

Sustainability Across the Curriculum From Brainstorm to Action: Realizing Our Education and Outreach Goals

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What does sustainability mean??

- **Sustainability means understanding that we are only part of a broader network of life, and with this understanding we allow everything (plants, animals, etc.) to have the right to live and succeed. ~Bridgette**
- **Sustainability: The persistence and increased longevity of life in general through balanced, responsible, and fair use of natural resources. ~Andy**
- **Sustainability means living in harmony with nature. It does not mean that we have to give up our life. Moreover, we can develop our economy to support the environment. In other words, it is the development of both humans and nature. ~Tsugumi**
- **To me, sustainability has two parts: physical and sociological. Physically, it requires that we incorporate ourselves into our environments, instead of vice versa. Sociologically, it requires that we allow social justice issues to guide our economic decisions, both locally and world-wide. ~Flannery**

What does sustainability mean??

- **Sustainability is a concept that reflects our acceptance, as a society, of responsibility to future generations. As often quoted, the guiding principle in sustainability is to meet our present needs without compromising the ability of future generations to meet their own needs. To be truly sustainable, an action or decision must consider economic, social, and environmental implications in both the short and long term.**

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Sustainable Curriculum and Pedagogy

- Sustainability across the curriculum is not just about teaching ecological literacy, but also, as we understand it, about extending that literacy to social justice and economic considerations.
- It is also about the methods we employ in helping our students gain that literacy, an approach that requires us to adapt our teaching to fit localized, regionally-specific student communities and objectives.

Education for Sustainability

“education for sustainability is linked to content and pedagogy—how we teach is as important as what we teach” (Chase and Rowland 97).

Sustainability: Pedagogy and Curriculum

- Who do we teach?
- Where do we teach?
- How do we teach and why?
- What do we teach?

Who do we teach?

- Who are our students?
- Where do they come from?
- What preparation do they have for college?
- What do they value?
- What are their learning styles?
- What teaching strategies will best help them learn?

Where do we teach?

- What does it mean to be a comprehensive master's institution in rural west central Illinois?
- What is the history of this institution relative to the community and the students?
- What differences do we see between the QC and Macomb campuses in terms of geography, demographics, facilities?

How do we teach and why?



What is the rationale behind each pedagogical strategy I employ?

- Group work
- Service learning
- Reading responses
- Peer review
- The research paper
- Oral presentation
- Multiple choice question exam
- Lab report

Applying Sustainability Principles to Pedagogy

Ecological integrity...	<ul style="list-style-type: none">...cultural, social, and physical context of the classroom...mode of course delivery...type of institution
Social equity...	<ul style="list-style-type: none">...students' learning needs...accessibility...cultural considerations
Economic stability...	<ul style="list-style-type: none">...connecting with students...course expectations and policies...evaluation and grades

The Role of Technology in Sustainable Pedagogy

The extent to which a technological innovation will be accepted by an individual or community and the amount of time and effort acceptance or adoption requires is determined by five factors:

- relative advantage the innovation holds over its predecessor;
- compatibility with the audience or user's values, needs, and experiences;
- complexity;
- trialability;
- observability or visibility in terms of results (Rogers 15-16).

Technological Traditions and Innovations

- an innovation's sustainability—whether it is a teaching strategy or the technology itself—will never be realized if it is not accepted by the individuals or students affected.
- as our communication technologies develop and change, our ability to engage our students and meet both their needs and the needs of future generations are determined by both our and their knowledge of and comfort with particular technologies.

Modifying Our Pedagogies to Be More Sustainable

- What will help my students learn?
- What will help my students contribute to a sustainable world now and in the future?
- How does my philosophy of teaching also reflect my sustainability goals and values?

What is at the core of a sustainable pedagogy?

Conscientious application and practice tied to beliefs and knowledge about

- how the world works,
- what facilitates communication and learning in that world, and
- what might sustain that world in positive ways for the future.

Commitment to

- knowing why we do what we do the way we do it,
- tracing our practices in the classroom back to their origins, and
- adapting to new situations, environments, crises, and technologies.

Other Important Considerations

- Understand Us and Them
 - Students are transient communities while we are (relatively) fixed
 - “as teachers are faced with students from whom they feel distant, either by age or experience, race or languages, or different access to power, it’s important to find common ground, shared spaces of concern, and topics of interest. We share with students and colleagues the everyday realities of material conditions and physical spaces of campuses and towns, buildings and streets” (Reynolds 7).

Other Considerations

- Celebrate Diversity
 - Helping our students to understand the ways we and they perceive relationships to individuals, communities, the ecological, social, economic, and technological world around them—consciously or unconsciously—is thus crucial to our engagement with them as learners and members of specific discourse communities.

Other Considerations

- Recognize Alienation and Marginalization
 - When is how we teach or what we teach exclusionary?
 - When do students feel alienated by discourses they don't yet understand?
 - What are the signs of alienation (e.g., patch writing, low exam scores, poor reading comprehension, poor class attendance)?

Guiding Principles for Sustainable Pedagogy

- ecological, economic, social, technological, and moral accountability in the practice, study, and teaching of any discipline;
- the impact of ecological, economic, social, and technological innovations on individuals' learning and discourse communities in terms of processes, development, and outcomes;
- the phenomena of teaching and learning as grounded in place (defined broadly in its multidimensional complexity);

Guiding Principles for Sustainable Pedagogy, con't.

- classroom practice as continuously and directly connected to local and global communities, including real possibilities for student engagement in class and across disciplines to effect change within communities;
- ongoing adaptation of pedagogy and genres to the learning, cultural, and spatial needs and contexts of individuals and communities over time;
- accessibility and usability for a particular community in any communication between teacher and students, which includes asking who has access and who is excluded and what factors (medium, content, etc.) enhance or impede access and use.



What do we teach?

Curricular Items from the Talloires Declaration

- **#3. *Educate For Environmentally Responsible Citizenship:*** Establish programs to produce expertise in environmental management, sustainable economic development, population, and related fields to ensure that all university graduates are environmentally literate and have the awareness and understanding to be ecologically responsible citizens.
- **#4. *Foster Environmental Literacy For All:*** Create programs to develop the capacity of university faculty to teach environmental literacy to all undergraduate, graduate and professional students.

Sustainability Academic Research and Curriculum Subcommittee: Brainstorm

- Follow through on facilitating the program proposed in Patrick Mossman's report "Sustainability and Curriculum: Proposal for the Prairie Project at Western Illinois University"
- Work with CTR to develop a faculty fellow position in sustainability
- Develop an Academic Sustainability Innovation Program
- Work with the sustainability coordinator to create a "Rocky Sustains Alumni Network" site/database
- Work with the sustainability coordinator to develop the educational aspect of the sustainability committee website so it can be used as an educational tool
- Update the sustainability course list (<http://www.wiu.edu/vpas/sustainability/classes.php>)
- Work with other committees and departments to create more sustainability-oriented curricular programs
- Encourage faculty and students to use independent study credits to focus on sustainability within the course structure (e.g., a 1-credit independent study added to an existing course)

Action (so far!)

- IES, in collaboration with the sustainability ACR committee, is working to update its website to include more sustainability education and outreach resources
- Faculty are being supported to attend conferences where sustainability across the curriculum is a focus
- Several faculty are actively integrating sustainability into their courses and new courses in sustainability are being approved
- Educational workshops will be offered beginning next August on strategies for integrating sustainability across the curriculum

What else?

- What's going on in your department?
- What are you doing in your classroom?
- What would you like to see happen?

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