

**Cuyahoga
Community
College**



Sustainability at Cuyahoga Community College

**Compiled by the Cuyahoga Community College
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College Mission

Cuyahoga Community College's (Tri-C) mission is to providing high quality, accessible and affordable educational opportunities and services - including university transfer, technical and lifelong learning programs - that promote individual development and improve the overall quality of life in a multicultural community.

Commitment to Sustainability

Tri-C recognizes that its commitment to education and the community includes a sense of responsibility to our environment. Tri-C will lead by example by investigating, developing, and promoting sustainable policies, practices and curricula, with the goal of achieving sustainability throughout the College. The College also aspires to instill in our students, faculty, and staff a sense of stewardship towards the environment by giving them the information and support to continue sustainability efforts beyond the campus environment. We must strive to prepare our students, faculty, and staff to be leaders in creating and promoting a culture of diversity, sustainability and environmental sensitivity throughout our community.

Current Activities/Achievements

Tri-C leads the region in public education, academic innovation and cultural enrichment. Our commitment to sustainability is reflected in our curriculum, teaching methods, and student activities. The College offers both an Associates of Applied Science Degree and a Post-Degree Certificate in the emerging field of Environmental Health and Safety Technology. Faculty are working to teach principles of sustainability across the curriculum. Campus environmental clubs are dedicated to learning about and addressing the issues facing our community.

Tri-C's commitment to sustainability also manifests itself in the College's business practices. Tri-C's Corporate College West, a facility dedicated to training, education and employee development, was recognized with the Governor's Award for Excellence in Energy Efficiency in 2004. The award honors individuals, businesses, industries and organizations that have improved Ohio's economic competitiveness and environment through the effective and innovative use of energy efficiency. Tri-C was also the recipient of the award in 2003 for its HB 7¹ Energy Conservation Program, a major capital improvement program that targeted college-wide energy conservation.

Tri-C has already implemented several sustainable practices, which are outlined in the following report. Highlights of current practices include:

- Working for LEED Certification for the Center for Creative Arts
- Recycling computers and other electronics
- Implemented computerized preventative maintenance Roof Asset Management Program, using the latest in energy-efficient design
- Decommissioned underground heating oil storage tanks to prevent contamination
- Improving air quality through systematic maintenance and cleaning of duct work
- Committed to meeting efficiency standards mandated by House Bills 119 and 251
- Estimating a 21% savings in energy costs through House Bill 7 efficiencies

Timeline & Action Steps

While Tri-C has accomplished a great deal within the area of Sustainability, more work clearly needs to be done. In the FY09 College Goals, there is a commitment to include more efficient use of all resources, including staffing and finances. The College is now working to develop a more comprehensive Sustainability Program. As part of this effort, the College has set the following timeline and action steps:

- **June 2008:** Develop a Sustainability Policy to be adopted by the Board of Trustees
- **July 2008:** Hire a Sustainability Consultant to assist with the creation of a comprehensive Sustainability Plan
- **July 2008:** Hire a Sustainability Coordinator to implement the Sustainability Plan, monitor the recycling program, and work on LEED² standards for future construction projects
- **Fall 2008:** Expand recycling efforts to include paper, cardboard, plastic, aluminum and glass at the three main campuses, Unified Technology Center, and the District Administration Building
- **2008:** Research and review the possibility of purchasing a wind turbine for placement on the Eastern Campus expansion property

Over the next several years, Tri-C will continue to expand its sustainability efforts, developing more action steps and integrating sustainability into all areas of the College.

Budget

Cuyahoga Community College realizes that working to create sustainable practices throughout the College will require the investment of both time and financial resources. Below is a working budget for the current action steps.

Cost Category	Sources of Funds		
	Projected Costs	ODNR Grant	Tri-C General Fund
Personnel			
Sustainability Coordinator	\$ 67,000		\$ 67,000
Consultants*	\$ 128,000**		\$ 128,000
Other			
Recycling Bins/Containers	\$ 117,328**	\$ 50,000	\$ 67,328
Supplies			
Bags & incidental supplies	\$ 3,000		\$ 3,000
Marketing	\$ 5,000		\$ 5,000
Printing	\$ 3,000		\$ 3,000
Hauling	\$ 40,000		\$ 40,000
TOTAL	\$ 363,328	\$ 50,000	\$ 313,328

* Does not include project related LEED Certification Consultants and added construction costs

**Indicates one time cost

Existing Sustainability Activities

Cuyahoga Community College already has many sustainable practices in place throughout all areas of the College. Highlights from each area are detailed below.

Academic & Student Affairs

The need for personnel trained in sustainability continues to increase as businesses seek to be more environmentally responsible and for ways to comply with the more complex regulations stipulated by the Environmental Protection Agency (EPA) and Occupational Safety and Health Administration (OSHA), as well as a greater awareness of “green” issues in industry.

Tri-C prepares individuals to work in professions related to promoting sustainability and care for our environment. The College offers both an Associate of Applied Science Degree as well as a Post Degree Certificate in Environmental Health and Safety Technology. Individuals who complete the degree program are prepared for immediate work in various field or management roles. Field work opportunities include performing air monitoring, ground water and soil sampling, chemical emergency response actions and evaluating and cleaning up environmental contamination. Management work opportunities include working with regulatory compliance for organizations such as the Environmental Protection Agency and Occupational Safety and Health Administration as well as in private industry, government or the consulting field.

After earning an associate’s degree from Tri-C, individuals can transfer to either Kent State University, Ohio University, or University of Findlay to earn a Bachelor of Science degree. Although a bachelor’s degree is not required for initial work in the field, it is often considered as important for promotional purposes.

Individuals who have earned an associate’s degree or higher and want to upgrade or broaden their knowledge in the field, the College offers a one-year post degree certificate program.

Teaching Sustainability:

- In January 2008, all faculty were provided with a book that provided 147 practical tips for teaching sustainability regardless of the discipline.
- The College has received a Federal appropriation for Alternative Energy/Sustainability academic programming. Engineering Technologies is researching, developing, and deploying academic programs for the training of technicians who will install, configure, and maintain alternative energy equipment based on fuel cells, solar panels, wind turbines, and “Green Construction/LEED Certification.” These technicians will also be prepared to assume sales and customer support roles in this emerging industry.

Campus Sustainability Initiatives:

- The Eastern and Western campuses have environmental clubs that meet to discuss sustainability issues and to plan campus activities.
- The Metropolitan campus has several employee groups working on sustainability issues. These groups have hosted Campus Sustainability Day and Earth Day/Week.
- The college’s Global Issues Resource Center on the Eastern Campus provides environmental information and training to people in the community, including its Earth Trek Program for middle school students and “Earth Balloon.”

Workforce & Economic Development

The Green Academy was established in early 2008 to serve the training needs of the construction sector and was met with strong initial enrollment in its workshops. In our effort to move sustainability training for business and industry at Cuyahoga Community College to new heights, the program was moved to Corporate College, which positions the Academy as a provider of professional and technical training in several directions, in addition to the original green building focus. Structurally, The Green Academy has been expanded beyond green building and renamed 'The Green Academy and Center for Sustainability, GACS.' The training services will include not only individual professional training to support the green revolution, but also training and services for green businesses. Training and Business services are categorized into four areas: 1) Green Building and Community (the Built Environment), 2) The Advanced Energy Economy, 3) Sustainable Healthcare, and 4) The Green Business Innovation Center. Finally, the GACS is working with foundations and city government to launch a workforce development effort, called "Pathways out of Poverty Through Green Collar Jobs", a first concurrent model with the city of Oakland, California, which will provide the growing green business community with a skilled workforce and promote green entrepreneurial spirit.

Facilities Planning, Capital & Construction

- Working on HB 7 Energy Cost reduction projects, including:
 - Energy efficient lighting and lighting controls
 - New Boiler controls and economizers
 - Water saving measures
 - Building controls upgrades
 - Chiller load management
 - Demand Ventilation
 - Kitchen and Lab hood controls
 - Installation of pool covers
- HB7 Guaranteed Savings:
 - Phase I - \$19,808,057
 - Phase II – \$2,187,397
 - Phase III - \$13,707,238
- Estimating a 21% total savings for the College after Phase III is complete
- Working to comply with HB-251³ requirements to have 20% energy savings by 2014
- Working for LEED Certification for the Center for Creative Arts and other major projects
- Requesting contractors submit recyclable proposals
- Developing Green building standards for use when replacing or renovating areas – examples: low-flush toilets, energy efficient light fixtures, sustainable carpet

Recycling

- Expanding the College's recycling program to include paper, cardboard, glass, aluminum and plastic
- Using recycled content toilet paper
- Recycling tires, oil, and batteries through the vendors that maintain the fleet
- Recycling old light bulbs
- Repair or recycle furniture whenever possible
- Recycling fluorescent lighting and ballasts
- Recycling computers and other electronics

Operations

- Setback temperatures on nights and weekends in all buildings
- All three campuses have inventory of all trees growing on campus, their condition, and recommendations for maintenance
- Using some green cleaning products
- Implemented computerized preventative maintenance Roof Asset Management Program (RAMP) for scheduled inspection, repair and replacement of all roofs college-wide. Many roofs have already been replaced and incorporate the latest in energy-efficient designs

Procurement

- Researching suppliers that provide recycled copy/printer paper
- Offering recycled products through contract with Corporate Express
- Planning for future equipment purchases to be Energy Star certified
- Recycling paper through shredding program with Iron Mountain
- Contracting with Green vendors
- Keeping fleet at maximum performance and gas mileage through service inspection/maintenance schedule
- Investigating the purchase of hybrid SUVs for Public Safety

Risk Management & Business Continuity

- Completed Resource Conservation and Recovery Act (RCRA) audit for hazardous materials college-wide and hazardous material handling training for effected staff

Chemicals:

- Meeting the EPA's required standards for cradle to grave hazardous waste disposal practices
- Hazardous Waste Removal Company will either recycle the waste or use it in a fuel blend that is burned. The last option is to put it in a landfill
- Conducted inventory of all hazardous materials
- Training given to all maintenance staff on Freon, removing units that use Freon, new equipment does not use Freon

- Applied waste minimization and micro experimentation. Also trying to use alternative substances for experiments – non-hazardous chemicals
- Purchasing only those chemicals that are needed – on demand chemical delivery
- Disposed of all pre-existing waste
- Installed acid neutralization tanks at each campus for chemicals from the labs – non-hazardous chemicals neutralized before going into sewer system
- Monitoring to ensure hazardous chemicals are not going down the drain from the labs
- Reusing cafeteria grease in diesel fuel
- Recycling lab batteries and gas cylinders

Air Quality:

- Obtained permits for boilers and all boilers have been upgraded to those that produces less pollution
- Decommissioned underground heating oil storage tanks to prevent contamination
- Monitoring other underground tanks for leaks - detectors installed with BUSTer⁴ standards
- Inspecting gas pumps regularly

Indoor Air:

- Testing and monitoring for radon, temperature, humidity, carbon dioxide, carbon monoxide, natural gas leaks
- Testing efficiencies of air circulation
- Using latex environmentally friendly paints
- Removing lighting ballasts with PCBs
- Mitigating asbestos on a systematic basis
- Improving air quality through systematic maintenance and cleaning of duct work

Business Services

Campus Dining - Aramark

- Recycling all cardboard at all three campuses
- Using paper cups at all Java City locations and for cold fountain beverages in the Cafes
- Using SCA brand napkins – a cost neutral product made from 100% recycled paper, no chlorine used, and vegetable based inks.
- No use of chlorine bleach
- Using cleaning products from Ecolab (used in hospitality program as well)
- Recycling cooking oil, with future plans for it to be used as an alternative fuel source for service vehicles used by the recycler/fryer oil service company
- Purchasing products locally when possible
- Using natural chicken breasts (no hormones, antibiotics, or fee with animal byproducts, no other artificial ingredients, minimal processing) with no incremental costs
- Selling organic sodas at some Java City's and Wi-Fi café
- Using recyclable plastic for all of the Grab-n-Go packaging and Home Zone/salad bar “to go” packaging
- Using cardboard packaging for Bene Pizza program
- Refillable mug program at Java City

Copy Centers

- Recycling all trimmed and scrap paper from Reprographic shop - averages two 400lbs bins per week, but can be up to 1200 lbs during peak times

Book Centers

- Recycling cardboard boxes

- Installing collection points for batteries and cell phones
- Buying back text books and resell to students or other universities
- Partnering with Nebraska Book Co. for the “Sell Your Books – Plant a Tree” initiative. Nebraska Book Co. will provide monetary support based on the volume of book buyback towards the acquisition and planting of a tree on campus

Business Office

- Implementing electronic document processes, including scanning/imaging, to reduce paper consumption

Accounting & Financial Operations

- Deployed comprehensive online electronic pay statements through My Tri-C Space for employees with a \$50,000 savings anticipated as printed/mailed pay statements are phased out
- Committed to meeting efficiency standards mandated by HB 119⁵. The College is projecting savings of over \$7 million dollars through these efficiencies.

End Notes

1. **House Bill 7 (HB 7)** – Ohio law (R.C. 3345.61 *et.seq.* – commonly referenced as “House Bill 7”) allows the College to enter into contracts with a consultant based on a Request for Proposal process for the implementation of energy savings measures. It also provides for unconventional funding mechanisms, allowing the College to pay for projects with energy costs savings over a 10-year period.
2. **LEED** – The Leadership in Energy and Environmental Design (LEED) Green Building Rating System, developed by the U.S. Green Building Council provides a suite of standards for environmentally sustainable construction
3. **House Bill 251 (HB 251)** – Requirement for all publicly funded colleges to reduce energy consumption by 20% by 2014. The measure used under this regulation is btu/sq. ft. consumption. Features of the bill include the development of an energy master plan, required energy efficient design criteria for new and renovated spaces, preferred energy efficient features for leased properties, and the sharing of best practices across organizations via the required annual reporting.
4. **BUSTer** – Bureau of Underground Storage Tank Regulations - through the State Fire Marshall’s Office
5. **House Bill 119 (HB 119)** – Based on the Governor’s Compact Efficiency Standard calling for state-supported higher education institutions to freeze tuition and fees through 2009 and to achieve a 1% savings through identified internal efficiencies by August 31, 2007 and 3% savings through identified internal efficiencies by August 31, 2008. Each state-supported institution of higher education shall also commit to increasing inter-institution collaborations and partnerships and enhancing efficiencies with the goal of achieving measurable increases in savings.