

Sustainability Education Framework

Draft 7-31-09

This document outlines a framework to assist in integrating sustainability across the curriculum in higher education. It attempts to articulate a *clear vision for sustainability education* that is specific enough to help newcomers to the field while being open enough to include multiple perspectives and approaches. One foundational principle of this work is that faculty own the curriculum – collectively within an institution and individually for particular courses – and we do not intend to dictate specific content or propose a new curriculum. Rather, we seek to provide guidance for individuals, institutions, and organizations seeking to encourage the inclusion of sustainability at appropriate places within higher education curricula.

This handout provides three levels of increasing specificity: 1) General principles for sustainability education intended as entry points; 2) Specific educational goals, 3) Representative student learning outcomes that might be appropriate for assessment within a course or assignment. None of these levels are exhaustive; rather they are suggestive of the wide range of knowledge, skills, and values encompassed by a focus on sustainability. Hopefully, this handout helps to provide connection points where faculty can see linkages to their courses and their discipline, as well as leverage points for the transformation of higher education in service of a sustainable society.

Principles	Educational Goals	Representative Student Learning Outcomes Sustainability education prepares students to:
1. Sustainability education emphasizes systems thinking	An understanding of social and ecological systems including feedbacks, systemic limits and interdependence	<ol style="list-style-type: none"> 1. Recognize the interdependence of species and the dynamic interrelationships within social and ecological systems. 2. Comprehend systemic limits such as carrying capacity and the ways in which human systems can and do threaten ecological systems. 3. Synthesize the complexity of proposed solutions to environmental issues such as climate change. 4. Predict how human activities affect environmental health.
2. Sustainability education is practiced locally	A connection to place and the ability to apply problem-solving skills to real world sustainability challenges	<ol style="list-style-type: none"> 1. Develop an appreciation of local biomes, watersheds and natural history. 2. Apply working definitions of sustainability to local environments. 3. Assess the effects of new technologies and the relationship between technological and other types of solutions. 4. Frame problems and apply problem-solving techniques to sustainability issues of sustainability. 5. Evaluate proposals for creating a more sustainable future. 6. Develop ease working with partners and community agents
3. Sustainability education extends globally	An intercultural and intergenerational perspective that nurtures empathy, awareness, and respect	<ol style="list-style-type: none"> 1. Empathize with cross-cultural perspectives and examine how cultural assumptions correspond to environmental and social problems. 2. Articulate the relationship between poverty, security, social justice, and environmental degradation. 3. Recognize issues of intergenerational responsibility and be able to articulate a positive vision for a just and sustainable society. 4. Understand how local, regional, and national actions have global impacts.

Principles	Educational Goals	Representative Student Learning Outcomes Sustainability education prepares students to:
4. Sustainability education focuses on community	A critical appreciation of the centrality of community and the complexities of environmental, social, and economic relationships at every level	<ol style="list-style-type: none"> 1. Understand how globalization often intensifies ecological challenges. 2. Correlate biodiversity with ecosystem health. 3. Apply concepts of ecosystem services to environmental communities. 4. Appraise how human consumption affects non-human species. 5. Reflect upon and enunciate the nature and value of sustainable community.
5. Sustainability education highlights connections	A collaborative perspective on sustainability challenges that bridges academic disciplines	<ol style="list-style-type: none"> 1. Realize why sustainability demands participation from all academic disciplines. 2. Express knowledge, values, and commitment through a variety of media, including literary and artistic expression. 3. Synthesize multiple approaches to sustainability challenges informed by an historical perspective. 4. Distinguish how human systems of economy, politics, and culture become enmeshed with ecological concerns.
6. Sustainability education nurtures personal and social responsibility	An informed, ethical, and scholarly sense of citizenship	<ol style="list-style-type: none"> 1. Identify normative assumptions and ethical frameworks for sustainability including equity, justice, human rights, and extending the moral community. 2. Formulate personal values within the context of a larger society and grasp how these values are manifested in daily habits. 3. Understand humans' place in ecological systems. 4. Evaluate how principles of environmental ethics apply to diverse issues such as population, habitat quality, affluence, and energy use. 5. Integrate virtues such as empathy, inquisitiveness, respect, and humility into personal responses to environmental problems.
7. Sustainability education fosters transformation	A commitment to action where skills, attitudes and knowledge are applied to issues of sustainability	<ol style="list-style-type: none"> 1. Develop skills and strategies to enter into political discourse relating to environmental issues. 2. Analyze environmental rhetoric and create persuasive arguments that address sustainability issues. 3. Advocate for change through collaboration, mediation, and consensus-building strategies. 4. Commit to social change based upon collective visions of a sustainable future.

AASHE Curriculum Working Group: John Farnsworth (Santa Clara University), Jon Jensen (Luther College), Laura Lengnick (Warren Wilson College), Jean MacGregor (Evergreen State University), Dan Sherman (University of Puget Sound), Jim Zaffiro (Central College)