

PROJECT ECO-DAWGS:

AN INTEGRATED APPROACH
TO ENVIRONMENTAL IMPACTS



Governor Quinn's
2011 GGCC Sustainable University
And Colleges Symposium
Heartland Community College
October 28, 2011



Project Eco Dawgs



Mission Statement:



Assist the university to establish and maintain a comprehensive & sufficiently funded institutional mechanism for furthering its efforts towards sustainability

Project Eco Dawgs



- **Comprehensive proposal**
 - Written by students and staff from the Student Environmental Center
 - Representatives from Plant & Service Operations
- **Create campus-wide vision/roadmap to increase institutional efficiency, reduce operating costs, mitigate contribution to global warming, and lighten ecological footprint**
- **Modeled after other institutions**
 - Environmental Council & Blue Illinois at The University Of Illinois at Urbana/Champaign and Green Team at Illinois State

Objectives



- Form Sustainability Council
- Establish Student Green Fee
- Create Sustainability Coordinator Position & Staff

History of Sustainability at SIUC



- **Summer 2007:** SIUC signs the Illinois Sustainable University Compact
- **Fall 2007:** Students and staff launch Project Eco Dawgs
- **February 2008:** Undergraduate Student Government passes the formation of a SIUC Sustainability Council
- **Summer 2008:** Eco Dawgs Task Force
 - Prepare Green Fee Proposal
- **Spring 2008:** 73% of students vote to pass the Green Fee in a campus-wide referendum (996-372)
- **February 2008:** Chancellor Sam Goldman appoints first SIUC Sustainability Council
- **May 2009:** SIU Board of Trustees approves \$10/semester student Green Fee
- **Fall 2009:** Campus Sustainability Project launched

Sustainability Council



- **Mission**

- Provide advice and recommendations to the Chancellor, develop plans for energy efficiency, conservation, and sustainability
- Create forum where representatives from diverse groups across the university share accomplishments and coordinate activities related to improving the sustainability of the campus.
- Recommend sustainability metrics, targets and timeline for achievements.

- **Comprehensive, holistic approach**

- Students, faculty, staff, administration, community

- **Green Fund Committee**

- Allocate Green Fee funds

- **Sustainability Advisory Panel**

- Student voice



Original Sustainability Council Members



Students

- Geography/Env. Resources
- Plant Biology
- Political Science

Faculty

- Speech Communication
- Forestry
- Geography/Env. Resources

Staff

- University Chef, University Housing
- Electrical Engineer, Plant and Service Operations
- Director, Center for Environmental Health and Safety
- Recycling and Waste Management, Plant and Service Operations

Green Fee



- **\$10 per semester**
 - Raises over \$300,000 annually for on-campus renewable energy, energy efficiency, and sustainability projects and research.
- **Green Fund**
 - Green Fund Committee
 - ✦ All 3 student members & 2 other Council members
- **Request for Proposals each semester**
 - Every SIUC student, faculty, staff and campus unit is eligible to apply for a Green Fund project grant
- **Application Guidelines online**
 - Sustainability.siuc.edu



2010 Funded Green Fund Projects



Project ID & Name	Principal Contact	Funding Awarded (USD)	Project Status	Quantified Achievements
100224: Diversifying SIUC Campus Habitats	Wodika, Ben	792.50	Complete	Restored prairie will improve Campus Lake water quality.
100213: Interveg Vegetarian Workshop	Packard, Sammy	500.00	Complete	Weekly dinner forums discussed sustainable food.
100216: Gaia House rainwater collection	Packard, Sammy	170.00	Complete	Reduced use of municipal water for gardens.
100211: Variable speed drives for chilled water pumps	Harrell, Justin	25,000.00	<i>June 30, 2011</i>	536,000 kWh electricity reduction; \$44,493 in annual electricity savings.
100222: Greenhouse assembly for sustainable vegetable production	Warner, Andilee	31,520.00	Complete	Students are growing organic vegetables for dining halls.
100205: SIUC Campus Transportation Survey	Dyer, Jon	650.00	Complete	First SIUC transportation data collection.
100204: Outdoor Learning Green Space	Midden, Karen	3,900.00	Complete	Students used LEED materials to rebuild a patio using sustainable landscape design.
100215: Green Meetings Initiative	Lindberg, Lynn	6,000.00	<i>In progress</i>	
100209: Touch of Nature energy and water reduction	Dyer, Jon	3,808.50	<i>April 2011</i>	Energy and water efficiency upgrades and related educational materials.

Sustainability Coordinator



- Fall 2010: Request for a sustainability coordinator
 - two page rationale for the position as a highly placed administrative leader
 - Appendix A: Spreadsheet of universities with established Sustainability Coordinator positions
 - Sample Sustainability Coordinator Calls
- Funding for the position
- August 2011: Council meets with Chancellor Rita Cheng

“The Sustainability Coordinator provides leadership for sustainable practice efforts on the campus in conjunction with the Sustainability Council. The Sustainability Coordinator reports to the Chancellor and works with all sectors of the university. The Sustainable Coordinator is the chief contact with the external community about issues and advances in sustainability practices at SIUC, providing the connection between campus and regional efforts.”

Campus Sustainability Project (CSP)



- Fall 2009: one student and one faculty create CSP
- Purpose:
 - Conduct research on sustainability in higher education
 - Provide educators and students with resources to help achieve campus sustainability
 - Website (sustainability.siuc.edu)





History	Sustainability Council	Green Fund	Campus Sustainability Project	Get Involved	Links & Resources
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Energy
Transportation
Waste
Food
Grounds
Built Environment
Purchasing
Water
Social Equity
Academics & Research
Education & Outreach
Community

Welcome!

Southern Illinois University Carbondale is committed to sustainability. The Campus Sustainability Project works to bring it all together and highlight campus programs and departments that work to make our campus more sustainable while also conducting research and helping the campus community achieve sustainability.

Call For Applicants!

Sustainability Council Application

The Sustainability Council is looking for a new student member.

Sustainability Advisory Panel Application

If you are a student interested in assisting the Sustainability Council, apply to be a member of the Sustainability Advisory Panel.

Green Fund Call For Proposals

Do you have an idea for a project that will advance sustainability on campus? Fill out a Green Fund Project Proposal. Due by October 14, 2011.



Construction on the Agriculture building's green roof begins

"The earth, which is taking a beating at human hands, is awash with people who express concern about it, but there is a drought of people able to organize to stop the abuse. Green Corps prepares university graduates for the essential commitment to end the drought."

CSP Internships



- Undergraduate & Graduate Assistantships
- Open to all majors
 - environmental/ sustainability research & education programs
 - develop educational materials
 - gather, analyze, and manage SIUC sustainability information
 - conduct independent research on sustainability at SIUC

Research Assistantships provide the knowledge, skills and hands-on experience needed to prepare students to enter a professional world that is quickly moving toward more sustainable solutions.



Undergraduate Assistantships



- Research Rookie
- Green Fund
- Past Examples:
 - Website management
 - Touch of Nature Sustainability Assessment
 - Pathways to Sustainability: A Planning Guide
 - Faner Lighting Audit
 - SIUC Food Shed Analysis
 - Stone Center Energy Audit
 - Conceptualizing Sustainability: SIUC Campus Ecology
 - Campus Transportation Survey

“I’m seeing how what I learn in the classroom is applied in research.”

— CSP intern Kimberly E.

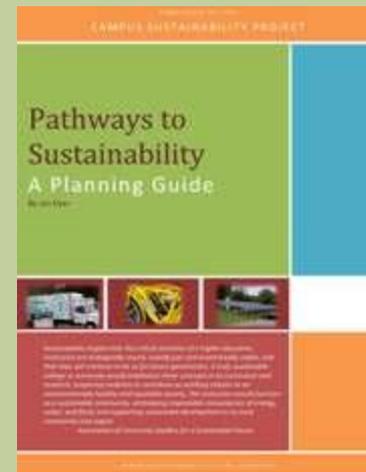
Pathways to Sustainability: *A Planning Guide*



Undergraduate Assistantship – Jon Dyer

10 Steps to Creating and Implementing an Effective Sustainability Plan

- 1. Form a Sustainability Council
- 2. Hire a Sustainability Officer
- 3. Identify areas to assess
- 4. Form working groups
- 5. Assess current practices
- 6. Set goals, priorities, & timelines
- 7. Identify area specific action steps
 - Energy, Water, Waste, Built Environment, Transportation, Purchasing, Grounds, Food, Academics & Research, Education & Outreach
- 8. Compile, draft, & release
- 9. Implement
- 10. Track progress



Faner Lighting Audit



- Research Rookie - Kimberly Elsenbroek
- Measure how often and where lights are on when natural light is sufficient
 - How much money the resulting unnecessary light usage costs the University
 - Explore possible cost-and-energy savings
- Working relationships
 - Electrical Engineer Justin Harrell
 - Professor Matthew Therrell, Geography and Environmental Resources Department



“RESEARCH ROOKIE” TAKES ON ENVIRONMENTAL PROJECT

Have you ever noticed hall lights that are on even though the hall is well lit from a window or doorway? Maybe not, but **Kimberly Elsenbroek** probably has.

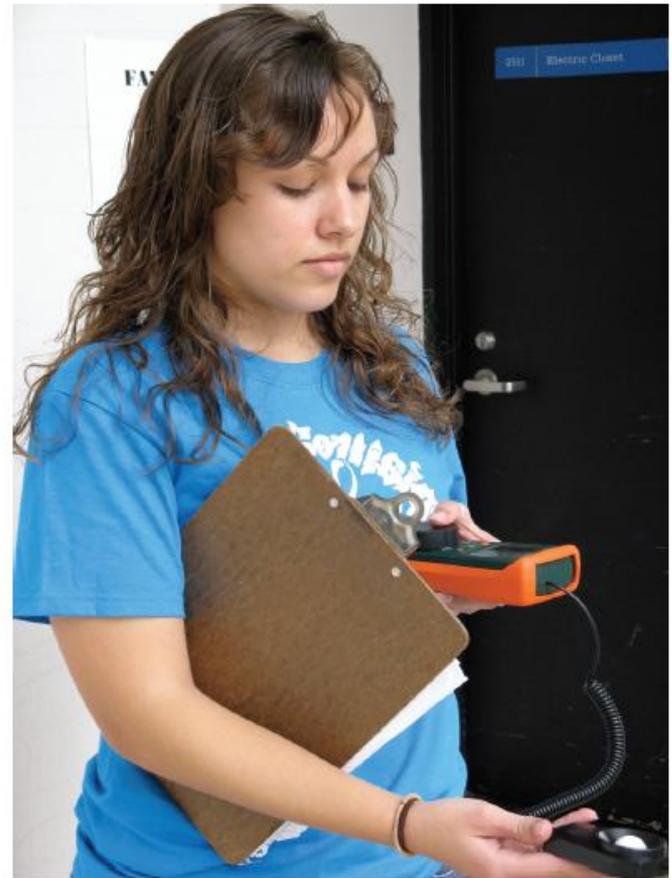
Elsenbroek, a freshman in the Department of Geography and Environmental Resources at SIUC, recently conducted a study of lighting usage in Faner Hall on the SIUC campus. Her research determined how often and where lights are on in Faner Hall when natural light is sufficient, and how much money the resulting unnecessary light usage costs the University. Elsenbroek explored possible cost-and-energy savings measures as a conclusion to her sustainability research project.

Armed with a light meter and lighting blueprints for Faner Hall, Elsenbroek measured the natural light in hallways and doorways in Faner Hall at different times of day, at various points during the year, and in different weather conditions affecting sunshine. She found that some areas of Faner Hall are frequently well lit naturally, with no need for artificial lighting. Her research indicates the University spends approximately \$2,500 a year on unnecessary lighting in Faner Hall.

Elsenbroek concluded that a light-sensor system that would automatically turn on or off artificial lighting is the best answer to address unnecessary lighting. Installing such a system is not cheap, she noted, estimating that the payback on the measure would take about 10 years. She was still working on exact numbers and projections as she concluded her research.

Elsenbroek was one of the inaugural Saluki Research Rookies. This undergraduate research program, launched in fall 2008, is designed to engage freshmen in research projects.

Elsenbroek said her early involvement with an in-depth research



Kimberly Elsenbroek, a freshman in the Department of Geography and Environmental Resources, uses a light meter to check the levels of lighting in a doorway in Faner Hall.

SIUC Foodshed analysis



- Research Rookie - Makayla Trotter
 - Travel miles & carbon footprint analysis.
 - ✦ single meal at an SIUC dining hall
 - Survey 200 students surveyed
 - local producers within a 250 mile radius of Carbondale
 - presented findings at the October 2009 Association for the Advancement of Sustainability in Higher Education (AASHE) conference



Internship this fall as a National Geographic geographic intern in the Education Division in Washington, DC

Graduate Assistantship - LOGIC



- LOGIC - Local Organic Gardening Initiative of Carbondale
 - Garden Manager
 - Student-run organic farm
 - Registered Student Organization



“This internship was perfect for me because it provided me an opportunity to put prior learning into action and make my own decisions, but I still was provided with guidance along the way.”

-CSP Graduate Internship, Laura W.

Graduate Assistantship - Going Green LLC



- **Living Learning Community open to all majors and ages**
 - Students participate in projects designed to develop sustainable solutions to campus environmental problems
 - Connects students with environmentally-minded interests

University Associate for Going Green LLC

- Plan & execute programs
- (Speaker /movie Series)
- Newsletter, calendar
- Reach out to students

- **Last year: Recycling Study**
 - student's attitudes v.s. recycling options available
 - Undergraduate Researcher
 - Weigh recycling on 3 separate floors

Outreach



- **Green Scholarships**
 - Up to \$9,000 undergraduate scholarships awarded to low income Community College Transfer Students
 - Selection based on academic achievement, environmental interests, career goals and aspirations, leadership experience, and financial need.
- **Student Center's Sustainability Committee**
 - Hosts Campus Sustainability Day Green Fair and Earth Day Green Fair
 - Increased recycling locations and efforts
 - Provide green meeting tips to clients
 - The Craft Shop offers many recycling and re-usage programs and workshops to students and the community
 - ✦ Saluki Spokes
 - ✦ Bike Watch Program
 - ✦ Birdhouse Factory
 - ✦ Tin Can Banjos

*Concrete Dawgs, SIUC Craft Shop:
These statues are made with a
mixture containing fly ash, a waste-
product from the coal power plant*



Student Engagement



- ▶ **Service Learning and Volunteerism**
- ▶ **SIUC Environmental Ambassadors Program**
 - Green Fund Grant associated with Saluki Volunteer Corps
 - Honorary title given by the university for contributing 30 hours of environmental service
- **Registered Student Organizations**
 - EcoDawgs
 - ✦ Advance sustainability at SIUC by demonstrating leadership through education, networking, campaigning, project implementation, active demonstrations, events, and community service
 - LOGIC (Local Organic Gardening Initiative of Carbondale)
 - Green Fund grant for establishment of student-led education, outreach and/or research project
 - Environmental Coalition
 - Purpose: promote and coordinate environmentally friendly practices on and around campus and integrate the multiple student eco-friendly organizations in a cooperative spirit
- ✦ **Blog – Sustainability at SIUC**
 - <http://sustainabilitysiuc.wordpress.com>

EcoDawg members on a field trip to Powershift 2011, a youth-led environmental conference in Washington, DC





A Green Fund Grant allowed for the installation of four water-bottle fill stations on campus

Green Fund Project: Green Roof being installed on Agriculture Building roof.



Volunteers doing trailwork in Shawnee National Forest



Campus Sustainability Project intern researching in Mozambique, Africa



University Housing Chef Bill Connors: also a representative on the Food Jobs and Farms Council of Illinois



Volunteers conducting community service



Fresh greens being grown at LOGIC



Saluki 'Eco Dawg' made from recycled astro-turf from old stadium. Courtesy of SIUC Craft Shop

Project Eco Dawgs



- Holistic approach
- Interdisciplinary
- Student / research centered



Partnerships



- Plant and Service Operations
- University Housing
- Southern Illinois Center for a Sustainable Future
- Student Center's Sustainability Committee
- Student Recreation Center's Green Team
- Interfaith Center
- Vermicomposting Center
- Student Center Craft Shop
- Touch of Nature Environmental Center
- Registered Student Organizations
- Department-level sustainability coordination and planning
 - Department of Geography & Environmental Resources
 - College of Agricultural Sciences
- Community Organizations
 - Keep Carbondale Beautiful
 - Green Earth, Inc.
 - Food Works
 - Neighborhood Co-op
 - Patrick Sweeney/Green Ridge Farm

Project Eco Dawgs



- Holistic approach
- Interdisciplinary
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Students at SIUC are in the position to continue building this leadership and to continue affecting positive change

-Resolution in support of the formation of a SIUC Sustainability Council