

Community College Training for Managing Green Jobs



Leah Nash for The New York Times

Matthew Heflin, formerly of Hewlett-Packard, is taking energy management classes at Lane Community College in Eugene, Ore.

By [ELIZABETH OLSON](#)

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BEYOND “green-collar” jobs, like retrofitting a home to conserve energy or helping build a wind farm, an energy-conscious economy will need a new generation of environmentally smart managers, and that’s where [community colleges](#) are stepping up with new courses and degree programs.

The federal government is pouring \$500 million into training for green jobs, and the sector devoted to energy efficiency is estimated to grow as much as fourfold in the next decade, to some 1.3 million people, according to the Lawrence Berkeley National Laboratory. Its [March 2010 report](#) was financed by the Energy Department.

Green-collar jobs have grabbed the public’s attention, and educational institutions are starting programs to train the managers who will oversee the technologies, manufacturing processes and materials that will be used to conserve energy and help safeguard natural resources.

Some community colleges already are offering two-year degrees in environmental management and certificates for managers who want to add green qualifications — which means learning more about the environmental aspects of a particular field — to their résumés. These colleges are offering some courses and training on campus as well as online.

Lane Community College, in Eugene, Ore., for example, is offering two-year programs — for associate degrees in applied sciences — in energy management, renewable energy or water conservation.

The college, which has an organic garden and changed its faucets and toilets to conserve water, was an early proponent of environmental education, and its degree programs are serving as models for 10 other community colleges, according to Roger Ebbage, director of energy programs at the college’s Northwest Energy Education Institute.

“When we first started two decades ago we were focused on community and residential energy efficiency,” Mr. Ebbage said. “Now we are preparing people to go into the commercial sector anywhere in the country.”

The graduates are in great demand, said Mr. Ebbage.

“They are working for utilities, on engineering jobs, for school districts, cities and the military,” he said. “We’re not going to be in areas where there is no job demand,” he added, noting that some short-term green job training programs have been criticized because they do not always lead to employment in the current economy.

The demand for its managerial graduates prompted Lane Community College to accelerate its two-year program, with help from federal money, starting this month. The college is beginning a trial program that allows students to earn their energy management degrees in fewer academic terms. Their tuition is subsidized as part of the federal stimulus funds for green courses and training, including a \$2,500 tuition tax credit.

Matthew Heflin, 49, decided to get his energy management degree after spending 18 years working at a [Hewlett-Packard](#) lab that researched new products. Mr. Heflin, a military veteran who does not have a college degree, wanted to be prepared for the green economy.

“I was first interested in wind or solar, but then I heard about the energy management program,” said Mr. Heflin, whose previous job had been eliminated. “Now I’m taking math, physics and three energy management classes, including sustainability.”

Mr. Heflin is among the program’s 25 students, most 25 to 55 years old and many displaced from industries like computers and aerospace. Math and sciences are part of the program, so applicants have to have at least an algebra background.

The students can also take the college’s other continuing education courses, including sustainable landscaping, and cross-disciplinary courses like natural resource economics, environmental politics and global ecology.

Last year, the college won a \$890,000 grant from the federal government — not stimulus money — for its accelerated program. An additional grant is being used to help 10 other community colleges across the country begin or enhance their programs in energy management over a three-year period, said Mr. Ebbage.

Those colleges include American River College in Sacramento; Northeast Wisconsin Technical College in Green Bay; Delaware Technical and Community College; and [West Virginia University](#), in Parkersburg.

Delaware Technical and Community College, which has campuses in Dover, Georgetown and Wilmington, will be offering an applied energy program to train energy managers and “green power” technicians starting in September, said Stephanie Smith, the college’s academic vice president.

“Lane is the national leader in this program, and we are modeling our program on them,” she said. The college plans to offer a two-year associate’s degree in applied science, first in energy management and then, starting in the 2011 academic year, in [solar energy](#) management.

The program, which opened student enrollment this month, will have 30 students, both entering freshmen and older people trying to retool their skills, said Ms. Smith.

Such training is also being offered in rural areas, with online environmental degrees and certificates, according to a survey of 321 community colleges by researchers at the [University of Louisville](#)’s National Research Center for Career and Technical Education.

Rod P. Githens, one of the authors and assistant professor of work force education at the University of Louisville, said many of the green learning programs were for workers in transition and required education beyond a high school diploma but less than a four-year degree.

A few, like the College of Southern Maryland, in La Plata, offer management programs, including one in environmental planning, and a separate program in environmental management. These programs provide a letter of recognition, and not a degree.

For those seeking a four-year degree, the Lawrence Berkeley National Laboratory study found that about two dozen four-year colleges and universities across the country offer degree programs with courses that are directly relevant to the energy efficiency sector.