



College Connections **CICU**

THINKING GREEN: ENVIRONMENTAL STUDIES

Students interested in environmental sciences have a number of colleges and programs of study available to them at the 100+ independent colleges and universities in New York. It's easy to discover which colleges offer a bachelor's degree program, minor, or major area of concentration in environmental sciences and related areas. Search a database containing hundreds of academic programs on New York's private (independent) colleges and universities' admissions and financial aid Web site, www.nycolleges.org.

At the www.nycolleges.org home page, click on "Academic Programs" and follow directions to select the degree level (Associate or Bachelor's), the area of study you're interested in, and finally from the list of the programs of study offered, the specific program. A list of colleges and universities that offer that program as either a major, minor or area of concentration will appear at the bottom of the screen. Click on one of the colleges to go to its campus profile and a link to the college's Web site.

For programs of study related to environmental affairs or environmental sciences you have many choices depending on your preferred focus of study. At right are some areas of study and the more specific programs you might wish to explore.

Area of Study	Program of Study
Agriculture/Animals/Environmental Technologies <i>Agriculture, animals and plant sciences: environmental science relating to agriculture, or conservation.</i>	<ul style="list-style-type: none"> • Agricultural Economics/Agricultural Business/Agricultural Resource Economics • Agriculture, General/Food Sciences • Environmental Sciences/Technologies • Forestry • International Agriculture • Plant Sciences/Soil, Crop and Atmospheric Sciences
Architecture/Environmental Design <i>Planning, designing, constructing or managing the construction of buildings, rooms, parks, or cities.</i>	<ul style="list-style-type: none"> • Environmental/Architectural Design
Biological Studies <i>Learning about living organisms.</i>	<ul style="list-style-type: none"> • Environmental Studies/Environmental Sciences/Environmental Biology/Natural Systems
Engineering <i>Designing, producing, and operating systems.</i>	<ul style="list-style-type: none"> • Environmental Engineering
Interdisciplinary/Individualized Studies <i>Unique, self-directed and multi-discipline programs.</i>	<ul style="list-style-type: none"> • Environmental Science – Interdisciplinary Study
Physical Sciences/Chemistry/Physics <i>Learning about matter, energy, and nature.</i>	<ul style="list-style-type: none"> • Atmospheric Sciences/Meteorology/Oceanography • Earth Science/Resources/Natural Science • Environmental Science/Studies
Social Sciences <i>Focusing on human conduct and interactions.</i>	<ul style="list-style-type: none"> • Environmental Studies

RESOURCES: GRANTS AND SCHOLARSHIPS

American Meteorological Society (AMS)
www.ametsoc.org/amsstudentinfo/scholfeldocs/index.html

The AMS offers scholarships of \$5,000 (\$2,500 per year for the first two years) to entering college freshmen pursuing a degree in atmospheric, oceanic, or hydrological sciences. The AMS/Industry Minority scholarship is open to Latino, African-American, and Native American students.

American Nuclear Society (ANS)

www.ans.org/honors/scholarships/
The ANS offers a number of scholarships, including the \$1,000 Incoming Freshman Scholarship for students pursuing degrees in nuclear engineering; scholarships for college sophomores; scholarships for college students majoring in nuclear science or a related field.

Annie's Sustainable Agriculture Scholarships

www.annies.com/sustainable-agriculture-scholarship
Scholarships of \$2,500 and \$10,000 are awarded to outstanding undergraduate and graduate students who are pursuing degrees related to food and agriculture.

AXA Achievement Scholarship

www.axa-equitable.com/axa-foundation/AXA-achievement-scholarship.html
A one-time award of \$10,000 for students who have the ability to succeed in college and have been active and involved in their communities.

Boy Scouts of America

www.scouting.org/About/FactSheets/scholarships.aspx
Boy scouts can apply for several scholarships, including the United Health Foundation Eagle Scout Scholarship and the Arthur M. and Berdenda King Eagle Scout Scholarship.

Brower Youth Awards

www.broweryouthawards.org/
The Brower Youth Awards recognize young people ages 13 to 22 who have shown outstanding leadership on a project or campaign with a positive environmental impact.

Dr. W. Wesley Eckenfelder Scholarship

www.browncaldwell.com/EckenApp.pdf
Brown and Caldwell, an environmental consulting firm, offers this \$5,000 scholarship to college students who are juniors, seniors, or graduate students majoring in civil, chemical, or environmental engineering or in an environmental science such as geology or ecology.

The Garden Club of America (GCA) Scholarships

www2.gamerica.org/outreach-scholarships.cfm
Scholarships for undergraduate and graduate students studying botany and related fields.

Girl Scouts of America

www.girlscouts.org/program/gc_central/scholarships/Default.asp
This site provides a list of colleges, universities, foundations and Girl Scout councils that offer scholarships and grants to girl scouts.

Udall Scholarship

www.udall.gov/OrPrograms/MKUScholarship/MKUScholarship.aspx
College sophomores and juniors committed to a career related to the environment, or Native American and Alaska Native students who intend to pursue careers in tribal public policy or native health care, can apply for this scholarship for up to \$5,000.

Windstar Environmental Studies Scholarship Program

www.wstar.org/windstar/Programs/EnviroStudiesScholarship/environmentalstudies.html
Applicants must be entering their junior or senior year of college or their second year of graduate school, be enrolled in a college in the U.S., and be majoring in or pursuing a degree related to environmental studies. The undergraduate award is \$500; the graduate award is \$1,000.

Young Naturalist Awards

www.amnh.org/nationalcenter/youngnaturalistawards/
The American Museum of Natural History offers awards to students in grades 7 to 12. Each applicant must submit an essay about his or her scientific investigation or project. Awards range from \$500 for a 7th grade student to \$2,500 for a 12th grade student.

April Tasks for High School Seniors

- As college acceptances arrive, compare acceptance letters, scholarship offers, and financial aid packages.
- Make your final decision about which college to attend.
- Find out the deadlines for your letter of acceptance and receipt of your deposit check. Most colleges require acceptance notification to be postmarked by **May 1**, so don't miss the deadline!
- Check with the college you have chosen about returning financial aid letters, housing choices, and deposits.
- Notify all the colleges that you have chosen not to attend.
- Make your plans for registration, orientation, and student housing, and mark your calendar with all important dates and deadlines.

Sources: *Mapping Your Future*, www.mappingyourfuture.org/collegeprep/seniorcalendar.htm

clcu College Connections, Vol. 3, No. 1, www.nycolleges.org/pdfs/CollegeConnectionsNewslett3n1.pdf

EYE ON THE ENVIRONMENT AT NEW YORK'S INDEPENDENT COLLEGES AND UNIVERSITIES

Promoting Environmental Awareness and Community Involvement

Colgate University's student-led programs include the Green Earth Gang (GEG) to promote environmental awareness among local 4th graders, the Hamilton Outdoor Group (HOG) encourage middle school students to enjoy the outdoors while acquiring respect for their environment, a Green Summit and an Earth Day celebration.

The Center for Sustainable Communities and Civic Engagement at **Daemen College** collaborates with 3 diverse communities in Buffalo on environmental, economic, and educational projects that improve life in those neighborhoods. An annual Environmental Summit was held on the College's campus on September 25, 2010.

The Finger Lakes Institute at **Hobart and William Smith Colleges** creates and coordinates a number of educational programs. Among them are Science on Seneca, which enables local teachers to use Seneca Lake and the Colleges' research vessel, the *William Scandling*, as an outdoor classroom, and the Environmental Studies Summer Youth Institute, a college-level interdisciplinary program for high school juniors and seniors.

Hartwick College marks the 40th anniversary of its Pine Lake Institute for Environmental and Sustainability Studies in 2011. The Institute includes the Pine Lake Environmental Campus, the Center for Sustainable Living, and the Robert R. Smith Environmental Field Station and promotes environmental education, research, and outreach.

In February 2011, **Hofstra University's** Center for Climate Study (HUCCS), in partnership with the Cradle of Aviation Museum in Garden City and with a grant from the U.S. Department of Energy, unveiled an exhibit that features graphic panels and video loops illustrating fundamentals of Earth's climate system and highlights of ongoing research by a team of Hofstra University professors.

Marist College held its Fourth Annual Sustainability Day on April 14, 2011, a day-long series of events including workshops, panels, films, and exhibits centered on the environment. The evening keynote speaker was Andrew C. Revkin, former *New York Times* science reporter and author of the "Dot Earth" blog for the *Times*.

The Environmental Leadership Institute (ELI), an independent nonprofit organization on the campus of **Niagara University**, focuses on local and regional environmental concerns. In addition to providing a forum for exploring environmental issues, ELI maintains a Geographic Information Systems (GIS) laboratory that uses computer based mapping technology to analyze watershed systems, climate change, and biodiversity.

In November 2010, **Siena College** was honored for being the first college in New York State and the third in the U.S. to be granted Fair Trade College status by using products that support fair pay, good working conditions, and a sustainable environment. The College hosted the Fair Trade Colleges and Universities Regional Conference on April 8, 2011.

Culture and the Environment

The Environmental Studies Seminar series at **Alfred University**, held every Friday in the fall, brings speakers on the environment, including scientists, activists, and policy makers, to the campus.

Cooper Union recently presented an exhibition of photographs by noted photographer J. Henry Fair, "Landscapes of Extraction." This exhibition, free and open to the public, featured photos depicting the damage created by fossil fuel extraction and interactive media highlighting the impact each person can have on the environment.

Ithaca College presented the Finger Lakes Environmental Film Festival (FLEFF) on April 10-17, 2011. FLEFF not only presents films, but also art, concerts, theater and talks focusing on the theme of climate change and sustainability.

James Balog, award-winning photographer and author of *Extreme Ice Now: Vanishing Glaciers and Changing Climate: A Progress Report*, presented his "Extreme Ice Survey," a look at the impact of climate change on glaciers, at **Le Moyne College** on March 8, 2011.

Educating Undergraduates: Sample Programs

The Environmental Studies major at **Canisius College** differs from its Environmental Science major by focusing on interdisciplinary connections between environmental and social systems.

Students majoring in Environmental Studies at **The College of New Rochelle** pursue a B.A. or B.S. degree depending on whether they are more interested in the natural sciences or the societal aspects of environmental issues. The program emphasizes experiential learning with internships and field trips to wildlife sanctuaries, public health facilities, and institutions such as the American Museum of Natural History and the Bronx Zoo.

Fordham University's Environmental Policy program emphasizes interdisciplinary study with concentrations in environmental design, law, economics and sustainable business, communications and media, education, biology, public health, ethics, or history.

Union College's Environmental Science and Policy Program is unusual in that its curriculum links engineering to the science and social sciences, enabling liberal arts students to learn about engineering solutions to problems.

Green Initiatives

Adelphi University is purchasing more than 20 million kilowatt hours of green power a year, enough to meet 100 percent of its electricity use. The University was recognized by the Environmental Protection Agency (EPA) as a Green Power Partner and is a member of the EPA's Green Power Leadership Club, a distinction awarded to organizations that exceed the EPA's minimum purchase requirements. In 2006, Adelphi University installed one of the first geothermal heating and cooling systems on Long Island.

Polytechnic Institute of NYU's Accelerator for a Clean and Renewable Economy, housed in the Institute's Varick Street business incubator and funded by a grant from the New York State Energy and Research Development Authority (NYSERDA), works with clean technology start-ups. Its mission is to help grow a green economy, reduce New York City's carbon footprint, and slow climate change by encouraging young scientists, engineers, and entrepreneurs to create new, green enterprises.

As part of New York State's goal of having at least 25% of its energy derived from renewable sources, the New York State Foundation for Science, Technology and Innovation (NYSTAR) is supporting **Rensselaer Polytechnic Institute's** research into the electricity distribution grid's ability to use energy from alternative sources such as solar panels, wind turbines, and fuel cells.

St. Lawrence University's Building Dashboard Web site, created with the Lucid Design Group, displays real-time electricity usage in 72 buildings on its campus equipped with meters to measure such use. Plans are under way for energy-saver competitions between dormitories and with other college campuses.

Yeshiva University launched its first Eco Rep program in the fall of 2010, in which four students were selected to learn about how sustainability plays a role in climate change, waste management, energy, transportation, water, food, and consumption.

Research for a Better Future

The Bard Center for Environmental Policy (CEP) at **Bard College** was founded in 1999 on the conviction that solutions to issues such as climate change lie in interdisciplinary research. The CEP launched its graduate program in 2001.

Clarkson University's Institute for a Sustainable Environment is the home of the University's environmental research, degree, and outreach programs. It also sponsors workshops, seminars, and a small grants program. Among the Institute's research initiatives are the Center for Air Resources Engineering and Science (CARES), the Center for Sustainable Energy Systems (CSES), and the Clarkson BioMass Group.

In December 2010, NASA's Goddard Institute of Space Studies, affiliated with **Columbia University**, issued a widely reported analysis on the warming trend in average global temperatures. Columbia's renowned Earth Institute, with 850 scientists, postdoctoral fellows, students, and staff, engages in research and applying that research to environmental challenges in an integrated way instead of treating each problem separately.

The Northeast Regional Climate Center, located in the Department of Earth and Atmospheric Sciences at **Cornell University**, serves a 12-state region and works with the National Climatic Data Center, the National Weather Service, state climate offices, and scientists to gather and disseminate accurate and up-to-date climate information.

Following up on its "Building a Sustainable Future" conference, **New York Institute of Technology's** Center for Metropolitan Sustainability will host its Sixth NYIT Energy Conference, "Beyond Carbon: Offshore Energy and Technologies," on clean and renewable energy sources.

Pace Academy for Environmental Studies at **Pace University** has furthered the University's commitment to environmental research and service by working toward the formation of the Environmental Consortium of Hudson Valley Colleges and Universities (which includes 30 of New York State's private, nonprofit colleges and universities) and launching the Beacon Institute for Rivers and Estuaries.

The Center for Adirondack Biodiversity at **Paul Smith's College** conducts scientific research aimed at conserving biodiversity in the Adirondack Park. In the fall of 2010, students worked with the Center to assess the combined effects of climate change and invasive plants on aquatic communities in the Park.

Sources: Individual college and university Web sites; www.nycolleges.org