Eco-Friendly Education

It starts with awareness.

“What we now call sustainability is not just about protecting the environment; it is also about finding ways to meet the basic needs of all current and future generations of humans,” says Anthony D. Cortese, a co-director of the American College & University Presidents Climate Commitment. “In the last 100 years, we’ve educated people in a way that assumes human economy is totally divorced from the Earth.”

Cortese believes it is higher education’s responsibility to get people to understand that whatever we do to the Earth, we do to ourselves. “The assumption,” says Cortese, “is that if we let market forces expand, technology will solve all problems and government will make sure there isn’t too much excess. We are fundamentally destroying the basis for life.”

Across the country, mayors, business owners, government workers, and labor leaders are saying it’s time to push for a greener world. Community colleges are advancing the jobs of the future at a much faster rate than anyone else; they’re training the technicians who will work for the companies making energy-efficient windows, constructing Leadership in Energy and Environmental Design (LEED)-certified buildings, doing energy audits, and building renewable energy equipment.

To truly embrace sustainability, it must be integrated into all facets of the college: mission and planning, curricula, research, purchasing, student life, operations, professional development, legislative activities, and community outreach and partnerships. Already, community colleges have made inroads in many of these areas, including institutional leadership and planning, facilities, student life, curriculum, and community partnerships.

COMMUNITY COLLEGES JOIN THE GREEN MOVEMENT

BY ELLEN ULLMAN

Institutional Leadership and Planning

When Mary S. Spangler became chancellor at the Houston Community College System (HCC) in Texas in March 2007, she immediately hired a senior-level sustainability person. “By identifying a key person, you show everyone that you’re dedicated to moving forward,” she says.

One of the greatest challenges for community colleges is to create a culture among students, faculty, and staff. That’s why it’s imperative for the president or a high-level administrator to be committed to sustainability. After that, faculty, staff, and students will naturally follow.

Several colleges are creating senior-level sustainability positions or including sustainability objectives in the job descriptions of CFOs, student affairs staff, and chief academic officers. Other schools are forming collectives or watching as ad-hoc committees form around these issues. At Butte College (part of the Butte-Glenn Community College District) in Oroville, Calif., President Diana Van Der Ploeg put together a 50-person steering committee. Open to the entire campus, the committee handles everything from working sustainability into the curriculum to writing grants to create a green technology center. And the effort already is paying dividends. Earlier this year, Butte was the grand-prize winner of Chill Out: Campus Solutions to Global Warming (www.campuschillout.org), a National Wildlife Federation competition that highlights exemplary campus initiatives.
The New STARS Program

Part of the difficulty of advancing sustainability at the college level is that there has been no standardized method for schools to track their progress or compare themselves against others. This will change in 2009 when the Association for the Advancement of Sustainability in Higher Education unveils its brand-new Sustainability Tracking, Assessment, and Rating System (STARS; aashe.org/stars).

Richland College in Dallas is one of 90 schools participating in the STARS pilot test. The program has allowed us to structure and organize the ways we assess our sustainability work,” says David Henry, the college’s chief sustainability officer. “It encompasses the entirety of our organization—everything from curriculum to staff development to facilities and operations to administration and community.” Henry looks forward to STARS’ online debut so that the entire campus can “learn from and share solutions forward to STARS’ online debut so that participants can learn from and share solutions forward to STARS.”

Leading by Example

The following community colleges have gone above and beyond in their quests for sustainability.

Houston Community College, Houston

Chancellor Mary S. Spangler sent an e-mail message to the entire college, inviting everyone to submit cost-saving or moneymaking ideas around the topic of sustainability. She received more than 600 ideas, including eliminating mailings by posting information on the school’s Web site. Spangler asked students to sort ideas into categories ranging from recycling to saving water. The e-mail note also asked students to identify who could help implement their ideas. “By acting on some of these ideas, we saved more than $300,000 in the first year,” says Spangler. “It was a great way to engage the whole college.”

Johnson County Community College, Overland Park, Kan.

Earlier this year, dining services started a refillable mug program, replaced Styrofoam with biodegradable paper products, replaced disposable plates/bowls with reusable hard plastic plates/bowls, integrated locally produced food where possible, and educated the campus about the importance of considering food miles when making dining choices. In September, the school held a Sustainability Expo and Dinner featuring local foods and wines. People met with farmers and private food producers to learn about sustainability. In an abundance of food waste management, increase recycling efforts, and reduce energy use. These efforts, which traditionally went unrecognized, are now being highlighted.

For some colleges, sustainability efforts have been concentrated in one area, such as dining. Schools have worked to reduce or eliminate Styrofoam and other paper products, plant organic gardens, and buy locally produced food whenever possible. Chris Laney, a history professor and chair of the recycling committee at Berkshire Community College (BCC) in Pittsfield, Mass., encourages colleges to make it easy for everyone to “do the right thing.” A couple of years ago, the handful of recycling bins scattered around campus were not being used correctly. So Laney formed an ad hoc group, obtained a grant for better, more-expensive recycling bins, and placed them throughout the campus. The school entered a competition—Recyclemania (www.recyclemaniacs.org)—and placed seventh nationwide in its category.

Student Activism

All of the effort around sustainability has resulted in an abundance of student activism. Hundreds of community college students have signed the Graduation Pledge of Social and Environmental Responsibility (www.graduationpledge.org), pledging, in part, that they will “explore and take into account the social and environmental consequences of any job...and try to improve these aspects of any organizations” for which they work. Students also have signed the pledge at Power Vote (powervotes.org), demanding an end to global warming, and are actively involved in Campus Climate Challenge (www.climatechallenge.org), a college-based campaign to reduce pollution.

At BCC, Earth Day is now Earth Week. Last year, students held a rock concert in a local park and organized a major cleanup. One student, with help from the faculty and custodians, gathered an entire day’s worth of trash from the dumpsters and spread it out in front of campus to demonstrate how much waste people are capable of disposing of in a day.

Back at Butte College, administrators and students are hard at work on a range of sustainability efforts. The college has hosted a green campus program, where participants attempt to save energy by building student awareness; advocates also have worked with a local university to plan and hold a sustainability conference. “I’m so proud of our students,” says Van Der Ploeg. “They’ve done a lot around sustainability on campus, gotten involved in community efforts, and worked with other colleges to start all sorts of programs. They’re taking it to a much higher level by helping others be passionate about it, too.”

Curriculum

Many community colleges also are working sustainability into their general education requirements, typically offering it as an elective course. But that is only a first step. The real challenge is in weaving sustainability throughout the entire curriculum.

“How do you get a Spanish, history, or math professor to see that sustainability can be part of what they teach?” asks Wynn Calder, director of University Leaders for a Sustainable Future and principal of Sustainable Schools in Washington, D.C. “It’s not about creating a required course, which is important but is only one piece. Schools need to figure out how to go green across the board.”

Mt. Hood Community College in Gresham, Ore., offers a National Sustainable Building Advisor Program (NaSBAP). This nine-month, certificate-training course is for people who want to apply sustainable concepts to the buildings they design, develop, and construct. Taught by expert instructors and guest speakers, the course includes a team project and field trips. Mt. Hood, the first of 20 community colleges to enter the field of sustainability, has already trained more than 200 educators.

Washitaw Community College (WCC), Ann Arbor, Mich.

In building the new WCC Health and Fitness Center, the top priority was to obtain LEED certification from the U.S. Green Building Council. The facility opened in September 2007, and this July, it became the first of its kind in the state to achieve Gold LEED status, the second-highest possible level of LEED certification. The Fitness Center’s environmentally friendly features include natural drainage plants that require little or no irrigation, and lights that turn on only when there’s not enough daylight.
Moving Toward a Sustainable Future

Sustainability is a lens through which increasing numbers of community colleges and other higher education institutions are collectively examining and acting upon our shared ecological, social, and economic world systems. In the United States, the national sustainability education trend is evident. The Chronicle of Higher Education, Inside Higher Ed, Time, Newsweek, ABC’s Nightly News, and other news media have reported on this development. Sustainability is being integrated into community college offering and planning, curricula, student life, operations and purchasing, and community partnerships. Students and staff at hundreds of campuses are engaged in sustainability committees and actions.

Businesses often refer to sustainability as "the triple bottom line," meaning the simultaneous creation of health, social, economic, and environmental systems. Businesses are ahead of higher education in many ways regarding sustainability. HCC is working to restore environmental integrity and improve economic prosperity in the area. "I’m always surprised how many people have heard about our involvement in the partnership, asking how we can work together online," says Hughes. "We see sustainability as an integrated discipline, and we want the community to see us that way, as well."

The Partnership for Environmental Technology Education (PETE) www.ateec.org/pete

The American Association of Community Colleges (AACC) and its member institutions are responding to this need. In November 2004, AACC passed a board resolution

Green Resources

Community Partnerships

It’s only natural for colleges and members of the surrounding community to work together on sustainability issues. "Community colleges are in a unique position to help students and their surrounding communities move from feeling overwhelmed about societal problems to understanding that solutions exist," says Debra Rowe, president of the U.S. Partnership for Education for Sustainability. Schools are hosting workshops on such topics as energy conservation, participating in regional energy studies and discussions, and creating local internships. "One thing that a community college can easily do," adds Judy Walton, director of strategic initiatives for the Association for the Advancement of Sustainability in Higher Education, “is invite the community onto campus to see its sustainability efforts.”

In addition to educating the public, schools are working with businesses to help solve environmental problems. Butte College partnered with Chico Electric to develop a program that trains students in solar installations. BCC is in talks with the state of Massachusetts to purchase a nearby 300-acre farm and run it as a sustainable agricultural system. The college is using partnerships with the Houston Food Bank to help resolve some of its supply-chain challenges. Colleges are getting involved in other ways, too—by improving downtown bike lanes or planting organic gardens at local elementary schools.

Gary Burbridge, director of sustainability at Grand Rapids Community College in Michigan, is part of the Community Sustainability Partnership (gspartners.org), a group of community organizations in western Michigan that is working to restore environmental integrity and improve economic prosperity in the area. “I’m always surprised when I get calls from people who’ve heard about our involvement in the partnership, asking how we can work together online,” says Hughes. “"We see sustainability as an integrated discipline, and we want the community to see us that way, as well."

The Partnership for Environmental Technology Education (PETE) www.ateec.org/pete

The American Association of Community Colleges (AACC) and its member institutions are responding to this need. In November 2004, AACC passed a board resolution in support of education for sustainability. AACC was also one of the founding associations of the Higher Education Associations Sustainability Consortium (HEASC). HEASC members consist of professional associations representing US and university presidents, approximately half of all the boards of trustees and a large majority of faculty directors, chief academic officers, business officers, college and university planners, purchasers, and student affairs staff. HEASC also supports the American College & University Presidents Climate Commitment, signed by more than 500 presidents in all 50 states. Its goals: to eventually eliminate greenhouse gas emissions and to educate students about the sustainability movement.

The United Nations recently defined sustainability education as "enabling people to develop the knowledge, values, and skills to participate in decisions that will improve the quality of life now and for the future of the planet for the future." This emphasis on decisionmaking and effective action encourages stakeholders to extend their focus beyond just descriptive analysis and analysis to educational programs that support solutions. Though it boasts less than 5 percent of the world’s population, the United States reportedly consumes more than 25 percent of the planet’s resources.

Given the world’s environmental and resource challenges and the crucial need for policy and behavioral changes, many community college faculties are choosing to make sustainability their curricula. The importance of working on real-world societal problems has also been recognized by the Disciplinary Association of Sociologists for Sustainability Education (DANS). DANS consists of more than 20 academic disciplinary associations collaborating to discuss and act upon their potential contributions to a sustainable future. Participants include the national or international academic associations for psychology, sociology, philosophy, religion, biology, chemistry, geology, political science, math, broadcasting, architecture, women’s studies, and others. The objectives of the DANS working groups are to integrate sustainability into curricula, professional development, standards, and cross-disciplinary projects. DANS has also been engaged in legislative actions about sustainability and educate the public about how to create a sustainable future.

Across the country, faculty are reorganizing courses and degrees so students can become literate about sustainability and have the knowledge, skills, and attitudes to engage in meaningful dialogue about the environment. Community colleges are uniquely positioned to support the emerging green economy by including sustainability education in workforce training programs, continuing education offerings, and technical programs across the full suite of academic disciplines. Dozens of colleges already offer courses in energy conservation, renewable energies, and sustainable design. Many colleges are addressing sustainability in existing vocational programs for heating and cooling, construction, facilities management, automotive, and industrial design. The National Science Foundation (NSF) has funded a number of Advanced Technological Education grants for energy management and renewable energy education; the U.S. Department of Labor, Energy, and Agriculture also have funded sustainability education. Changes are
happening on the legislative front, too. The Higher Education Sustainability Act was recently passed as a part of the Higher Education Reorganization Act—a move that likely will provide additional funding to sustainability education.

With support from NSF, the Consortium for Education in Renewable Energy Technology was formed to help community college and high school instructors, as well as remote students, gain access to courses and online curricular materials in renewable energies, energy management, and sustainability. Builders, architects, engineers, and interested community members are flocking to community colleges in search of such offerings.

Many community colleges are working across all areas of campus—student life, facilities, purchasing, planning, community partnerships—to foster a culture of sustainability on campus and throughout their respective regions. Professors are increasingly engaging students in projects built to create nationwide solutions and promote civic engagement, using such resources as Power Vote (www.powervote.org) and Campus Climate Challenge (www.climatechallenge.org), a consortium of more than 40 national student organizations working with presidents, faculty, and students to engage each other in the reduction of campus pollution and advocacy of sustainability policies.

Moving Forward
The timeline to address the effects of climate change and ecosystem degradation is short. The many initiatives already under way in the community college sector provide the precedent, and a growing list of best practices supplies the knowledge necessary for colleges to rise to the occasion. Let us move forward together into a sustainable future.

Debra Rowe is president of the U.S. Partnership for Education for Sustainable Development and a faculty member at Oakland Community College in Bloomfield Hills, Mich.

Preserving the Earth’s most vital resources is a task for everyone. As educators, we have a unique opportunity and responsibility to introduce our students and communities to “greener” ideas and raise awareness about the need to reduce harmful carbon emissions. As an academic community, we are largely responsible for teaching our stakeholders how to become better stewards of the planet by embracing the principles of sustainability through education and training. Within the community college system, our continued task will be to anticipate the skills necessary for the ever-changing job market and to adopt new programs that will support those emerging industries.

Those roles come together as we work to create a new pipeline of eco-conscious, highly skilled workers and students. But our policies must be innovative if they are to succeed.

Nearly five years ago, the Los Angeles Community College District (LACCD) embraced a precedent-setting green policy that would forever change its approach to education. The Board of Trustees saw an opportunity to develop a “greenprint” for how environmental design and construction could be done, mandating that all new buildings funded with at least half of the funds from its $2.2 billion Bond Construction Program be developed to fit Leadership in Energy and Environmental Design (LEED) standards. As a key component of the sustainability policy, the LACCD developed a renewable energy plan that included generating enough on-site, alternative power through solar, wind, geothermal, hydrogen-generation, and storage technologies at each campus to make all nine colleges energy-independent. Our 1.2-megawatt, $9 million solar installation at East Los Angeles College—along with other projects districtwide—are important steps to declaring that independence.

Adopting this policy has made LACCD one of the largest public-sector sustainable building efforts in the United States. As of today, 44 new buildings and two satellite campuses are slated to be LEED-certified. One of our most exciting projects is expected to also be certified by LEED and the Building Research Establishment Environmental Assessment Method—one of the first academic buildings to receive dual certification.

The sustainability policy extends beyond simply developing green buildings, serving to educate and train future workers, with a particular focus on underserved communities. Through the Green College Curriculum & Initiative, which focuses on architecture, diesel, water supply, wastewater, and sustainable construction, the LACCD will meet its goal to train workers and connect them to high-demand industries within the local workforce. All nine campuses are dedicated to training students for jobs for the new green economy in a variety of fields, including business, architecture, design, construction, utilities, and transportation. Students receiving a general education and transferring to four-year institutions will also be exposed to sustainable concepts and programs.

For the community college system, our task will be to expose, educate, and train much of the nation’s workforce on the value of sustainability. Having sound policies, programs, teaching methods, and content that address workforce development for the green marketplace advances efforts to better prepare people to care for and maintain the Earth’s resources.

For more information on LACCD’s sustainability policy or its Bond Construction Program, visit www.LACCDBuildsGreen.org.

Larry Eisenberg is executive director of facilities planning and development for the Los Angeles Community College District.