Interdisciplinarity through a modular sustainability curriculum

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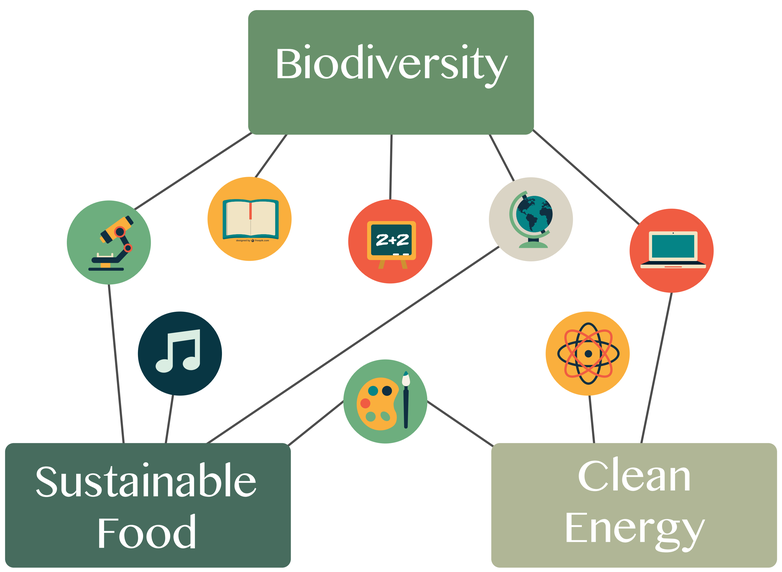
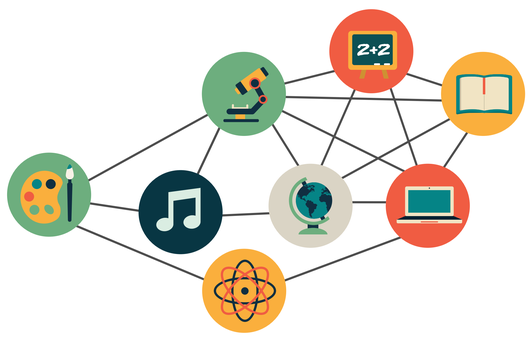
Common modules are implemented across diverse courses



Student products are generated and shared across courses

Interdisciplinary reflection essay uses products created by other students

Integration across disciplines is made through connections among courses...



...rather than relying on a student's progress through a required sequence

Curriculum has common and course-specific learning outcomes

Curriculum	Module: Sustainable Food	Course-specific: Principles of Ecology (BIOL 203)	Course-specific: Global Environmental Politics (PLSC 390)
Define sustainability, including the three pillars of sustainability	Explain how a sustainable food system requires an integration of economic, social, and environmental perspectives		
Identify key questions related to sustainability			
Apply discipline-specific theories and use data to answer questions of sustainability	Apply concepts from within a discipline to assess the impacts of different dietary choices, including: Personal vs systemic impacts Local vs global impacts Communicate analyses of dietary systems in a variety of forms, such as: Oral Written Visual	Describe how food production alters processes of nutrient cycling Evaluate ways to alleviate the environmental degradation that can be caused by food production, including: Conducting statistical analysis in R Interpreting statistical results Explain why different dietary choices vary in ecological impact using: Food webs Trophic structure Ecosystem energetics (efficiencies)	Identify the major actors influencing food politics around the world Understand the different ethical and philosophical positions that inform sustainable food systems Describe and critique different political regulations of food systems Assess the reasons for inaction on implementing more sustainable food systems Create new ways to understand and respond to the challenges of developing sustainable food systems
Integrate perspectives from at least two disciplines into analyses of sustainability to demonstrate the complex, multidimensional, and interdisciplinary nature of sustainability issues	Evaluate recommendations for responsible food choices from multiple disciplines		
Reflect on how knowledge of sustainability issues can shape lifestyle choices / how people live their daily lives	Justify personal decisions about food choices using evidence from multiple sources		

Outcomes align to similar & common assessments

Digital products

Using what you have learned so far in this class, create a one-page infographic to evaluate one of these claims:

1. A strictly organic diet is the most sustainable.
2. Buying and eating only locally produced food is the most sustainable.
3. A vegan diet is the most sustainable.
4. A vegetarian diet is the most sustainable.
5. Eating unprocessed foods is the most sustainable.
6. Living in an industrialized country provides the most sustainable food options.

Students in Principles of Ecology focus on environmental impact, while those in Global Environmental Politics consider the impact of political institutions.

End-of-module reflection

Revisit your dietary choices that you identified prior to learning about food sustainability in the course. Reflect upon those dietary choices, and evaluate the extent to which they are sustainable using what you have learned in this course and information provided by students from another discipline. Given what you have learned in this course and from the work of students outside this course, do you want to change your diet? To what extent do you feel that you are able to change your diet? If you do want to make different dietary choices now, explain how likely it is that will make those changes. If you refer to the work of others (including other students), please be sure to cite it appropriately using the conventions of our discipline.

What's next?

Curate student products & course materials

OPEN Textbooks | SUNY | OER services
DIGITAL COMMONS OF SUNY

Fall 2018 workshop to introduce curriculum

Recruit faculty to develop materials

Curriculum Assessment

References and Acknowledgements

Inspiration and support for providing alternative pathways to traditional, program-bound sustainability education

1. Rogers, M., Pfaff, T., Hamilton, J. and Erkan, A., 2015. Using sustainability themes and multidisciplinary approaches to enhance STEM education. International Journal of Sustainability in Higher Education, 16: 523-536. Our curriculum expands on the structure of this project to add social sciences and humanities.
2. Marian Brown (Wells College), organizer of the Finger Lakes Project. We learned about infusing sustainability into curricula at the 2017 workshop.
3. Finger Lakes Project Mini-grant Program and SUNY Innovative Instructional Technologiy Grant (IITG). Funding for the pilot courses and upcoming workshop/recruitment of additional faculty, respectively.