Higher Education for Sustainable Development in the U.S. – Trends, Resources and Opportunities for Faculty











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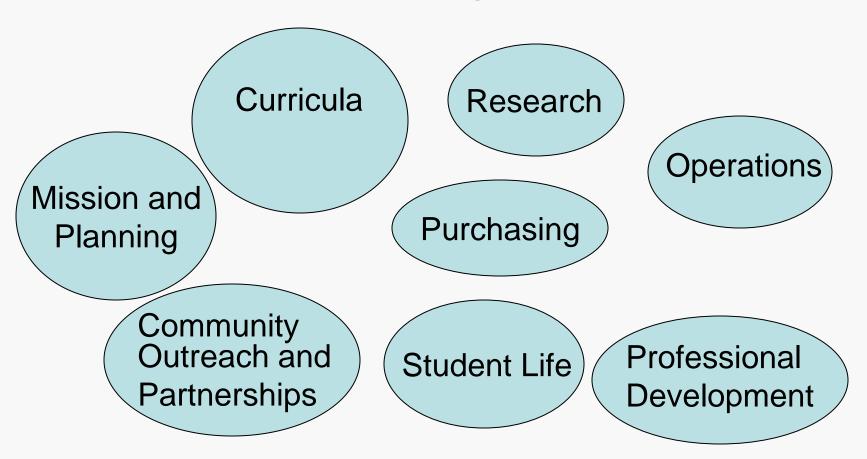
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Today's Topics

- Part I Examples of Educating for Sustainable Development
- Part II Trends
- Part III Examples
- Part IV Resources
- Part V Next Steps for Courses
- Part VI Next Steps for Institutionalizing Sustainability in Curricula and Other Areas of the College

For higher education, Sustainable Development integrated into:



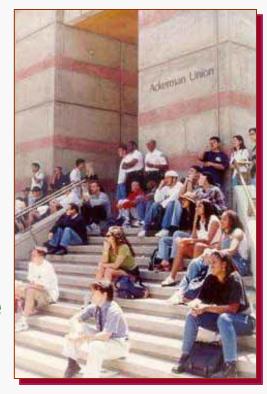
Plus legislation and media for the public



Change norms so all students and the community become:

- environmentally responsible
- socially responsible
- economically responsible

Creating sustainable abundance and higher quality of life



Key places to place sustainability and institutionalize it:

- Mission
- Strategic Plan
- Budget
- Orientation
- Campus Map and Signage
- Building Policies
- Operations and Purchasing Policies

- Student Life
- Residential Living
- Infused throughout curricula
- First Year Experience
- Gen Ed Core
- Curricula Review
- Community Partnerships
- **Purchasing Policies Workforce Developmt**

Resources Used

AASHE Bulletin (weekly, free)

 AASHE Digest (annual digest of news stories by topic)

Curriculum



Curricular Initiatives

- Programs, Degrees, Institutes, Centers
 - Ex: Arizona State U PhD in Sustainability
 - Ex: Duquesne U MBA in Sustainability
 - Ex: Washington State U B.A. in Organic Agriculture
 - Ex: U Minnesota Minor in Sustainability
 - Ex: Coastal Carolina U Center for Campus & Community Sustainability
 - More very day, including community colleges (ex. OCC certificates in Renewable Energies and Sustainable Living, other comm. Colleges minors and majors in Sustainability)

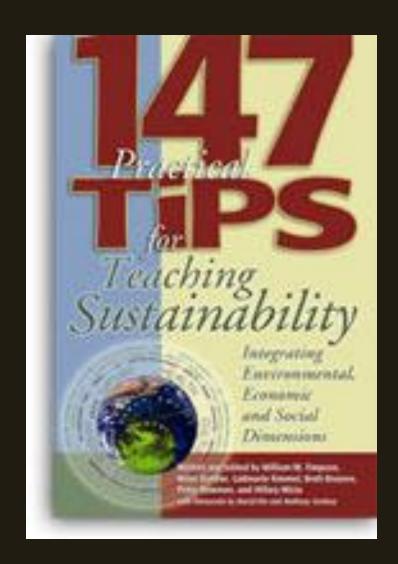
Curricular Initiatives

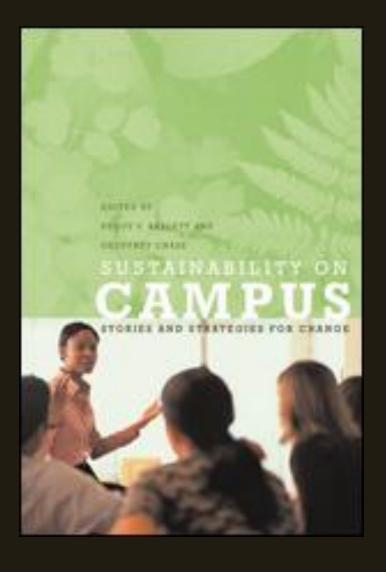
- In General Education Core
 - Ex: Oakland CC, Miami Dade, Maricopa, many more
 - Ex: Minnesota Colleges & Universities
- Infused Throughout Curriculum
 - Ex: Chandler-Gilbert CC
 - Ex: Emory U Piedmont Project
 - Ex: Corning Comm. College
- Interdisciplinary Assignments Ex. Students creating Positive Future Fairs
- Interdisciplinary Sustainability Faculty
- S in the schedule of classes and a concentration

Key EFS Ideas

- Making invisible impacts visible
- Practicing sustainability on campus and in external communities, connected to student learning, and focusing on how to be systems thinkers and effective change agents
- Involve all disciplines Use the following:
 "Each discipline has a unique contribution to make to educating students for a sustainable future."

Curriculum & Academics





Curriculum & Academics

Use national and international resources

Academic Guidance

Document from

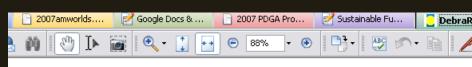
<u>ACUPCC</u>

Earth Charter! www.earthcharter.org

AASHE (click on Resources)

www.aashe.org

Curriculum Success Stories www.ncseonline.org/EFS/DebraRowe.pdf



ENVIRONMENTAL LITERACY AND SUSTAINABILITY AS CORE REQUIREMENTS: SUCCESS STORIES AND MODELS

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Reprinted from <u>Teaching Sustainability at Universities</u>, 2002, Walter Leal Filho, editor, Peter Lang, New York

Keywords Civic Engagement, Environment, General Education, Literacy, Social Responsibility, Sustainability

Abstract At a number of colleges and universities, the core General Education requirements for all degrees include an in depth exposure to environmental literacy. Many colleges are also including a degree requirement in the area of social responsibility and/or civic engagement. Colleges include sustainability curricula using a variety of models. The first baseline national surveys have collected information about the percentage of institutions incorporating sustainability into curricula, course design and content, faculty development and outcomes. What does the data to date describe in terms of the models for inclusion of environmental literacy, social responsibility and sustainability in higher education?

For many colleges, it is politically difficult to add additional courses for degree requirements. Some higher education institutions have solved this dilemna by integrating environmental literacy, social responsibility and sustainability course materials into existing liberal arts and specialty courses. Models have been developed that are flexible, inexpensive and fun to implement within a variety of disciplines or as part of an interdisciplinary learning community. According to research, for both teachers and students, these models reduce apathy, and instill attitudes and skills required to be positive change agents for the society.

Research results support students using these models developed an:



Learning Outcomes

- Each student will be able to define sustainability.
- 2. Each student will be able to explain how sustainability relates to their lives and their values, and how their actions impact issues of sustainability.
- 3. Each student will be able to utilize their knowledge of sustainability to change their daily habits and consumer mentality.
- 4. Each student will be able to explain how systems are interrelated.

Learning Outcomes

- 5. Each student will learn change agent skills.
- 6. Each student will learn how to apply concepts of sustainability to their campus and community by engaging in the challenges and solutions of sustainability on their campus.
- 7. Each student will learn how to apply concepts of sustainability globally by engaging in the challenges and the solutions of sustainability in a world context.

Strategies may include:

- 1. Development of educational modules on change agent skills to be distributed for use by educators;
- 2. Involvement in: campus, community, state and national policies (e.g. city council, county council, Board of Trustees);
- 3. Real world, problem based learning in curricular and co-curricular settings;
- 4. Participation in political campaigns;
- 5. Service and service learning experiences beyond symptoms

Assignments may include:

- 1. Modify the institution's and student organizations' practices, mission statements, and constitutions;
- 2. Utilize student governance structures to request compliance with LEED and other sustainability standards;
- 3. Awareness raising campaigns;
- 4. Letter writing campaign and implementation project for sustainable practices in dining services unit on campus;
- 5. Work with campus facilities/grounds units to assess and improve current practices;
- 6. Work with facilities and business office to create more sustainable operations and standards;

Assignments may include:

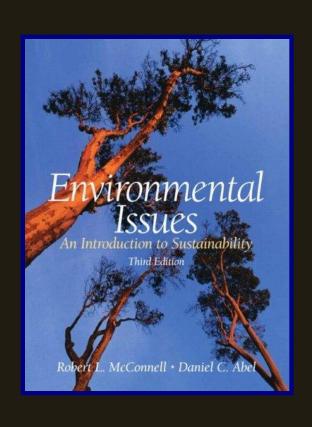
- 7. Social Science Course? Organization of community recycling and reduced toxins program;
- Environmental Science course? Environmental impact statements from campus student governance groups;
- 8. Marketing Course? Carpooling and energy conservation behavior campaigns;
- 10. Facebook groups;
- 11. Curricular "change" projects;
- 12 Journalism course? Utilize campus and local media
 - Media Strategies for Sustainability.

Assignments may include:

- 13. Finance or Accounting Course? Life cycle full cost analysis.
- 14. Economics Course? Analyze what national policies are needed for a sustainable future.
- 15. Public Affairs Course? Educate legislators about the above policies.
- 16. Business or Management Course? Work with local businesses to create sustainable practices.
- 17. Writing course? Write sustainability oriented grants for non-profits

Reference:

McConnell, R.L. and D.C. Abel. 2008. Environmental Issues: An Introduction to Sustainability. Pearson Prentice Hall, Upper Saddle Rover, N.J., 338 pp.



This unique case study book provides students with the critical thinking and math skills needed to examine and analyze environmental issues relevant to today's world.

- Features current and timely rather than hypothetical situations
- Presents the tools of critical thinking and applies them throughout the book, encouraging students to assess their own reasoning
- Includes basic mathematical formulas explained in a step-bystep manner to help students gain confidence in their own math proficiency
- Integrates information and questions on sustainability throughout the book
- Suggests examples for further research while encouraging students to explore the implications, significance, and validity of their work
- Suitable for wide variety of introductory and advanced courses in environmental science, environmental studies, sustainability or sustainability learning activities in a variety of disciplines

Combine a sustainability big concept with a big concept from your discipline and create a learning activity.

e.g. – operant conditioning, sensation and perception

Discipline Contributions

 What are the unique perspectives/contributions that your discipline can bring to sustainability challenges and solutions?

 Please write up 1-2 paragraphs on this right now (if time allows.)

Business Courses – Resources on Sustainability

The <u>Aspen Institute</u>: 2008-2009 <u>Guide to Socially Responsible MBA</u> <u>Programs</u>. The new global guide provides an overview of how MBA programs bring environmental, social, and ethical issues management into their curricular and extracurricular programs.

- Principles for Responsible Management Education (PRME) provide framework for academic institutions to advance corporate social responsibility through the incorporation of universal values into curricula and research. The PRME is coordinated by a Steering Committee constituted of the Association to Advance Collegiate Schools of Business (AACSB International), the European Foundation for Management Development (EFMD), the Aspen Institute's Business and Society Program, the European Academy for Business in Society (EABIS), the Graduate Management Admission Council (GMAC), the Globally Responsible Leadership Initiative (GRLI), Net Impact and the United Nations Global Compact.
- Beyond Grey Pinstripes is a biennial survey and alternative ranking of business schools. Our mission is to spotlight innovative full-time MBA programs that are integrating issues of social and environmental stewardship into curricula and research.

Sustainability oriented business-teaching materials and resources:

- <u>CasePlace</u> resource for up-to-date case studies, syllabi and innovative teaching materials on business and sustainability— from corporate governance to sustainable development.
- World Business Council for Sustainable Development (WBCSD) is a CEOled, global association of some 200 companies dealing exclusively with business and sustainable development
- <u>BELL Teaching Case Studies</u> BELL teaching cases explore sustainability related business challenges and capture business decisions that identify environmental challenges as business development opportunities.
- Natural Step Case studies
 - Scandic Hotels
 - The Co-operators
- Center for Sustainable Systems case studies
- Entrepreneurs for Sustainability Success Stories
- Net Impact Guide to Social & Environmental Issues in Business Programs
- Global Lens University of Michigan

International Federation of Accountants

For example, in dealing with carbon emissions, professional accountants should understand (a) its strategic importance for the organization, (b) the internal management and measurement perspective, (b) the external reporting of carbon emissions, and (c) the engagement with wider stakeholders in considering an organization's long-term carbon footprint.

http://web.ifac.org/sustainability-framework/overview

Many more resources at the Disciplinary Associations Network for Sustainability:

http://www2.aashe.org/dans/resources.php

Community Partnerships via Academic Assignments



Student Life and Academics working together!!



Campaigns

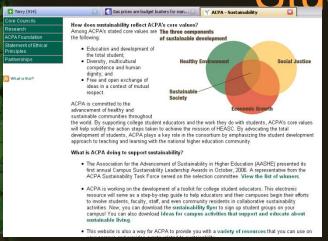
- Campus Climate Challenge
 - 30+ youth organizations for clean energy
 - MTV/ThinkMTV Break the Addiction campaign
- Sustainable Living
 - Eco-Reps, peer-to-peer sustainability outreach campaigns
- Student Green Fees
 - Renewable energy; sustainability projects
- Fair Trade (coffee, tea, sugar, choc.)
- Divestment (ex: Sudan)

Competitions, Awards and National Activities

- Recyclemania 200+ campuses
- NWF Chill-out annual video competition and Campus Ecology Fellows
- Campus Sustainability Day
- AASHE Student Award
- National Teach In
- Powershift

Governance & Management

Student Services





EDUCATION FOR SUSTAINABLE DEVELOPMENT

The United Nations declared a Decade of Education for Santainable Development (2005-2014) to promote the local and global acceptance of principles of "assimable development," ACPs is taking a leading cole in a national initiative to help center the U.S. higher education response to the United Nations Decades of Education for Sustainable Development. This document provides the background on education for sustainable development, the electrophene of U.S. higher decisions; and what further development, the role of U.S. higher decisions; and what further development, the role of U.S. higher decisions; and what further decisions; and storage commons, and scrope common and the control of the c

What is Sustainable Development?

From the 1987 Brundtland Commission, the most common definition of sustainable development is "meeting the needs of the present without componensing the ability of finance generations to meet their own needs." In 2003, Dr. Rolf Jucker further illuminated the idea: "Sustainability is anothered them all opple on Barth on the well without compromising the quality of life for future generations." (told Jucke, 2003, UNISSO Traching end Leanning for a Susinghier Meeta C. Acida Hubania, Trangeria, Val. 97 No. 2;

The vision of sustainable human society resides in the simultaneous and synergistic creation of economic growth and equity, conservation of natural resources and the natural environment, and sustainable social development and social instruct. It is often visually reconsecuted as follows:



stice, and strong economies.

There is an ungent need for US higher education to advocate for statistical development. The teast to which we he people of the United States, adopt and embesses the principles of statistically development may determ the quality of life that our country and all humanity neight in the deadles ahead. Around the word, billions of people seek what we have. As 37 of a better of the words's population, we consume 25% of the words's secures. The Earth simply cannot to beauts billions of people following the path we chose. Now, as repromible leaders, we must demonstrate new paths to exonomic property which do not compromise our future. Many US. citizens do not how their

- We are exceeding the carrying capacity of the planet.
- The ecosystems are degrading

initiatice now.

- (http://www.worldwatch.org/topics/nature)
- The U.S. has approximately 5% of the world's population and is consuming 25% of the world's resources.
- We can economically reduce human suffering, environmental degradation and social
 - N/ACDA

ACPA main sustainability page, student flyer, primer, list of possible campus activities, and chart of learning outcomes!



ACPA College Student Educators International – Sustainability Taskforce Student Learning Outcomes November 10, 2006

Student Outcomes:	Dimensions of Outcomes (Competencies):	Possible Developmental Experiences for Learning (Strategies):	Bodies of Knowledge for Educators:
Each student will be able to define sustainability.	• Understand the definition of unstandability. Understand the occupant of unitability are consected to issues of social justice, the surrounsest, and the scenerarian Explore when concepts on local, statistical, and international learning. Become surrous that all ecosystems are degrading and where to go for information about this: (wown worldwarch.org). Become survoice that all ecosystems are degrading and where to go for information about this: (wown worldwarch.org). Become survoice that we are accessing the carrying especiety of the planet, with the U.S. having 5% of the world's arrange of the state of the carrying in the two of the U.S., we would need 4.5 planets. (www.navfootnint.org).	Rasidence hall programs: FVE and crientation programs: campus speaker series. Balloin boards; service and service series balloin boards; service and service controlled and occurricular collaborations (a.g. gausani discounting service). The service community reading boads; from half formus; such, sent assertice-shreed experiences; film service-shreed experiences	
 Each student will be able to explain how sustainability relates to their lives and their values, and how their actions impact issues of sustainability. 	Self-reflect on values and absite: Meantify personal values and understand these values undim the context of a larger society. Understand how personal closicus and labelts can affact unstainability. Understand implications for aconomic growth and equity (Foster responsible long-term growth while assuring that no nation are community in Self-ballet individual level. Onto the monodegic of the others of and individual level. Control or one occupy research of human suffaction of level choices on a occupy research of human suffaction.	Residence hall programs; orientation and FTP activities; cons-one conversations with undest affirs staff members; sarcte and service learning experiences; programs openeded by campus faith- based organizations and offices, curricular projects.	

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Making Sustainable Development Part of the Professional Norm

Share with other faculty and staff:

- * informational resources on web pages
- * books reading club Plan B!!
- * participate in monthly AACC calls
- * workshops
- * community of practice
- * more lunch club at Emory

Systemically integrating sustainability into higher education

Core Questions for Next Steps

- 1. What can we implement immediately?
- 2. What are the key strategic actions we can take to shift to a
 - sustainable institution and society?
 - 3. What are the multiple ways you can empower others and create a culture of sustainability?
- 4. How can you institutionalize these efforts?

Changing the norms!

Strategies:

- 1. What are your barriers?
- 2. Let's discuss the solutions!
- 3. What are your potentials?
- 4. Let's discuss the strategies to get there.
- 5. What else?

The Power of What You Do



We can choose a sustainable future



Questions or Comments?



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Let your enthusiasm show!