Assessing the State of Sustainability Education: A Case Study of Faculty Efforts at the University of Nevada, Reno

Jennifer Huntleysmith
Academy for the Environment
Donica Mensing
School of Journalism
Hans-Peter Plag
Nevada Bureau of Mines and Geology
John Sagebiel
Environmental Health and Safety
University of Nevada, Reno
Abstract

The University of Nevada, Reno established a Sustainability Committee in 2008, one goal of which is to strengthen the focus of the undergraduate curriculum on sustainability. In the process of implementing this goal, a faculty working group has discussed and come to agreement on several critical issues, including definitions, participation, methods, and culture. Discussion also led to recognition of a spatial component of sustainable development, in addition to the often referred to temporal component, and addressed the implicit ethical obligations that arise in considering these aspects of sustainability. Participation in the working group has been guided by the desire to be as cross-disciplinary as possible, explicitly including faculty from every college, on the understanding that sustainability naturally concerns almost all disciplines and areas of study. The initial method chosen by the committee to collect data is a survey of both faculty and undergraduate students, to develop a baseline on which to assess the current coverage of sustainability issues by the undergraduate curriculum. A secondary goal is to assess and compare the strength and direction of personal attitudes about sustainability issues. Discussions have also stressed the need for developing a culture on campus that values sustainability as a practice and subject of inquiry. Efforts to address cultural, administrative, attitudinal, and practical barriers to improved teaching on these issues will also be discussed.
Assessing the State of Sustainability Education: A Case Study of Faculty Efforts at the University of Nevada, Reno

- UNR's Sustainability Committee
- The Working Group on Curriculum
- Survey of Undergraduate Teaching
- Main Survey Results
- Key Points and Conclusions
- Points of Discussion
UNR's Sustainability Committee

Established in 2008 in order to support implementations of steps towards sustainability and the reporting duties within the ACUPCC

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<td>VPAF</td>
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<td>Stephanie Woolf</td>
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<td>External</td>
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*Mike Collopy*

*John Sagebiel*

*Duane Sikorski*
Working Group on Curriculum

Charge: provide a chapter for the report:
- survey extent to which sustainability issues are covered in (under)graduate teaching;
- identify gaps and recommend extensions;
- identify obstacles and required support;
- draft a policy and recommend specific steps.
## Working Group on Curriculum

17 members from 14 Colleges and/or Department:

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<tr>
<td>Michael Collopy</td>
<td>Academy of the Environment</td>
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<td>David Crowther</td>
<td>Curriculum, Teaching, &amp; Learning</td>
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<td>Jeffrey Englin</td>
<td>Resource Economy</td>
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<td>Guy A Hoelzer</td>
<td>Biology</td>
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<td>Jen Huntley-Smith</td>
<td>Academy for the Environment</td>
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<td>Mary E Hylton</td>
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<td>Stephen K Lafer</td>
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<td>Donica Mensing</td>
<td>School of Journalism</td>
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<tr>
<td>Paul Neill</td>
<td>Core Curriculum Office</td>
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<td>Thomas J Nickles</td>
<td>Department of Philosophy</td>
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<td>Christopher Simon</td>
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<td>Scott Slovic</td>
<td>English</td>
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<td>Julie Stoughton</td>
<td>Natural Resources and Environmental Sciences</td>
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<td>James A Sundali</td>
<td>Managerial Sciences</td>
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<td>Mark Waldo</td>
<td>English</td>
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Survey Goals and Objectives:

- Faculty's intrinsic motivation:
  - relevance of sustainability for themselves;
  - interest in teaching sustainability.
- Faculty's practice:
  - teaching towards sustainability or not?
- Faculty's concerns:
  - obstacles, faculty perception of students' priorities.

Aim: collect some baseline data
Introduction to the Survey Objectives

For our purposes in the following survey - and in the larger report to which the results of this survey will contribute - we would like to suggest that “sustainability curriculum” is any aspect of university teaching that helps to raise students’ awareness and understanding of the processes by which “our common future” might be enhanced by focusing on the so-called “triple bottom line” of economy, environment, and society. In particular, we are interested in determining the extent to which the current curriculum at UNR explicitly emphasizes the intersections between economic, environmental, and social issues in the context of sustainability, using qualitative and/or quantitative metrics for describing and evaluating the implications of these intersections.
Practical issues:
- no distinct list of people teaching undergraduate courses
- compromise: invited academic faculty and LOAs, excluded administrative faculty;
- in total 1433 invited.
- responses: 223, 15%
- no information on why people did not respond:
  - not involved in teaching,
  - not interested in sustainability
- Many respondents took considerable effort to write comments indicating a strong interest in the subject.
Over 65% rated their concern a 4 or 5
Very few consider sustainability an unimportant issue
Main Results (2)

- Almost normal distribution
- This is the faculty's perception;
- Students will be surveyed with this question.
- 11% have courses with sustainability as main topic
- Listed courses range from sciences, engineering, anthropology, literature, policy, health, drama, archaeology.
Main Results (4)

In courses that do not have sustainability as the main topic, do you integrate explicit references to sustainability issues? (223 Responses)

- 45% of respondents do include sustainability.
- Comments indicate a wide range of topics in economic, social, and environmental domains.
Would you be interested in focusing current courses on sustainability or developing new courses?
(223 Responses)
Main Results (6)

Is there a disconnect of personal concern and focus in teaching?

Should this disconnect exist to avoid a “personnel agenda” in teaching?
Main Results (7)

- Question: What would help/support you in developing new courses or modifying existing courses to have a stronger focus on sustainability issues?

- 89 Responses, many very interesting comments.

Some examples:
- Attend a workshop where people share models of how they integrate the subjects into their courses. (multiple)
- Time, money & change in teaching assignment. (multiple)
- A push to offer such courses from above, ie. administrative/dean level. Programs on campus which reflect these desires, such as incentive programs to force people/faculty/students to drive less, for example.
- Guidelines reference materials guest speakers (multiple)
- Simpler paperwork and more rapid approval of course and curriculum changes. Easier approval of core courses, especially capstone courses.
- Readings and discussion with peers.
- Definition of priorities of sustainability by NSHE and our state employment partners!
Main Results (8)

What would you consider to be appropriate ways of integrating sustainability issues in your teaching? (181 Responses)

- Modified contents of the lectures (131 responses, 72.38%)
- Extra credits projects (52 responses, 28.73%)
- Additional reading (93 responses, 51.38%)
- Topics for student papers addressing sustainability (105 responses, 58.01%)
- Others, please specify (20 responses, 11.05%)

Most consider modified lectures, additional reading and student papers as appropriate (more than one choice available).
Main Results (9)

Main concerns are:
1) not sure how to integrate sustainability; and
2) sustainability issues are not relevant.
Key Points and Conclusions

- Was a baseline survey which leave many questions open and raises new ones.
- Faculty who responded thinks that sustainability is an important issue
- There seems to be a gap between faculty's concern about sustainability and focus on sustainability in teaching.
- But in the absence of a coordinated focus on sustainability in the curriculum, almost half of the respondents address sustainability issues in their teaching and expressed interest in doing more.
- Respondents indicate interest in developing assignments to teach sustainability issues.
- Faculty don't know how to integrate sustainability issues in their courses or think that they are not relevant to their teaching.
- Comments indicate many other reasons, including lack of time, money, not being tenured, institutional support, ...
Points of Discussion

- Survey has value in sparking discussions
- Sustainability across the curriculum is our priority
- Deeply multidisciplinary, integrative
- Skills and perceptions for sustainability in teaching
- Enabling informed decision makers versus guiding students in the 'right' direction
- Hidden/shadow curriculum both for faculty and students

All is work in progress, but a lot of fun ...