



2018 Report on Efforts by State Universities to Promote the Green Technology Industry

June 2018

“The Board of Higher Education and the Illinois Community College Board shall annually publicize on their Internet websites information concerning efforts made by State

universities and community colleges to promote the green technology industry, including the development of new academic degree and certificate programs, courses of instruction, and initiatives made by these State universities and community colleges to align green jobs programs with employer needs.” (Source: P.A. 97-241, eff. 8-4-11.)

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Degrees Offered and Centers Established by Illinois Public Universities that May Be Used to Promote the Green Technology Industry

| Institution Name | Level | CIP2K | Program Name |
|-----------------------------|-------|---------|---|
| Chicago State University | 6 | 45.0701 | Post-baccalaureate Certificate in Geographic Information Systems or Community Development |
| | 7 | 45.0701 | M.A. in Geography |
| | 7 | 26.0101 | M.S. in Biological Sciences |
| | 7 | 45.0701 | M.A. in Geography |
| Eastern Illinois University | 5 | 26.0101 | B.S. in Biological Sciences |
| | 5 | 40.0601 | B.S. in Geology |
| | 5 | 45.0701 | B.S. in Geography |
| | 6 | 45.0702 | Post-Baccalaureate Certificate in Geographic Information Sciences |
| | 7 | 13.1316 | M.S. in Natural Sciences |
| | 7 | 26.0101 | M.S. in Biological Sciences |
| | 7 | 26.1201 | MS in Biochemistry and Biotechnology |
| | 7 | 30.0601 | M.S. in Sustainable Energy |
| | 7 | 45.0702 | P.S.M. in Geographic Information Sciences |
| | 59 | 90.1505 | Center for Clean Energy Research and Education |
| | 59 | 90.4507 | Geographic Information Science Center |
| Governors State University | 5 | 26.0101 | B.S. in Biology |
| | 6 | 13.1322 | Post-Baccalaureate Certificate in Biology Education |
| | 7 | 26.1305 | M.S. in Environmental Biology |
| Illinois State University | 5 | 01.0000 | B.S. in Agriculture |
| | 5 | 13.1322 | B.S. in Biological Sciences Teacher Education |
| | 5 | 15.0503 | B.S. in Renewable Energy |
| | 5 | 26.0101 | B.S. in Biological Sciences |
| | 5 | 26.0202 | B.S. in Biochemistry |
| | 5 | 26.0202 | B.S. in Biochemistry and Molecular Biology |
| | 5 | 26.0406 | B.S. in Molecular and Cellular Biology |
| | 5 | 40.0601 | B.S. in Geology |
| | 5 | 45.0701 | B.A. and B.S. in Geography |
| | 5 | 51.2202 | B.S. in Environmental Health |
| | 7 | 01.0000 | M.S. in Agriculture |
| | 7 | 26.0101 | M.S. in Biological Sciences |
| | 7 | 40.0699 | M.S. in Hydrogeology |
| | 17 | 26.0101 | Ph.D. in Biological Sciences |
| | 59 | 90.2703 | Center for Collaborative Studies in Mathematical Biology; Intercollegiate Biomathematics Alliance |

| Institution Name | Level | CIP2K | Program Name |
|--|-------|---------|--|
| Northeastern Illinois University | 5 | 03.0103 | B.A. in Environmental Studies |
| | 5 | 03.0104 | Bachelor of Science in Environmental Science |
| | 5 | 26.0101 | B.S. in Biology |
| | 5 | 40.0601 | B.S. in Earth Science |
| | 5 | 45.0701 | B.A. in Geography |
| | 7 | 26.0101 | M.S. in Biology |
| | 7 | 40.0601 | M.S. in Earth Science |
| | 7 | 45.9999 | M.A. in Geography and Environmental Studies |
| | | | |
| Northern Illinois University | 5 | 03.0103 | B.A./B.S. in Environmental Studies |
| | 5 | 14.0501 | B.S. in Biomedical Engineering |
| | 5 | 26.0101 | B.S. in Biological Sciences |
| | 5 | 40.0601 | B.S. in Geology and Environmental Geosciences |
| | 5 | 45.0701 | B.A. and B.S. in Geography |
| | 7 | 26.0101 | M.S. in Biological Sciences |
| | 7 | 40.0601 | M.S. in Geology |
| | 7 | 45.0701 | M.S. in Geography |
| | 17 | 26.0101 | Ph.D. in Biological Sciences |
| | 17 | 40.0601 | Ph.D. in Geology |
| | 17 | 45.0701 | Ph.D. in Geography |
| | 59 | 90.0301 | Analytical Center for Climate and Environmental Change |
| | 59 | 90.2602 | Center for Biochemical and Biophysical Studies |
| | 59 | 90.2604 | Plant Molecular Biology Center |
| Southern Illinois University Carbondale | 5 | 01.1101 | B.S. in Plant and Soil Science |
| | 5 | 01.1201 | B.S. in Crop, Soil, and Environmental Management |
| | 5 | 03.0501 | B.S. in Forestry |
| | 5 | 13.1322 | B.S. in Biological Sciences |
| | 5 | 15.0303 | B.S. in Electrical Engineering Technology |
| | 5 | 26.0101 | B.S. in Biological Sciences |
| | 5 | 26.0301 | B.A. and B.S. in Plant Biology |
| | 5 | 26.0502 | B.S. in Microbiology |
| | 5 | 40.0601 | B.A. and B.S. in Geology |
| | 5 | 45.0701 | B.S. in Geography and Environmental Resources |
| | 6 | 40.0601 | Post-Baccalaureate Graduate Certificate in Earth Science |
| | 6 | 45.0701 | Post-Baccalaureate Certificate in Geographic Info Sciences |
| | 6 | 45.0701 | Post-Baccalaureate Certificate in Sustainability |

| Institution Name | Level | CIP2K | Program Name |
|--|-------|---------|---|
| Southern Illinois University Carbondale | 7 | 01.1101 | M.S. in Plant, Soil and Agricultural Systems |
| | 7 | 03.0501 | M.S. in Forestry |
| | 7 | 14.0501 | Master of Science & Master of Engineering in Biomedical Engineering |
| | 7 | 14.0899 | Master of Engineering in Civil and Environmental Engineering |
| | 7 | 26.0101 | M.S. in Biological Sciences |
| | 7 | 26.0205 | M.S. in Molecular Biology, Microbiology & Biochemistry |
| | 7 | 26.0301 | M.S. in Plant Biology |
| | 7 | 30.0601 | Professional Science Master's in Advanced Energy and Fuels Management |
| | 7 | 40.0601 | M.A. and M.S. in Geology |
| | 7 | 45.0701 | M.S. in Geography and Environmental Resources |
| | 17 | 03.0103 | Ph.D. in Environmental Resources and Policy |
| | 17 | 03.0201 | PhD in Environmental Resources |
| | 17 | 14.1001 | Ph.D. in Electrical and Computer Engineering |
| | 17 | 26.0205 | Ph.D. in Molecular Biology, Microbiology & Biochemistry |
| | 17 | 26.0301 | Ph.D. in Plant Biology |
| | 59 | 90.0110 | Beef Evaluation Station |
| | 59 | 90.0111 | Center for Excellence for Soybean Research, Teaching an |
| | 59 | 90.0301 | Touch of Nature |
| | 59 | 90.0303 | Fisheries and Illinois Aquaculture Center |
| | 59 | 90.0306 | Cooperative Wildlife Research Laboratory |
| | 59 | 90.2699 | Center for Systematic Biology |
| | | | |
| Southern Illinois University Edwardsville | 5 | 03.0104 | Environmental Sciences |
| | 5 | 13.1316 | B.S. in Earth and Space Science Education |
| | 5 | 26.0101 | B.A. and B.S. in Biological Sciences |
| | 5 | 45.0701 | B.A. and B.S. in Geography |
| | 7 | 03.0104 | M.S. in Environmental Sciences |
| | 7 | 03.0199 | Professional Science Master's (P.S.M.) in Environmental Science Management |
| | 7 | 26.0101 | M.A. and M.S. in Biological Sciences |
| | 7 | 45.0701 | M.S. in Geographical Studies |
| | 59 | 90.1505 | Environmental Resources Training Center |
| | 59 | 90.1506 | National Corn to Ethanol Research Center |

| Institution Name | Level | CIP2K | Program Name |
|-------------------|-------|---------|---|
| U of I at Chicago | 5 | 14.0501 | B.S. in Bioengineering |
| | 5 | 14.1001 | B.S. in Electrical Engineering |
| | 5 | 26.0101 | B.S. in Biological Sciences |
| | 5 | 26.0202 | B.S. in Biochemistry |
| | 5 | 40.0601 | B.S. in Earth and Environmental Sciences |
| | 5 | 50.0404 | B.S. in Industrial Design |
| | 7 | 14.0501 | M.S. in Bioengineering |
| | 7 | 14.1001 | M.S. in Electrical Engineering |
| | 7 | 14.9999 | Master of Energy Engineering |
| | 7 | 26.0101 | M.S. in Biological Sciences |
| | 7 | 26.0210 | M.S. in Biochemistry and Molecular Biology |
| | 7 | 26.0407 | M.S. in Anatomy and Cell Biology |
| | 7 | 26.0508 | M.S. in Microbiology and Immunology |
| | 7 | 26.0901 | M.S. in Physiology and Biophysics |
| | 7 | 26.1002 | M.S. in Biopharmaceutical Sciences |
| | 7 | 26.1103 | M.S. in Bioinformatics |
| | 7 | 26.1201 | M.S. in Medical Biotechnology |
| | 7 | 40.0601 | M.S. in Earth and Environmental Sciences |
| | 7 | 45.0701 | M.A. in Environmental and Urban Geography |
| | 7 | 50.0404 | B.S. in Industrial Design |
| | 7 | 51.2703 | M.S. in Biomedical Visualization |
| | 17 | 14.0501 | Ph.D. in Bioengineering |
| | 17 | 26.0101 | Ph.D. in Biological Sciences |
| | 17 | 26.0407 | Ph.D. in Anatomy and Cell Biology |
| | 17 | 26.0508 | Ph.D. in Microbiology and Immunology |
| | 17 | 26.0901 | Ph.D. in Physiology and Biophysics |
| | 17 | 26.1002 | Ph.D. in Biopharmaceutical Sciences |
| | 17 | 26.1103 | Ph.D. in Bioinformatics |
| | 17 | 26.9999 | Ph.D. in Biochemistry and Molecular Genetics |
| | 17 | 30.0101 | Biological and Physical Sciences |
| | 17 | 40.0601 | Ph.D. in Earth and Environmental Sciences |
| | 17 | 51.2706 | Ph.D. in Biomedical and Health Informatics |
| | 59 | 90.0301 | Institute of Environmental Science and Policy |
| | 59 | 90.0302 | Energy Resources Center |
| | 59 | 90.2602 | Center for Structural Biology |
| | 59 | 90.5105 | Center for Molecular Biology of Oral Diseases |
| | 59 | 90.5112 | Center for Lung & Vascular Biology |
| | 59 | 90.5120 | Center for Biomolecular Sciences |

| Institution Name | Level | CIP2K | Program Name |
|----------------------------|-------|---------|---|
| U of I at Springfield | 5 | 03.0103 | B.A. in Environmental Studies |
| | 5 | 26.0101 | B.S. in Biology |
| | 5 | 26.0202 | B.S. in Biochemistry |
| | 7 | 03.0104 | M.S. in Environmental Sciences |
| | 7 | 26.0101 | M.S. in Biology |
| U of I at Urbana/Champaign | 5 | 01.1102 | B.S. in Crop Sciences |
| | 5 | 03.0104 | B.S. in Natural Resources and Environmental Sciences |
| | 5 | 04.0601 | Bachelor of Landscape Architecture |
| | 5 | 11.0199 | B.S. in Computer Science and Crop Sciences |
| | 5 | 11.0199 | B.S.L.A.S. in Computer Science and Geography and Geographic Information Science |
| | 5 | 14.0301 | B.S. and B.S.Ag. in Agricultural and Biological Engineering |
| | 5 | 14.0501 | B.S. in Bioengineering |
| | 5 | 26.0101 | B.S. in Biology |
| | 5 | 26.0202 | B.S. in Biochemistry |
| | 5 | 26.0406 | B.S.L.A.S. in Molecular and Cellular Biology |
| | 5 | 26.9999 | B.S.L.A.S. in Integrative Biology |
| | 5 | 30.0601 | B.S.L.A.S. in Earth, Society, and Environmental Sustainability |
| | 5 | 40.0601 | B.S. & B.S.L.A.S. in Geology |
| | 5 | 45.0701 | B.A.L.A.S. in Geography and Geographic Information Science |
| | 7 | 01.1102 | M.S. in Crop Sciences |
| | 7 | 03.0104 | M.S. in Natural Resources and Environmental Sciences |
| | 7 | 04.0601 | Master of Landscape Architecture |
| | 7 | 13.1322 | M.S. in the Teaching of Biological Science |
| | 7 | 13.1337 | M.S. in the Teaching of Earth Science |
| | 7 | 14.0301 | M.S. in Agricultural and Biological Engineering |
| | 7 | 14.0501 | M.Eng. in Bioengineering |
| | 7 | 14.0501 | M.S. in Bioengineering |
| | 7 | 14.1401 | M.S. in Environmental Engineering in Civil Engineering |
| | 7 | 26.0101 | M.S. in Biology |
| | 7 | 26.0102 | M.S. in Veterinary Medical Science Comparative Biosciences |
| | 7 | 26.0202 | M.S. in Biochemistry |
| | 7 | 26.0203 | M.S. in Biophysics and Quantitative Biology |
| | 7 | 26.0301 | M.S. in Plant Biology |

| Institution Name | Level | CIP2K | Program Name |
|----------------------------|-------|---------|---|
| U of I at Urbana/Champaign | 7 | 26.0399 | M.S. in Plant Biotechnology |
| | 7 | 26.0401 | M.S. in Cell and Developmental Biology |
| | 7 | 26.0502 | M.S. in Microbiology |
| | 7 | 26.1103 | M.S. in Bioinformatics |
| | 7 | 26.1201 | M.S. in Bioprocessing and Bioenergy |
| | 7 | 26.1310 | M.S. in Ecology, Evolution and Conservation Biology |
| | 7 | 30.3301 | M.S. in Sustainable Urban Management |
| | 7 | 40.0601 | M.S. in Geology |
| | 7 | 45.0701 | M.A. in Geography |
| | 7 | 45.0702 | M.S. in Geography |
| | 7 | 51.2505 | M.S. in Veterinary Medical Science Pathobiology |
| | 17 | 01.1102 | Ph.D. in Crop Sciences |
| | 17 | 03.0104 | Ph.D. in Natural Resources and Environmental Sciences |
| | 17 | 04.0601 | Ph.D. in Landscape Architecture |
| | 17 | 14.0301 | Ph.D. in Agricultural and Biological Engineering |
| | 17 | 14.0501 | Ph.D. in Bioengineering |
| | 17 | 14.1001 | Ph.D. in Electrical and Computer Engineering |
| | 17 | 14.1401 | Ph.D. in Environmental Engineering in Civil Engineering |
| | 17 | 26.0101 | Ph.D. in Biology |
| | 17 | 26.0102 | Ph.D. in Comparative Biomedical Sciences |
| | 17 | 26.0202 | Ph.D. in Biochemistry |
| | 17 | 26.0203 | Ph.D. in Biophysics and Quantitative Biology |
| | 17 | 26.0301 | Ph.D. in Plant Biology |
| | 17 | 26.0401 | Ph.D. in Cell and Developmental Biology |
| | 17 | 26.0502 | Ph.D. in Microbiology |
| | 17 | 26.1310 | Ph.D. in Ecology, Evolution and Conservation Biology |
| | 17 | 40.0601 | Ph.D. in Geology |
| | 17 | 45.0701 | Ph.D. in Geography |
| | 59 | 90.0101 | TIAA-CREF Center for Farmland Research |
| | 59 | 90.0301 | Institute for Sustainability, Energy, and Environment |
| | 59 | 90.2602 | Center for Biophysics and Quantitative Biology |
| | 59 | 90.2608 | Carl R. Woese Institute for Genomic Biology |
| | 59 | 90.2612 | Biotechnology Center |
| | 59 | 90.3018 | Institute for Universal Biology (IUB) |

| Institution Name | Level | CIP2K | Program Name |
|-----------------------------|-------|---------|--|
| Western Illinois University | 5 | 01.0000 | B.S. in Agriculture |
| Western Illinois University | 5 | 26.0101 | B.S. in Biology |
| Western Illinois University | 5 | 40.0601 | B.S. in Geology |
| Western Illinois University | 5 | 45.0701 | B.S. in Geographic Information Science |
| Western Illinois University | 7 | 26.0101 | M.S. in Biology |
| Western Illinois University | 7 | 26.0101 | Master of Science (M.S.) in Biology |
| Western Illinois University | 7 | 45.0701 | M.A. in Geography |
| Western Illinois University | 17 | 03.0104 | Environmental Science |
| Western Illinois University | 59 | 90.0301 | Institute for Environmental Studies |

***Note: All Centers and degree programs are in active status as of June 2017 unless indicated otherwise.**

Chicago State University

Chicago State University Sustainability Initiatives

Global Institute of Sustainable Development

The Global Institute of Sustainable Development, GISD, is an innovative approach to furthering the global citizenship mission of Chicago State University with particular interest in utilizing sustainability principles to stimulate university/community partnership for cross-cultural education, faculty-student interaction in research, service, and community development. More information can be found at: <http://www.csu.edu/internationalstudies/globalinstitute/>

Aquaponics Facility

In the summer of 2010, Chicago State University opened the Aquaponics Facility. The project consists of raising tilapia fish in a controlled, continuously circulating water system. The effluent of the fish holding tanks are circulated through growbeds, providing nourishment where plants will be grown hydroponically. This integrative process between aquaculture and hydroponics is known as aquaponics. More information can be found at: <http://www.csu.edu/bioprehealth/facilities/aquaponics.htm>

CSU Prairie Garden

Started in 2003 with a grant from the Illinois Department of Natural Resources (IDNR), the Prairie Garden is populated with species native to Illinois grasslands. The garden allows students to conduct research and also serves as a platform for instruction in how to teach biology. More information can be found at: <http://www.csu.edu/bioprehealth/facilities/prairiegarden.htm>

CSU Go Green Recycling Program

Chicago State University has a campus-wide recycling program that collects paper, cardboard, bottles, and cans for recycling. Recycling bins are available in all campus buildings. There is also a central location for collecting used batteries. More information about “green” facilities initiatives can be found at: <http://www.csu.edu/PFPM/ehs.htm>

Eastern Illinois University

Graduate programs that would qualify as green: <http://www.eiu.edu/sustainable/>

MS in Sustainable Energy (Approved by IBHE Board: 12/4/12)

Dual MS in Sustainable Energy and Technology

Dual MS in Sustainable Energy and MBA

Dual MS in Sustainable Energy and MS in Geographic Information Sciences

We also have an Undergraduate Minor in Environmental Sustainability and a Concentration in Alternative Energy and Sustainability. <http://castle.eiu.edu/energy/undergraduate.php>

We have created the Center for Clean Energy Research and Education (CENCERE), which is committed to the development of clean, sustainable energy sources. CENCERE partners with a cross-disciplinary team engaged in catalyzing new initiatives in energy research and education.

More information about the center can be found here <http://castle.eiu.edu/energy/>. (4/12/11)

Campus green initiatives include having a Renewable Energy Center that can produce energy using biomass, water conservation and recycling programs.

We have received the following awards for our campus efforts

Tree Campus USA 2010, 2011, 2012 — National Arbor Day Foundation and Toyota (2011)

Outstanding College and University Recycling Program award from the Illinois Recycling Association (2009)

U.S. Environmental Protection Agency's College/University Partner of the Year award (one of 10) for comprehensive waste reduction program (2006)

ASHRAE Regional Technology Award, First Place for Institutional Buildings - Existing, Region VI, (2002-2003)

Efficient Building Awards from the Department of Commerce and Economic Opportunity State Building Energy Program (1997, 1999, 2002)

Information about campus initiatives: <http://www.eiu.edu/sustainability/index.php>

Renewable Energy Center: http://www.eiu.edu/sustainability/eiu_renewable.php

Governors State University “Green” Jobs Report

http://www.govst.edu/About/Offices_and_Departments/Institutional_Research_and_Effectiveness/Public_Act_97-241/

Governors State University has a deep commitment toward preparing our students, traditionally underserved and marginalized in public higher education, for the jobs of tomorrow in a global economy while contributing to the ongoing stewardship of the environment at an affordable tuition rate. That commitment is not just in our degree programs and course offerings, but modeled in the efforts of the students, faculty, and staff of Governors State University to look for sustainable and environmental solutions and programming that creates and promotes “Green” Jobs and in the long-term saves money for the university and the state of Illinois.

Degree Offerings

In the fall of 2014, Governors State University admitted its first class of first-year students to take lower-division coursework. These new students elect to join one of three thematic groups which will form a learning community and cohort throughout their lower-division studies. Students within the cohort will take up to 13 credit hours together each term (in addition to three independent hours in areas of their choice). The three cohorts are: Civic Engagement, Global Citizenship, and Sustainability, and the program is designed to offer dedicated programming, coursework, and collaboration on these critical issues, preparing students for dedicated study in their upper-division degree program starting at the end of their second year of collegiate study.

At the undergraduate level in upper-division study, the [bachelor’s degree program in Biology](#) prepares students with the latest technology and teaching methods for careers in the life sciences as well as the field of environmental science and sustainability. Students earning bachelor’s degrees and non-degree-seeking students can earn a [certificate in Biotechnology and Bio-Analysis](#). These degree programs are available to direct-entry and transfer-entry students, including those through our nationally-recognized Dual Degree Program which provides a pipeline for students from study at the community college to “Green” and sustainable jobs after completion of a bachelor’s degree.

At the master’s degree level a [Master of Science degree in Environmental Biology](#) preparing students for work as professional biologists with a strong environmental emphasis. Governors State University is uniquely located where urban and rural areas meet, allowing students to explore a diverse range of complex environments. Internships are available with the U.S. Fish and Wildlife Services, U.S. Environmental Protection Agency, Illinois Department of Natural Resources, Forest Preserve District of Will County, Indiana Dunes National Lakeshore, Brookfield Zoo, and the Argonne National Laboratory, among many other locations.

Coursework available to degree-seeking students and those who are not seeking a degree plan but wish to augment their existing knowledge and skills to be better prepared for employment in “Green” industries is listed below. More information on courses and programs can be found in the [university catalog](#).

ANTH-1100 (Cultural Anthropology)
ANTH-4100 (Urban Anthropology)
ANTH-4610 (Ethnographic Research Methods)
ANSO-3099 (Junior Seminar in Anthropology and Sociology)
ANSO-3300 (Ecology, Environment, and Culture)
ANSO-4300 (Food, Culture, and Society)
BIOL-1200/1201 (Environmental Biology, Lecture/Laboratory)
BIOL-2104/2109 (Biological Science Foundations II, Lecture/Laboratory)
BIOL-3118 (Environmental Studies: A Case Studies Approach)
BIOL-3322/3323 (Ecology, Lecture/Laboratory)
BIOL-4140/4141/4142/4143/4144/4145/4146/4147/4148/4149/4150 (Natural History Topics in Biology)
BIOL-6101/6102/6103/6104/6105/6106/6107 (Environmental Science Topics)
BIOL-6516 (Topics in Ecology)
CHEM-5145/5146 (Environmental Chemistry, Lecture/Laboratory)
ENGL-4483 (Literature of the Environment)
PADM-8400 (Seminar in Public and Strategic Planning)
SOC-1100 (Introduction to Sociology)
SOC-3200 (Social Inequalities)
SOC-3500 (Population Studies)
SOC-4400 (Social Movements)

Modeling Sustainability and Environmental Advocacy as a University

In addition to our degree offerings, Governors State University offers programming based around environmental issues, takes efforts to protect the local and global environment through good stewardship of our planet, and looks for efficiencies through sustainable practice. More information on university sustainability measures can be found below and at our [university sustainability website](#).

Large-scale programming on campus

- GSU is a signatory to the America College and University Presidents Climate Commitment, showcasing our promise toward reducing our carbon footprint.
- GSU employs a full-time Environmental Health and Safety officer.
- Annual participation as a campus in Earth Week celebrations.

- Partner with local corporations and cities (e.g., City of Chicago Heights; Solvay, University Park; NuFarm, Chicago Heights) for litter clean-up on Earth Day.
- Campus Clean-up of the Thorn Creek watershed.
- GSU's Sustainable Garden in which faculty, staff, and students rent a lot for gardening.
- Vet Tech in which small appliances are repaired by Veterans who receive training. The appliances are then reused or recycled.
- Hydration stations across campus, energy-efficient lighting with vacancy/occupancy controls, multiple scene light controls in classrooms for reduced lighting levels, night light control system to monitor and control current fixtures and future installations.
- DDC controls for local AHU and HVAC systems.

Campus sustainability practices

- Use of bio-solids on university-owned farm land. ☑ Use of beet juice instead of road salt in the winter to combat ice on all paved surfaces and sidewalks.
- Make use of a 64 panel solar-thermal system, offsetting the cost of hot water heating for its shower rooms and 168,000 gallon swimming pool, and displacing approximately 40 therms of natural gas daily.
- Recycling lamps and batteries which eliminates more than 150 CFL lamps, 160 HID lamps, 230 Non-PCB Ballast, 120 2' Linear lamps, 180 3' Linear lamps, 1,000 4' Linear lamps, and 1,200 alkaline batteries.

Campus environmental stewardship practices

- Recycling is available in every department and classroom. ☑ Use of bio-friendly cleaning products throughout the university by the Housekeeping Department.
- Large-scale organic farming on university-owned farm land and the use of a Conservation Agriculture plan.
- Installation of permeable pavers in the parking lot to promote effective drainage.
- Installation of bio-swales.
- Roller-brushing snow off surfaces to limit use of melting products.

Energy Performance Contract highlights

- Campus energy audit
- Implementing Energy Conservation Measures (ECMs) across campus ☑ Heating, Cooling, Air Handling controls
- Lighting and motion sensors to limit unnecessary lighting
- Reduce greenhouse gas emissions by 3,000 metric tons annually ☑ Generate annual guaranteed energy savings

Illinois State University

Green IT Degree Offerings

Technology plays an intricate role throughout societies and industries. To meet the needs of society and employers Illinois State offers a range of degree programs that encompass technology to advance the capacity of ‘green’ industry, research and community efforts.

Beginning in the fall of 2017 Illinois State will begin offering the first Cybersecurity Major in the state of Illinois. The major includes courses on defensive security, offensive security, and a combination of security incident and event management with forensics. Security of energy and natural resources is a high priority as the systems that manage these resources are high value targets for cyber attacks.

Majors (Undergraduate)

[Biological Sciences](#)

[Cybersecurity](#)

[Environmental Health](#)

[Geography](#)

[Geology](#)

[Recreation & Park Administration - Therapeutic Recreation](#)

[Renewable Energy](#)

[Social Work](#)

[Sociology](#)

Minors (Undergraduate)

[Business Environment & Sustainability](#)

[Civic Engagement and Responsibility](#)

[Environmental Health](#)

[Environmental Studies](#)

Urban Studies

Masters (Graduate)

Applied Community and Economic Development

Conservation Biology

Political Science - Global Politics and Culture

Centers & Institutes

Center for Renewable Energy

Institute for Geospatial Analysis and Mapping (GeoMap)

Stevenson Center for Community and Economic Development

Center for Mathematics, Science and Technology

Graduate Certificates

Certificates provide students with focused studies and exposure to the very latest topics and trends in the IT industry.

- Enterprise Computing Systems Graduate Certificate
- Geographic Information Systems (GIS) Graduate Certificate Certificates are offered in specialized disciplines for Anthropology, Hydrogeology and Biology.
- Information Assurance and Security Graduate Certificate
- Internet Application Development Graduate Certificate
- Networking and Telecommunications Management Graduate Certificate
- Systems Analyst Graduate Certificate

Green Technology Efforts at Illinois State University

eRefurbishment (<http://at.illinoisstate.edu/eRecycling>)

The goal of the eRefurbishment program is to repurpose and reuse equipment rather than sending it to a landfill. eRefurbishment ensures all data has been erased from computers and all other electronic devices that may have data on them, then refurbishes the systems and offers them back to the campus at no cost.

Each piece of equipment is cleaned, the drives are wiped, and a series of diagnostic tests occur in order to deliver a dependable machine. This process is designed to guarantee the system is functional and that University data is protected.

This service is open to any State of Illinois agency. Department of Corrections, Illinois State Police and other state institutions of higher educations have utilized this service.

Totals for 2013 thru June 2017 are as follows

| | |
|------------------------------------|---------------|
| Desktops recovered and reissued = | 676 |
| Notebooks recovered and reissued = | 456 |
| Monitors recovered and reissued = | 485 |
| Mac's recovered and reissued = | 138 |
| | |
| Dollars saved by the university = | \$1,568,257 |
| | |
| Weight saved from being discarded | 22,376.8 lbs. |

Energy Conservation

Mitigation of energy consumption has been accomplished through virtual server environments, upgrading data centers, establishing disaster recovery sites, consolidating enterprise services and creating collaborative work spaces.

Building and energy systems are highly automated to ensure the most efficient operation of mechanical systems. Additionally devices such as photovoltaic and occupancy sensors provide an effective method of mitigating energy loss in classrooms, parking decks, and other built areas of campus.

Renewable Energy

A [demonstration hybrid 1 kW wind / 1 kW solar](#) grid-tie capable renewable energy system has been installed at the [Horticulture Center](#) on Raab Rd. The system serves as a research and educational tool for students in the Renewable Energy major. Two additional photovoltaic panels have been installed on top of the technology lab of Turner Hall, with live metering data fed into the lab.

Research Partnerships on Renewable Energy

Illinois State University was one of four institutions to partner on a Department of Energy funded research program on the feasibility of implementation of renewable systems on college campuses.

Technology & Global Climate Change Research

Illinois State University faculty and students are utilizing an advanced buoy system (only the second in the world to be deployed) to provide fishermen with near real-time information about lake conditions, and the high-frequency data will help develop a model that can be used to predict impacts of climate change into the future.

Northeastern Illinois University: Efforts to Promote the Green Technologies Industry 2016-2017

<https://www.neiu.edu/about/northeastern-voices/northeastern-turning-every-day-earth-day>

DEGREES AND CERTIFICATES

UNDERGRADUATE PROGRAMS:

- B.S. Biology
- B.S. Earth Science
- B.S. Environmental Science
- B.A. Environmental Studies
- B.A. Geography
- Undergraduate Certificate Geographic Information Science (GIS)
- Minor in Environmental Studies
- Minor in Geographic Information Science (GIS)
- Minor in Geography
- Minor in Earth Science

GRADUATE PROGRAMS:

- M.S. Biology
- M.A. in Geography and Environmental Studies
- Graduate Certificate in Geographic Information Science (GIS)

ACADEMIC PROGRAMS AND CURRICULUM

BIOLOGY PROGRAM: The Biology Program includes course offerings at the undergraduate and graduate level that deal with conservation and ecology.

SELECTED COURSES IN BIOLOGY:

- BIO-305. WIP: General Ecology
- BIO-453. Conservation Biology
- BIO-455. Restoration Ecology

EARTH SCIENCE PROGRAM: The Earth Science Program includes course offerings at the General Education and undergraduate level that emphasize the study of geologic processes, oceanography and meteorology.

SELECTED COURSES IN EARTH SCIENCE:

ESCI-109W: First Year Experience: Chicago's Muddy Waters-Environmental Geology
ESCI-123: Environmental Geology
ESCI-207: Global Climate and Weather
ESCI-327: Aqueous Environmental Geochemistry
ESCI-341: Environmental Hydrology

ENVIRONMENTAL SCIENCE PROGRAM: The interdisciplinary Environmental Science program includes coursework in biology, chemistry, earth science, environmental studies, geography, math and physics.

SELECTED COURSES IN ENVIRONMENTAL SCIENCE:

ENVI-101. Introduction to Environmental Science
ENVI-301. Field Methods in Environmental Science
ENVI-390. Environmental Science Research and Practice
ESCI-207. Global Climate and Weather

GEOGRAPHY AND ENVIRONMENTAL STUDIES PROGRAM: The structure and focus of the Geography and Environmental Studies program has been addressing sustainability issues since 1965. The undergraduate Environmental Studies program has two focus areas: environmental policy and planning, and environmental education and interpretation. The graduate program combines geographic and environmental studies approaches to the understanding of human-environment interactions.

SELECTED COURSES IN GEOGRAPHY AND ENVIRONMENTAL STUDIES:

GES-109B. First Year Experience: Chicago Geographies: Environmental Chicago
GES-150. Introduction to Environmental Studies
GES-218. Conservation of Natural Resources
GES-220. Pollution Control and Prevention
GES-301. Great Lakes Environmental Management
GES-305. Geography and Map Skills for Teachers
GES-307. Environmental Education Seminar
GES-308. Conservation Psychology
GES-309. Principles and Methods of Environmental Interpretation
GES-311. Social Dimensions of Water Resources Management
GES-319. Environmental and Natural Resources Policy
GES-321. Environmental Impact Assessment
GES-323. Green Infrastructure Planning and Management
GES-327. Forest Resource Management
GES-328. Wildlife Resource Management
GES-329. Sustainable Energy Policy
GES-336. Solid Waste Issues
GES-338. Sustainable Development
GES-339. Geography of Energy
GES-344. Chicago River Issues

GES-349. Environment and Urbanization
GES-359. Environmental Planning
GES-360. Environmental Justice and Activism
GES-368. Changing Global Climates
GES-380. Field Methods
GES-416. GIS for Natural Systems Management
GES-437. Seminar: Global Wildlife Issues
GES-445. Seminar in Resource Management and Decision-Making
GES-449. Seminar in Land Use Controls
GES-453. Seminar in Sustainable Development
GES-454. Seminar: Population and Environment
GES-455. Seminar in Environmental Planning
GES-456. Seminar in U.S. Environmental Policy
GES-457. Seminar: International Environmental Policy
GES-462. Seminar in Environmental Education

UNIVERSITY INITIATIVES AND HIGHLIGHTS

Arbor Day 2017 Celebration: On April 25, the University celebrated Arbor Day with the theme of “May the Forest Be With You.” Attendees could visit four stations: a forester-guided campus tree tour, photos with Star Wars-related props and trees, nature-based yoga sessions in the quad, and oak sapling giveaway/tree planting education. The tree giveaway was made possible by a partnership with the Metropolitan Water Reclamation District of Greater Chicago.

DIVVY Partnership and Ridesharing: Chicago’s Divvy bike-sharing service installed a docking station adjacent to the University’s Main Campus. The docking station location was determined, in part, by an initiative where students could recommend their preferred locations. Northeastern students can receive a discounted Student Annual Membership to DIVVY, giving them access to thousands of bikes at hundreds of stations across Chicago.

Green Business Conference 2017: The Green Conservative Group’s (GCG) annual Green Business Conference, held April 4, provided an opportunity to network and increase students’ and the Northeastern community’s knowledge and understanding of today’s progress towards a sustainable world. The GCG partnered with student organizers of the annual International Business Conference. In collaboration with the NEIU Alumni All Access series, GCG brought author, producer and broadcaster John St. Augustine, and broadcaster Bill Kurtis, to deliver the keynote address.

Green Conservation Group (GCG): This student organization promotes environmental responsibility at Northeastern through education and community involvement. All are welcome to participate in their activities to promote sustainability and common-sense environmental practices. Their activities include

workshops, film festivals, Earth Day events and social activities off-campus, such as visiting special museum exhibits, gardens, etc.

Green Fee Committee: In 2007, the Green Cycle Group (a student environmental club on campus at the time) initiated the idea of a student "green fee" that would be used to promote campus sustainability initiatives. Green initiatives were becoming more popular across campuses all over the country, and a few universities had similar student-approved fees to help pay for such projects. The proposal was presented to and endorsed by the Student Government Association. Then, the green fee was approved during a referendum of the student body. Finally, it was approved by the Northeastern Illinois University Board of Trustees, and the \$3-per-semester-green-fee was implemented in Fall 2007. A sample of the accomplishments of the Green Fee Committee includes:

Bike Racks: By adding more bike racks on the main campus, the University increases the potential for bicycle commuting to ease driving and traffic congestion.

Bike Repair Station: A covered bike repair station offers students, faculty, and staff a safe way to repair bicycles on campus.

Bird-Safe Windows: A new bird-safe initiative replaced outdated materials with clear decals to deter bird collisions with windows in breezeways on the main campus.

Demonstration Rain Barrel: A rain collection system was approved for installation near the library to be used to water the president's garden.

Electric Maintenance Vehicle: Replacing a pickup truck, this battery-powered vehicle, which is primarily used by Facilities Management, cuts down on greenhouse emissions and noise pollution.

Electric Vehicle Charging Stations: Helping El Centro in its bid to obtain LEED certification, three electric vehicle-charging stations at that location promote the adoption of pollution-free electric cars.

Energy-Saving Led Lights and Motion Sensors: Efficient bulbs and sensors that switch off lighting when not in use save electricity and the need for maintenance with longer-lasting bulbs.

Leaf Composting Program: A pilot leaf composting program was approved that will be implemented starting summer and fall as an additional agreement with the waste hauler to collect leaf litter and yard waste for off-campus composting purposes.

Marker Recycling Program: A pilot marker collection and recycling program was approved for classrooms with heavy whiteboard marker use.

Planting of Trees and Greenery: Native trees and plants benefit local wildlife as well as cut down on air pollution, recharge ground water and reduce runoff that contributes to water pollution and

flooding. These aesthetic improvements also contribute to biodiversity. Improvements take place in many areas of the main campus and most recently on Northeastern's Jacob H. Carruthers Center for Inner City Studies location.

Recycling Bins: These receptacles, located throughout the University, are some of the most visible displays of sustainability. They encourage the community to think about waste disposal and how it contributes to growing landfills.

Solar PV Panels: Introduced by President Sharon Hahs on Earth Day 2012, these photovoltaic panels on Building B convert the sun's energy into electricity and reduce Northeastern's reliance on polluting energy sources. A TV monitor in a highly trafficked part of the building shows visitors its real-time and cumulative power savings.

Solar Water Heating System: Solar panels were installed in 2013 atop the Physical Education Building to heat its swimming pool, allowing Northeastern to reduce its dependence on fossil fuels and reduce its natural gas bills.

Water Bottle Filling Stations: New water fountains with bottle-filling stations that dispense filtered water have been installed around the University since 2013 to reduce plastic bottle waste as well as energy and resource consumption.

Maintenance of On-Campus Prairies, Savanna, and Natural Areas: The Departments of Biology and Geography & Environmental Studies along with Facilities Management maintain small grassland prairies and Swamp White Oak savanna on NEIU's campus with periodic controlled burns, planting, and invasive species control for educational, historic, and aesthetic purposes. A recent partnership was created with the Conservation Foundation to implement the management of focus areas on campus in order to control invasive species, increase native trees and plants, and create visually appealing natural areas on campus.

Tree Campus USA: In February 2016, the Arbor Day Foundation designated the University as a "Tree Campus USA" in recognition of excellence in campus tree management and student and community involvement. Being awarded this designation was a team effort, with collaboration between the Departments of Geography and Environmental Studies, Biology and Facilities Management, and the Division of Student Affairs. The Geography and Environmental Studies program maintains a Geographic Information Systems map of all the trees and shrubs on campus since 1997.

Northern Illinois University

Northern Illinois University offers the following undergraduate academic options that promote green technologies and align with green jobs programs (<http://www.niu.edu/sustainability/academics/index.shtml>).

Academic Degrees:

Environmental Studies - The Environmental Studies (ENVS) offers six different emphases:

- Biodiversity & Restoration (BS)
- Energy Studies (BS)
- Nature in Society (BA/BS)
- Environmental Policy (BA/BS)
- Water Science (BS)
- Educator Licensure-Environmental Science (BA/BS)

Biological Science- Biological Sciences offers a track on Biodiversity: Ecology, Evolution, and Conservation (BS).

Community Leadership and Civil Engagement –Center for Nonprofit and NGO Studies (NNGO) offers an environmental emphasis (BS).

Geology and Environmental Geosciences–Geology offers an Environmental Geosciences (BS) emphasis at the undergraduate level and MS and PhD at the graduate level

Geography - Geography major with a study area in Natural Environmental Systems (BS) at the undergraduate level with a MS and PhD at the graduate level

Health Studies –College of Environment and Health (BS)

Technology - There are options in the technology field relating to environmental problems by choosing Energy and Environmental Technology (BS)

Engineering- Mechanical Engineering emphasis in Sustainable Energy (BS)

Minors

Environmental Studies allows students to “Green” any major on campus.

Sustainable Engineering through Industrial and Systems Engineering integrates social, environmental, and economic considerations in production.

Social Entrepreneurship through Management builds and sustains environmental ventures.

General Education Pathway

Sustainability. General Education pathway that focuses on environment.

Certificate

Sustainable Food System- A stand-alone certificate focuses on local food system

Green and Sustainable Initiatives

NIU launched a website that highlights Environmental Sustainability across the whole campus - <http://www.niu.edu/sustainability/index.shtml> Some of the highlights across campus can be found the following pages:

- Institute for the Study of Environment, Sustainability, and Energy: <http://www.niu.edu/ese/>
- Campus Dining: <http://niu.edu/dining/about/sustainability/index.shtml>
- NIU Green Team: <http://www.niu.edu/sustainability/about/green-team.shtml>
- Student Association Director of Environmental Affairs: <http://niu.edu/student-association/about/leadership.shtml>
- Achievements: <http://www.niu.edu/sustainability/about/achievements.shtml>
- History of Sustainability: <http://www.niu.edu/sustainability/about/history.shtml>
- Student Organizations: <http://www.niu.edu/sustainability/get-involved/organizations.shtml>
- Sustainability Plan development underway:
<http://www.niu.edu/sustainability/about/plan.shtml>
- Regular events: NIU Earth Week (<http://www.niutoday.info/2017/04/11/gogreenniu-celebrates-earth-week/>)
- Communiversity Gardens: <http://www.niu.edu/communiversitygardens/index.shtml>
- Biological Sciences Greenhouse: <http://niu.edu/biology/campus-experiences/facilities/greenhouse.shtml>
- Partner with Goodwill Industries of Northern Illinois each semester to divert gently used items from the landfill as student move out of the residence halls.
- Map of green initiatives:
<http://www.myatlas.com/map/index.php?id=249#!ce/10311?ct/10312,10381,21395,21397,21403,10311>

Southern Illinois University Carbondale

Sustainability at SIUC: <http://sustainability.siu.edu/>

“Green Programs” and Sustainability Initiatives

Majors

Agribusiness Economics
Agricultural Systems and Education
Crop, Soil and Environmental Managements
Environmental Studies
Geography and Environmental Resources
Urban Forest Management – Forestry

Minors or specializations

Sustainability – minor
Environmental Sustainability Specialization
Environmental Chemistry Specialization
Environmental Engineering Specialization
Energy and Environmental Policy

Courses

UCOL 101G 1-3: Foundations of Inquiry Campus Sustainability: SIU Environmental Activities
GEOG 100-3 Environmental Conservation
GEOG 303I – 3 Physical Geography
GEOG 320-3 Introduction to Environmental Sustainability
GEOG 421-3 Urban Sustainability
GEOG 424-3 Sustainable Development
GEOG 470-3 Continuing Issues in Environmental Studies
ANTH 207-3 Sustainability
ARC 481-3 Environmental Design II: Energy and Systems
CSEM 347-3 Urban Soils
CSEM 370-3 Agroecology Sustainable Agricultural Systems
FOR 201-3 Ecology of North American Forests
FOR 285-3 Social Influences on Forestry
FOR 331-3 Forest Ecosystems
AUT 430-1 Automotive Investigations
AUT 480-3 Alternative Fueled Vehicles
HORT 462-3 Sustainable Landscape Practice
HORT 463-3 Plants in Ecological Landscape
HORT 480-3 Designing Outdoor Spaces
TRM 440-3 Technology and Management of Sustainable Enterprises
PLB 301I-3 Environmental Issues
ZOO 312I-3 Conservation of Natural Resources

ENGR 301-3 Humans and Their Environment
ENGR 303-3 The Role of Energy in Society
ABE 405-3 Management of Ethanol Production Facilities
ABE 440-3 Natural and Environmental Resources Economics and Policy 5

SIU-C has approved a new Energy Engineering Specialization in mechanical engineering this past year.

Initiatives

In 1999, Southern Illinois University broke ground in sustainability, becoming the first institution of higher education in Illinois to sign the Talloires Declaration. SIU committed to mobilize its resources in order to address the problems and reverse the trends of environmental degradation.

In May 2009, the SIU Board of Trustees unanimously passed the \$10 per semester student Green Fee “to provide a regularized source of funding for on-campus renewable energy, energy efficiency, and sustainability projects and research.” This fee was passed after overwhelming approval by 73% of the students who voted in a campus wide referendum in the first student-led fee increase in SIU history. The Sustainability Council, along with the Green Fund Committee, was formed to make campus-wide recommendations concerning sustainability and allocate Green Fund revenue (generated by the Green Fee). Since then, the Committee has awarded over \$1.6 million for on-campus research and projects involving renewable energy, energy efficiency, and sustainability.

SIUC’s Vermicomposting Facility - creates compost from campus dining food waste and a recent expansion involved building an aerated static pile (ASP) facility that will greatly increase the university’s composting capacity.

The Agriculture Building boasts a green roof, a living wall and a rain garden that also offer excellent hands-on learning opportunities for students.

SIUC also hosts a Center for Sustainable Farming.

SIU Carbondale also has a diverse assortment of initiatives that include: bike repair stations, recycling and hydration stations, sustainable vegetable gardens, composting commodes, energy-efficient lighting, and a hydroponic workshop.

Southern Illinois University Edwardsville

Homepage- <https://www.siu.edu/sustainability/>

Housing- <https://www.siu.edu/housing/about/sustainability.shtml>

Department of Environmental Sciences-
<https://www.siu.edu/artsandsciences/environment/>

Department of Geography-
<https://www.siu.edu/artsandsciences/geography/sustainability.shtml>

University of Illinois at Chicago

Sustainability at UIC: <https://sustainability.uic.edu/>

Summer Institute on Sustainability and Energy: <https://uicsise.com/>

Sustainability Internship Program: <http://sustainability.uic.edu/student-experience/sustainability-internship-programs/>

The Voorhees Center: <http://voorheescenter.uic.edu/what-we-do/areas-of-research/economic-development/>

University of Illinois at Springfield

Sustainability at UIS: <https://www.uis.edu/sustainability/>

University of Illinois at Urbana/Champaign

Institute for Sustainability, Energy, and Environment:
<http://sustainability.illinois.edu/>

Student Sustainability Committee: <http://ssc.sustainability.illinois.edu/>

Illinois Sustainable Technology Center: http://www.istc.illinois.edu/info/govs_awards.cfm

Western Illinois University

Sustainability at WIU:

www.wiu.edu/vpas/sustainability

<http://www.wiu.edu/vpas/sustainability/education.php>

Sustainable WIU Pledge:

http://www.wiu.edu/student_services/university_union/sustainability/

CIP

| Code | Program |
|---------|--|
| 01.0000 | B.S., Agriculture |
| 26.0101 | B.S., Biology, Option in Environmental Biology |
| 03.0104 | Ph.D., Environmental Science: Large River Ecosystems |
| 45.0701 | B.S., Geography and Geographic Information Science |
| 45.0701 | M.A., Geography |
| 45.0701 | Post-Baccalaureate Certificate, Geographic Information Systems (GIS) Analysis |
| 40.0701 | B.S., Geology |
| 30.0000 | B.S., Interdisciplinary Studies: Renewable Energy and Biofuels Technology |
| 30.0000 | B.S., Interdisciplinary Studies: Renewable Energy and Wind Technology |
| 30.0000 | B.S., Interdisciplinary Studies: Renewable Energy Policy, Planning, and Management |
| 40.0404 | B.S., Meteorology |
| 24.0101 | BLAS, Emphasis in Environmental Studies |
| 90.0301 | Institute of Environmental Studies |
| | Undergraduate minor in Geographic Information Systems (Geography) |
| | Undergraduate Interdisciplinary minor in Environmental Studies |
| | Undergraduate minor in Natural Resources Conservation (Agriculture) |
| | Undergraduate minor in Weather and Climate (Geography) |