Trends in climate change education in Nevada's system of higher education

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Introduction

The teaching of climate change is a relatively new phenomenon in higher education. Since the issue of climate change first entered the public stage, professors have taught their students about it in a very ad hoc way. There has been little discussion of structure or standards involved with the teaching of this subject, until very recently. This haphazard nature of climate change education matched with the vital importance of the issue to our society has sparked many questions about the trends and nature of climate change education. Perhaps most importantly, the question of how students’ ideas of climate change are formed by their exposure to the topic in the curriculum of higher education.

- In what ways are students exposed to this issue?
- Where else does the topic show up throughout a student’s education?

These questions were tackled by looking at Nevada’s system of higher education. The information will help form a picture of how Nevada's students are learning about climate change. This big picture will be used later to indicate areas where new courses are needed or where improvement to existing courses is desired.

Methods

In order to get an idea of where students learn about climate change in the Nevada System of Higher Education, an inventory was created. Any class that at all references climate change was included in this inventory—not just courses directly about the subject. This wide criteria did introduce subjective selection into the research methodology however such was necessary in order to reach nontraditional disciplines and instructors.

The data for the inventory was gathered over the course of three months from four main sources:
- Department Chairs at all seven institutions were asked to submit lists that fit the criteria;
- Course Catalogues at all seven institutions were reviewed; and
- Class Schedules for up to the previous three semesters were examined.

Many factors have prohibited this inventory from being absolutely comprehensive. This research does not claim to account for every reference to the topic in any class. However the inventory is robust enough to make claims about the trends in the teaching of climate change.

In what ways are students in Nevada exposed to the issue of climate change?

- Is it simply through the limited enrollment in specific climate change courses?
- Where else does the topic show up throughout a student’s education?

Initial Results and Discussion

This inventory reflects the wide diversity of avenues in which students are exposed to the issue.

- Climate change is not only a topic found in geology courses, but in addition to the obvious disciplines, including geography, geology and environmental studies, climate change was touched on in a number of other, including architecture, political science, and even philosophy and English.
- In total, climate change information was found to be shared in courses spanning 13 disciplines.

This range of disciplines suggests that the wide impact of climate change on society is being mirrored in the way it is taught throughout Nevada’s system of higher education.

The inventory of courses however also suggests that there is a disparity between how larger research universities teach climate change and how smaller community colleges address this issue.

- The University of Nevada, Reno and the University of Nevada, Las Vegas, both research institutions were home to over 65% of all courses touching on climate change. UNR and UNLV had 52 and 35 courses respectively.
- Western Nevada College however only had five courses.
- The institution with the largest number of enrolled students is the College of Southern Nevada, however CSN only offers 6% of all course on climate change in Nevada. This suggests that a large number of students may be missing out on this education.

More than anything, this disparity reflects the size of the institutions however it begins to suggest that in Nevada, climate change is a topic that is taught more in the urban centers and less in the rural areas of the state. At small institutions with smaller numbers of courses, climate change slips through the cracks, while at institutions with larger course selections, climate change appears more readily.

Next Steps

This research will inform the creation of new climate change courses to be taught in Nevada. By understanding the current state of climate change education, improvements can be made. A conference scheduled for May 2010 with Nevada educators will conclude on the need for such changes and direct funding to achieve them. This early research will help illustrate the current trends in climate change education and help educators identify where changes should be made.

- Where exactly should this topic show up in higher education curriculum?
- And what specifically about climate change should be taught?
- Are there topics within climate change that should be the focus?

This research fits in with a larger assessment of how climate change is being taught around the country. Are all courses, specifically about climate change, teaching the same things? This variability in curriculum content does not plague many disciplines, but the scientific and political milieu around climate change makes it an important consideration.