OER in Sustainability: A Flexible and Adaptable Learning Experience

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OER For Sustainability

A Flexible and Adaptable Learning Experience
Northeast Regional OER Summit: 2018

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Principles of Sustainability Course

Facilitates deeper student exploration of complex interrelationships among contemporary environmental, social, and economic problems and the solutions to overcome them.

Helps students articulate personal philosophies to guide more sustainable lifestyles (i.e. choices for resource use and other behaviors).
Key Learning Outcomes

- **Connecting:** concepts of sustainability to issues of social justice, the environment, and the economy at local, regional, and global levels

- **Applying knowledge:** how does sustainability relate to one’s life and values; how do individual actions impact issues of sustainability?

- **Investigating:** environmental worldviews, politics and economics

- **Communicating:** using appropriate verbal and writing skills to communicate details of the scientific method including hypotheses, results and analyses
Why OER?

Access
- Lower cost
- Available online
- Instant access
- Equal access
- Perpetual access

Editorial Flexibility
- Updatable
- Customizable
- Flexible Formats

Student Success
A scientifically valid framework for guiding educational practice that:

- provides flexibility in the ways information is presented and how students respond
- reduces barriers in instruction
- provides appropriate accommodations, supports, and challenges
- maintains high achievement expectations for all students
UDL is a best practice for every classroom, because every class includes students with diverse learning needs.

Examples:

- Students who are interested vs. disinterested
- Students who are extroverts vs. introverts
- Students who are visual vs. auditory learners
- Students who feel as though they belong in college vs. students who do not
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**Representing:** Presenting information and course content in multiple formats so that all students can access it:

- Lectures
- PowerPoints
- Videos
- Guest speakers
- In-class exercises
- Reading from various sources, (e.g., textbooks, scholarly articles, “in the news”, student writing, etc.)
UDL, OER + panOpen

**Action and Expression**: Allowing students alternatives to express or demonstrate their learning.

- **Summative assessment**: essays, worksheets, discussion boards, quizzes, exams, group and individual presentations, debates, etc.

- **Formative assessment**: matching, fill in the blank, multiple choice, sequence, order list, categorize, classification, etc.
Working with panOpen

- **Created**: Chapter Outlines
- **Revised**: Learning Objectives
- **Sourced**: Videos (with framing questions/description)
- **Designed**: Interactive Formative Assessments
- **Created**: APPLY IT! Assignments, with AAC&U Rubrics
- **Designed**: End of Chapter Quizzes
- **Created**: Objective-aligned Teaching Slides
- **Added**: Essential Questions
- **Created**: Test Banks
- **Designed**: Student Study Guides (including: chapter reviews, "explore and apply" questions, practice essay questions, and flashcards)
Principles of Sustainability: Videos

Video

What is Sustainability?
What is sustainability? Turns out defining sustainability is actually difficult. Figure out what sustainability actually is, how we achieve it, and why it matters - with the help of Hank Green!

Before watching the video answer these questions.

- How would you define sustainability?
- What are the essential needs of humans beings?
- Will a complete ban of fossil fuels support sustainability?

After watching the video consider these questions.

- After watching the video, did your definition of sustainability change?
- What is the difference between micro- and macro-sustainability?
- Is sustainability even possible?
Principles of Sustainability: Formative Assessments
Principles of Sustainability: Summative Assessments
Next Phase of OER: Open Collaboration

Principles of Sustainability
“I love both the interaction with peers and the professor as well as the individual work in this course. The video questions felt just as interactive as the discussions, and the videos themselves are always very interesting. The online textbook was a clever way to introduce us to sustainability by not buying a massive paper textbook, and instead using one online. It also made navigation of the textbook much easier. This class has a layout where I am learning a lot without the stress of reading and studying 50 pages of notes.”

“The topics covered by the textbook covered a wide range of information relating to sustainability.”

“I enjoyed watching the videos to answer questions. They were very interesting and I benefited a lot from them.”
Thank You

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