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COVER:

*A 19-year employee, Dave Henderson, practices green cleaning at the Power Center. The University's newest facility was built to earn LEED Silver certification.*



# Duquesne University: Greening an Urban Campus

SUSTAINABILITY





Through forward-thinking environmental research, a sustainability-infused business curriculum and a recognized track record of community involvement, the University as a whole serves as a laboratory.

Ron Kasper, 5-year employee, manages inventory of environmentally friendly goods in the University receiving dock.

COMMITMENT

**Sustainability is intrinsic** to Duquesne University's mission—a charge that encompasses what our Spiritan sponsors call the "integrity of creation," a profound respect for God's gift of the world.

One of the ways the University advances this mission is through responsible stewardship of natural resources. Duquesne's progressive efforts to achieve, maintain and advance high environmental standards began decades ago.

We remain committed to the continual implementation of sustainable principles in the management and development of our campus.

Through forward-thinking environmental research, a sustainability-infused business curriculum and a recognized track record of community involvement, the University as a whole serves as a laboratory, where experiments and discoveries produce a better future for us and for future generations.

With conviction in our role as diligent stewards of creation, it is my pleasure to share an overview of Duquesne University's many contributions toward a more sustainable planet.

*Charles J. Dougherty*

CHARLES J. DOUGHERTY, PH. D.  
President

SUSTAINABILITY



The Sklar Skywalk connects the Power Center to Duquesne's main campus and is believed to be the highest pedestrian bridge in the city. The skywalk pays homage to the history of Duquesne and the City of Pittsburgh with its contemporary arch frame design using steel, aluminum and glass.

**The U.S. Environmental Protection Agency recognized Duquesne University for the past two years as the Individual Conference Champion for purchasing more green power than any other school in the Atlantic 10 Conference.**

100%

**ENERGY**

**For over a decade**, Duquesne University has generated the bulk of its own electricity with a clean-burning natural gas turbine located at the heart of campus. This co-generation plant produces approximately 85% of the power used to light, heat and cool the University's facilities with overall efficiency greater than 70%. It is Pennsylvania's first approved generation system for creating Alternative Energy Credits.

Sustainable initiatives reached an exceptional level with the purchase of more than 13 million kilowatt hours of renewable energy credits. This combination of energy generation and renewable energy purchase led Duquesne University's campus to rely 100% on clean energy.

A highly efficient cooling system that relies on ice—the first of its kind in a Pittsburgh academic institution—has bolstered the University's efforts in responsible energy consumption. The process begins by creating ice in 28 massive storage tanks. The ice then melts, creating chilled fluid that is pumped across campus and cools multiple buildings. By creating the ice at night, the University reduces its peak energy demand. As Duquesne does its part to ease the strain on the power grid, other consumers' needs can be more easily met and utility companies are able to increase capacity, ultimately lessening the need for new power plants.

CLEAN ENERGY



Duquesne University does its part to advance a greener economy by supporting and promoting the purchase of environmentally friendly products with recycled, recyclable, reusable, refillable, repairable and cost-effective content.

Rodger Hoye, 31-year employee, ensures that Rockwell Hall is properly maintained with green cleaning chemicals.

OPERATING GREEN

Duquesne University's facilities management employees are commissioned to investigate and bring forth opportunities to improve the environmental quality of operational processes. They research, benchmark, and consistently find ways to incorporate sustainable methods in the campus daily upkeep.

Green cleaning and green painting are among the many practices Duquesne University has implemented. This involves assimilating green maintenance methods and selecting products and chemicals recognized with high environmental standards. Currently, over 80% of cleaning products used on campus fit this category.

Selecting paint for Duquesne's facilities involves much more than just color palettes; it entails environmental considerations consistent with the University's high sustainable standards. For this reason, Duquesne purchases paint products that utilize the most innovative, environmentally safe technology and are VOC free.

Through the implementation of a green clause in its request for proposals, the University urges bidders to provide all pertinent and verifiable information with regard to the amount of post-consumer recycled content in the products. The University promotes the use of minimal packaging and the use of recycled/recyclable products in packaging.



80%



ENVIRONMENTAL





Duquesne University is committed to including sustainable design concepts in all new construction and major renovations.

The Power Center transformed a blighted area, dramatically improving the appearance and vitality of the Forbes Avenue corridor.

**BUILDING GREEN**

The University's newest facility, the Power Center, was built according to sustainable principles, and is being assessed to earn the Leadership in Energy and Environmental Design (LEED) Silver certification of the green building rating system.

The main level of the Duquesne Union underwent substantial aesthetic, functional and sustainable enhancements. This renovation project used an environmentally responsible waste management plan that diverted over 75% of the construction, demolition and packaging debris from landfills to a specialized facility. This project is also seeking LEED certification.

Conservation efforts on campus are continually researched, implemented and modernized. In the residence halls, water conservation devices have reduced water consumption by approximately 20,000 gallons per year. Extensive lighting and control upgrades were completed in 14 buildings and recent renovations included the installation of ENERGY STAR-rated equipment. Roofing upgrades that incorporate better insulation and reflective coats have also reduced the energy required to heat and cool the space.

Lush green areas filled with native plants were created to enhance the quality of life on campus. Stately, shady oak trees line Academic Walk, beautifying Duquesne's urban campus.



75%

CONSERVATION





In 2008, over **300,000 pounds** of comingled recyclable products were collected from campus and sent to appropriate reprocessing facilities.

*Recycling containers have been strategically placed in numerous locations throughout campus.*



**KEEPING IT GREEN**

**While recycling practices** have become more convenient, they still require a degree of knowledge, discipline and commitment from all parties involved. Recycling options have been available in campus buildings for several years; however, the University has recently intensified its focus on training and informing the campus community on recycling practices. With the mindset that every person impacts the campus environment, Duquesne has also partnered with student groups to promote behavior change and individual responsibility.

To maintain an environmentally responsible campus, Duquesne also partners with many vendors, including the University's food-service provider, ARAMARK. In the last three years, ARAMARK has implemented measures to reduce the environmental impact of its operations on our campus, including: recycling 100% of the fryer grease used throughout campus to be converted into biodiesel fuel, eliminating bottled condiments by switching to bulk dispensers, purchasing from local suppliers, substantially reducing the use of foam and converting the Options Food Court from paper to china.



RESPONSIBILITY





**Duquesne's Center for Environmental Research and Education conducts applied research directed toward the critical environmental problems of the region and educates environmental professionals for the 21st century.**

*CERE students engage in restoration and preservation efforts at Murphy's Bottom.*



**LEARNING GREEN**

**Duquesne students benefit** from an array of cross-curricular opportunities covering many aspects of sustainability.

Duquesne's Center for Environmental Research and Education (CERE) has charted a new path in the University's environmental commitment by completing its first yearlong, campus-wide greenhouse gas emissions inventory.

Since 2006, professors and students from Duquesne University's Bayer School of Natural and Environmental Sciences have volunteered at Murphy's Bottom, a habitat restoration project led by the Pennsylvania Department of Environmental Protection. Duquesne students conduct baseline biological inventories, collecting and cataloguing samples of plants and animals to define the species and biological communities at the site. These inventories must be completed prior to implementing habitat modifications.

Duquesne University has been ranked No.1 worldwide among schools of its size and No. 8 overall by the Aspen Institute. This ranking recognized the school's leadership in the integration of social and environmental issues into its Master of Business Administration (MBA) program. The MBA Sustainability is an accelerated, one-year master of business administration degree program offered by the internationally accredited Donahue Graduate School of Business. The MBA Sustainability is one of the only MBA programs in the world that fundamentally and thoroughly incorporates sustainability into its curriculum.

PROFESSOR





Community service and outreach are an integral part of the college experience at Duquesne. Each year about **7,900 Duquesne students, faculty and staff** volunteer over **200,000 hours.**

**200,000**

*Duquesne students volunteer at Spring Clean-up in the Uptown neighborhood—an annual community project sponsored by the University’s Spiritan Campus Ministry.*



**A GREEN FUTURE**

Duquesne University equips future leaders to be distinguished not only by intellectual achievement and professional skills, but also by their ethical and responsible roles in society.

While we take great pride in the University’s strides—in and out of the classroom—toward a sustainable future, we are aware that this endeavor calls for persistent effort.

Respect for our planet is integral to the University’s mission and fundamental to carry on our legacy through this generation and the ones to come.

We are learning, researching and working toward a greener campus and a greener world.



**DUQUESNE**