

TRAINING



HANDS ON: A Southeast Community College student works on Bayport distillation and evaporation training equipment during Energy Generation Operations training.
PHOTO: SOUTHEAST COMMUNITY COLLEGE



biofuels

Top Of Class

Training programs around the U.S. offer opportunities in the biofuels industry for part- and full-time students.

By Holly Jessen

Todd Finneman's career has gone through several transformations, thanks to ongoing education and on-the-job training. After owning his own garbage removal service, he went back to school at Bismarck State College, where he completed a degree in process technology in 2003. That led him to a job at Chippewa Valley Ethanol Co. where he worked for six years before he started his own hydroblasting business, cleaning ethanol plants.

Finneman had only been working at CVEC a few months when an industrial cleaning company came in to perform services. Although he didn't know it at the time, the exposure to that type of ethanol plant service business was key to his future. Since the company was shorthanded, he and other ethanol plant employees were recruited to help out, something that bothered many of his co-workers, who complained cleaning wasn't what they had prepared for in school. Finneman saw it as an opportunity to learn. "It's a great way for you to understand the equipment that you are going to be running," he told his co-workers. "Because you are going to be in cleaning it, you are going to know what that piece of equipment is all about.' That's how I looked at it, not knowing that it was going to be training that I was actually going to be using in my own company."

In 2009, after working at CVEC for six years, Finneman took the plunge and started Enviro-Dyne Industrial Services Inc. Continuing education and training remains important to him. In 2013 he completed a 40-hour hazardous communication education program at Ridgewater College in Willmar, Minnesota. Recently, he hired someone who will handle training for his employees in-house.

Mick Miller, president of NuVu Fuels and general manager of DENCO II in Morris, Minnesota, also went through the program at Bismarck State.



Mick Miller

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Unlike Finneman, who was a nontraditional student going back to school later in life, Miller started the program not long after graduating from a nearby North Dakota high school. Although his original goal was to gain experience working at an ethanol plant and use that to get a job in another industry, that never happened. “Once I got into the ethanol industry, I had no desire to get into an oil refinery or power plant,” he says.

Two years after starting out as an operator at DENCO, Miller worked his way up to a plant manager position at only 21 years old. He and his brother, Mitch Miller, both graduates of the Bismarck State program, were plant managers at the same time. Today Mitch Miller is the CEO of Carbon Green BioEnergy LLC and a managing partner of NuVu Fuels. Over the years, the brothers have hired a number of staff members who have gone through the Bismarck State and other technical programs, Mick Miller said, adding that those students can be difficult to come by since there’s a high demand for workers with technical skills.

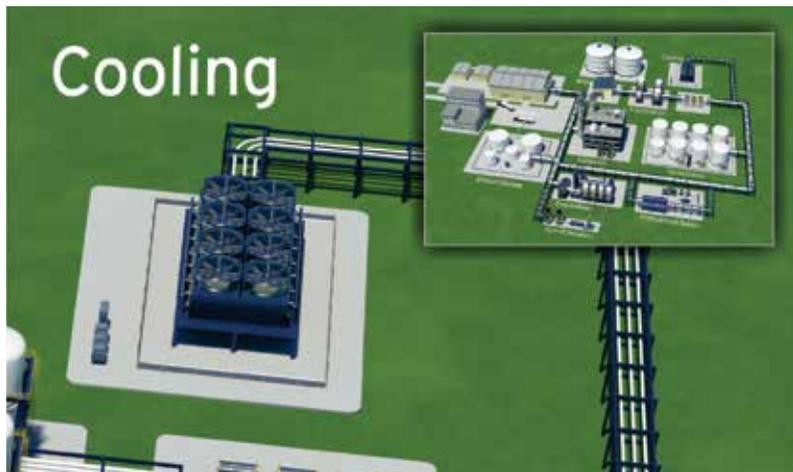
Different Models

The various programs offer different options for students with different needs. Southeast Community College, in Milford, Nebraska, for example, offers students training that can be completed in 18 months. Although some classes are online, the program is designed for students living nearby while completing the program. Southeastern Illinois College, in Harrisburg, Illinois, on the other hand, offers its Biofuels Technology Programs courses all online, so students can take them from any location.

Both programs attract traditional and nontraditional students. John Pierce, program chair of Energy Generation Operations training at SCC, estimated that 70 to 75 percent of students in that program are retooling their careers later in life. Renee Loesche, Building Illinois Bioeconomy, SIC program director, confirms that older students are more common, although some high school juniors have taken it and done well. “Most of our students have advanced degrees and have been working in the industry,” she says. “We’ve had plant operators, plant managers, human resource personnel, bench chemists responsible for fuel testing, veterans looking for a career pathway and those with a general interest.”



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SIC started its program at the Nebraska school in January 2011 and, since then, 92 students have graduated. Pierce knows of 20 of that number who are currently working at an ethanol plant or in a biofuels-related industry. “Actually we have quite a few more working in biofuels than graduating in the biofuels focus,” he says.

One of the unique things about this program is that, although students graduate with a focus on one of three industries, the first five quarters of the program are the same for all. Students in the Energy Generation Operations program are taught the same core skills and knowledge for the majority of the program and only split out into biofuels, nuclear or fossil fuels focuses for the last quarter. “It has turned out to be a winning strategy because employers frankly don’t care what focus the students take because they’ve got five quarters of common curriculum,” he says, adding that students have also been hired to work at water treatment facilities, at pet food and food processing companies, or heating and cooling plants for hospitals and schools, to name a few.

In Illinois, SIC is part of a federally funded \$9.9 million grant project, called Building Illinois’ Bioeconomy, to develop and enhance training for bioprocessing and water management. SIC, the National Corn-to-Ethanol Research Center and its host university, Southern Illinois University Edwardsville, Lewis and Clark Community College, Lincoln Land Community College and Carl Sandburg College have formed a consortium and started work on the project.

As part of the grant, SIC is working to develop self-paced courses that will allow students to earn a fast-track certificate in six months or less, with the same high-quality instruction currently offered in a nine-month program, Loesche says. The goal, she says, is to eventually offer a standardized program that other U.S. schools can access and build on, a model that is already working in Europe. The consortium of schools is also working with industry, trade and community partners. “We have major ethanol producers, biorefineries and national associations who have committed to providing content reviews and consider graduates when hiring,” she says. That list includes Adkins Energy, Lincolnland Agri-Energy, Big River Resources, Abengoa Bioenergy, Illinois Renewable Fuels Asso-



Loesche

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Biofuels Training Opportunities

Lewis and Clark Community College
Bioprocess Technician Training
Godfrey, Ill.

National Corn-to-Ethanol Research Center
Bioprocess Technician Training
Edwardsville, Ill.

Southern Illinois University Edwardsville
Bioprocess degrees in management, science and engineering
Edwardsville, Ill.

Southeastern Illinois College
Biofuels Technology Programs
Harrisburg, Ill.

Indian Hills Community College
Iowa BioDevelopment
Ottumwa & Centerville, Iowa

Metropolitan Community College
Process Operations/Power Plant Technology
Blair, Neb.

Southeast Community College
Energy Generation Operations
Milford, Neb.

Bismarck State College
Process Plant Technology
Bismarck, N.D.

Minnesota West Community and Technical College
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Ethanol Technology Institute
The Alcohol School, Biofuels Academy
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ciation, National Corn Growers Association and Growth Energy.

The grant money came from the U.S. Department of Labor Trade Adjustment Assistance Community College Career Training program. The Taacct grant program was authorized in 2009, as part of the American Recovery and Reinvestment Act. In 2010, President Obama signed a bill into law that included \$2 billion to fund the program over four years. "Through these multiyear grants, the Department of Labor is helping to ensure that our nation's institutions of higher education are helping adults succeed in acquiring the skills, degrees, and credentials needed for high-wage, high-skill employment while also meeting the needs of employers for skilled workers," according to the Department of Labor.

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