other."

 PRINCIPAL PLANNER ANDY MCDONALD, DULUTH-SUPERIOR METROPOLITAN INTERSTATE COUNCIL

Carol Wolosz, GLMRI's executive director, "which means we have the element and the faculty and the assets to do maritime research and are recognized under the DOT."

Stewart and Dr. Jim Riehl of the University of Minnesota Duluth spearheaded GLMRI's launch in 2004 as a collaborative consortium to conduct research focused on shipping and maritime commerce on a Great Lakes-wide basis. While UW-Superior had a lot of knowledge in some areas, it lacked in others. The same could be said about many universities in the Great Lakes basin. By teaming with UMD in the consortium, the GLMRI tied in both UMD's Swenson College of Science and Engineering and Labovitz School of Business and Economics.

The impact was instantaneous and the GLMRI began expanding with other universities becoming affiliates. "We went around the lakes and came up with a program to tie in other universities in the Great Lakes region," Wolosz said. "We currently have 10 affiliate universities that work with us, with the two host universities, and are able to work on research projects with us as affiliate researchers."

For decades, no one at the university level had been studying maritime transportation on the Great Lakes, according to Stewart. "We have received funding both from the various federal agencies, state governments and private industry to do research projects for them on improving economical and environmentally sustainable maritime commerce," he said.

An example of the type of research that falls within GLMRI's purview – and one that has caught the attention of many people – is the increased potential to use liquefied natural gas (LNG) as a fuel source for vessels.

"Since 2011, a lot of our work has been involved with looking to convert the shipping industry to using liquefied natural gas," Wolosz said, but it's going to take some time and some help. Shipping firms are reviewing engineering studies on how to convert their vessels to use LNG. The rail industry is also interested in converting diesel locomotives to LNG. Beyond just ascertaining potential demand for LNG, however, infrastructure must be in place to create the fuel, store it and supply it to customers.

"The gas industry is pursuing the development of liquefaction plants in the region, but everybody likes to call it the chicken or the egg [question]," said Wolosz. "The gas industry isn't going to develop liquefied natural gas until the industry's ready to use it, and the industry can't go to use it until the gas is in place. So it's that dynamic."

The UWS transportation and logistics program is shining a new light upon the campus, according to Wolosz, who says the word is out in the community: "It's a small UWS campus in general – and then you go in and you peel it back and he's [Stewart] got this great program that's embedded in their academic curriculum at the university. It's highly regarded and recognized."



THE LEGACY

The transportation and logistics program keeps growing. And it's hard to separate the man from the program. Stewart's prolific involvement in so many organizations, programs, research studies and industries has focused a spotlight on the program. Recently, for example, he was selected by Wisconsin Department

"Since 2011, a lot of our work has been involved with looking to convert the shipping industry to using liquefied natural gas."

of Transportation Secretary Mark Gottlieb to serve as a representative on the newly formed Wisconsin Freight Advisory Committee.

But when it comes to his students, Stewart prefers to keep out of the limelight. Getting students to see the world differently and think about it in other ways is his job - and he's passionate about it.

"What's neat about Dr. Stewart is the mentoring role that he plays," said Lisak. Observing Stewart during meetings and events they mutually attend, Lisak sees him in his other role: purely the professor who is very proud of his staff and students. "I believe he received a mentor award from the UW Alumni Association," Lisak said. "He's the face [of the program]. But

what Dr. Stewart does - whenever he's at an event with the students and his staff is push them forward. And they become the face when they're out in public and when they're around the country. The awards his students have won in competitions versus peer institutions have been pretty amazing.

"I think he's empowering his students and other staff members to basically continue to build upon the efforts he's exerted and others have exerted for the program," said Lisak. "And I think we'll see that legacy continue after Dr. Stewart decides to retire." 28

Patrick Lapinski is a freelance writer and a native of Superior



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