



ENVIRONMENTAL PROTECTION

Air Pollution Training Institute

This training institute assists state and local air pollution control agencies in the acquisition of professional level skills needed for effective conduct of air pollution abatement programs. One of a network of centers and institutes operated by the EPA at universities throughout the U.S., the APTI provides professional training experiences for air pollution control professionals. The program is carried out using one of three types of training: conventional academic training, intensive short course instruction, and special seminars and short courses on the EPA's Distance Learning Network. Conventional academic training offers instruction in air pollution control science and related subjects as required for professional training of air pollution abatement practitioners. Academic training supports students in academic programs leading to the Master of Public Health (MPH) and Master of Science (MS) in public health degrees. Short courses and distance learning seminars are scheduled throughout the year.

Partners:

UIC Public Health
United States Environmental
Protection Agency

Contacts:

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Dates active:
1991–2007

Assessing Effectiveness of Alternative Fuel Vehicle Fleet Replacement in Local Government

Although recent legislation and policy has encouraged the use of alternative fuel vehicles in public fleets, full scale AFV adoption is still a new phenomenon. Past studies have examined select aspects of environmental impacts and purchase behavior for specific types of AFVs, a simultaneous comparison of implementation and effectiveness of different fuel types and engine technologies within a single fleet over time has not been undertaken. This project assesses the implementation and effectiveness of an ongoing mandatory AFV fleet replacement policy in DuPage County Forest Preserve (DCFP) in Illinois, which has adopted a self mandate to entirely replace its fleet with AFVs over a 10 year time span. The project is currently supporting three manuscripts: (1) an examination of the environmental and economic costs and benefits of at the half-way point of the policy implementation; (2) an assessment of the internal knowledge development and learning processes that take place when a public agency is tasked with full scale adoption of new technology; and (3) a study of AFV end user behavior. Findings will provide policy makers with detailed dynamic understanding about the cost, benefits, gains, losses, and lessons learned during the process of fleet replacement.

Partners:

UIC Engineering
UIC Public Administration
UIC Urban Planning and Public Affairs
Institute for Environmental Science and Policy

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Dates active:
2004-present

(see also Transportation Innovations)

Clean Air Coalition of Harvey

Harvey, Illinois is a low-income, predominantly African American community located approximately four miles south of the Chicago city limit. Harvey residents face a number of indoor and outdoor air quality problems that can impact asthma and other health conditions. This program works to promote improvements in indoor and outdoor air quality.

Partners:

UIC Public Health
City of Harvey (Illinois)
Family Christian Health Center
Ingalls Memorial Hospital

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Dates active:

September 2005–present

Dorothy Bradley Atkins Medicinal Plant Garden

The Dorothy Bradley Atkins Medicinal Plant Garden contains more than seventy species of medicinal plants, many of which are mainstay drug-producing plants whose products are currently in use in clinical practice around the world. It builds upon the College's long-standing reputation as one of the world's foremost centers of natural products research. The garden exists not only for educational and research purposes, but also for the enjoyment it offers as an island of beauty on the campus of the University of Illinois at Chicago.

Partners:

UIC Pharmacy

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Dates active:

July 2002–present

(see also *Environmental Protection*)

Energy Resources Center (ERC)

ERC is an interdisciplinary public service, research, and special projects organization dedicated to improving energy efficiency and the environment. ERC was established in 1973 by the Board of Trustees as an approved Illinois Board of Higher Education center with a mandate to conduct studies in the fields of energy and the environment and to provide industry, utilities, government agencies and the public with assistance, information, and advice on new technologies, public policy, and professional development training.

The Center was created as a “fast response” team of experts capable of quickly extending technical expertise, advice, and professional assistance to organizations in need of the Center's resources.

Partners:

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| UIC Engineering | Commonwealth Edison Company |
| American Council for an Energy Efficient Economy | Electric Power Research Institute |
| American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) | Midwest Energy Efficiency Alliance (MEEA) |
| Association of State Energy Research and Technology Transfer Institutions (ASERTTI) | National Association of State Energy Officials (NASEO) |
| BP Foundation | National Energy Management Institute |
| | Nicor, Inc. |

Contacts:

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Dates active:

1973–present

(see also *Industry Partnerships*)

Great Lakes Centers for Occupational and Environmental Health

The mission of the Great Lakes Centers is to promote a healthy human environment in our workplaces and communities through the academic triad of teaching, research, and service. While the Great Lakes Centers takes a universal approach to improving, promoting, and maintaining the health of workers and communities, we devote special attention to the problems and needs of minority and disadvantaged workers and communities, the specific occupational and environmental safety and health needs of our region, and to the development of innovative and interdisciplinary approaches to addressing these needs.

The Centers include a NIOSH Education and Research Center, an ATSDR/USPA-funded Center for Children's Environmental Health (Region V PEHSU), a NIH Fogarty-funded Center for Global Environmental and Occupational Health, a CDC-funded Center of Excellence in Environmental Health, and the Occupational Health Services Institute.

Partners:

UIC Public Health
John H. Stroger, Jr. Hospital of Cook County
University of Illinois at Urbana-Champaign

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Environmental Health
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Dates active:

1977–present
(see also Health and Wellness)

Green Design Studio, “Extreme Green”

Collaborative, simultaneous design studios with UIUC Department of Landscape Architecture, and UIC CUPPA Urban Design. Focus on Green Neighborhood Design with specific site West Garfield Park. UIC School of Architecture studio led by Assistant Professor Penelope Dean, with the title “Extreme Green.” Studio takes ten approaches to “Extreme Green,” looking at the city as a whole and then testing concept on specific site.

Partners:

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| UIC Urban Planning and Public Affairs | Landscape Architecture Program (UIUC) |
| UIC Department of Planning and Urban Design | City of Chicago Department of Planning |
| UIC City Design Center | City of Chicago Department of Environment |
| UIC School of Architecture | |

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Dates active:

Fall 2006: Development phase along with coordination with initial UIUC and CUPPA Studios.
Spring 2007: UIC School of Architecture Studio “Extreme Green”
(see also Arts and Culture)

Green Neighborhood Design Studio

The City of Chicago Department of Environment approached the UIC City Design Center in the Spring of 2006 about developing studio-based investigations of sustainable neighborhood design for the Garfield Park neighborhood. The goal of the overall Green Neighborhood Design Studio is to produce innovative design and planning proposals that explore, question, and respond to the notion of “green urbanism” in the Chicago, Garfield Park, and site context. Various City of Chicago Departments, the UIUC Department of Landscape Architecture, the UIC Department of Architecture and Urban Planning and Policy Program are all participants in the Studio.

Partners:

UIC School of Architecture
Department of Landscape
Architecture (UIUC)

Contacts:

Roberta M. Feldman
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Dates active:

September 2006–May 2007
(see also Neighborhood Revitalization)

Industrial Assessment Center (IAC)

UIC is a designated U.S. Department of Energy (USDOE) Office of Industrial Energy Technologies Industrial Assessment Centers (IAC). Along with twenty-six other universities across the United States, UIC now offers no cost industrial assessments. These assessments are performed by students from various engineering disciplines. Energy conservation, waste minimization and process improvement recommendations have resulted in an average annual savings of nearly \$59,000 per plant assessment.

Each assessment includes:

- Measurement of combustion efficiency for all fuel burning equipment
- Measurement of electric motor operating parameters
- Evaluation of compressed air and steam systems
- Inventory of all ancillary energy users within the plant
- Development of a process flow map

Partners:

UIC Engineering
Illinois Commerce Commission
Nicor, Inc.
Rutgers University
United States Department of Energy,
Office of Industrial Technologies

Contacts:

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Dates active:

2001–present

(see also Industry Partnerships)

Institute for Environmental Science and Policy

The mission of IESP is to advance multidisciplinary research and scholarship within the environmental and health sciences, engineering, economics, and the social sciences among UIC's faculty and students, to prepare the next generation of environmental scientists and decision-makers, and to transmit workable solutions for environmental problems to the public sector. IESP's core theme is to advance understanding of the relationship between anthropogenic impacts and environmental health.

Partners:

UIC Vice Chancellor for Research

Contacts:

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Environmental Science and Policy
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Dates active:

1998–present

Midwest Combined Heat and Power Applications Center (MAC)

The Midwest CHP Application Center promotes the development and deployment of integrated systems that provide on-site electrical generation and utilize the heat from the generation equipment to provide cooling and/or heating for the building. The Center serves to identify and promote the use of viable CHP technologies and systems in applications where they can increase energy efficiencies, reduce operating costs, reduce electrical loads on the utility electrical grid in areas where it is taxed, and shave peak load demands from the grid. The Application Center will serve to bring together manufacturers, utilities, building operators, research and development organizations, industry associations, energy service companies, architects and engineers, and national laboratory personnel to promote on-site and near site power generation, energy recovery, and energy management and utilization for commercial, institutional, multifamily and community based buildings.

Partners:

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| UIC Engineering | Minnesota Public Utilities Commission |
| City of Chicago, | Nicor, Inc. |
| Gas Technology Institute (GTI) | Public Utilities Commission of Ohio |
| Illinois Commerce Commission | United States Department of Energy |
| Indiana Utility Regulatory Commission | United States Environmental Protection Agency |
| Iowa Department of Natural Resources | Wisconsin Public Service Commission |

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Dates active:

2001–present

(see also *Industry Partnerships*)

Post Occupancy Evaluation of Lincoln Park Natural Habitat Restoration Areas

In 1996 the North Central Research Station developed partnerships with the Chicago Park District and affiliated groups to apply participatory processes to the planning and design of critical natural areas within Lincoln Park, one of the largest city parks in the US. A framework plan for park restoration and management that identified areas within the park for improvement and enhancement of their natural qualities, and for fulfilling specific ecological goals, such as improving water quality and increasing migratory bird habitat. Four such areas within Lincoln Park were identified: Montrose Point, the Lily Pool, North Pond, and the Bird Sanctuary.

The North Central Research Station-Chicago of the USDA Forest Service asked the City Design Center to conduct a post-occupancy evaluation (POE) of the four restored natural habitat areas in Chicago's Lincoln Park. The intent of the POE would be to assess users' responses to the four restored nature areas. The City Design Center proposed to extend the application of POE methods to address questions of how well natural environments work for people within broader considerations of ecological sustainability, historical integrity, and contextual compatibility. The Center conducted interviews with users and behavioral observations of the four restored areas to assess the impact of these changes on users' evaluations and use of these park areas. Overall the findings showed that the users appreciated the restoration of the four areas and used them as intended. As anticipated, park users feel that "contact with nature" and "habitat restoration" are the most important aspects of urban parks.

Partners:

United States Department of Agriculture,
Forest Service, North Central Research
Station

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Dates active:

June 2003–June 2006

Residential Energy Assistance Program (REAP)

Helps homeowners understand the energy costs associated with owning a residence. Helps identify energy efficiency improvements to reduce natural gas and electric bills.

Partners:

UIC Engineering

Chicago Department of Environment

Illinois Department of Commerce and
Economic Opportunity

Illinois Institute of Technology

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