

Teaching Sustainability and Professional Ethics: Production and Values in and Outside the Work Place

William Mass
Dept. of Regional Economic and Social Development
University of Massachusetts- Lowell
William_Mass@uml.edu

ABSTRACT

A course designed primarily for computer science and engineering undergraduates and taught at UMass Lowell, provides an introduction both to concepts of sustainability and to ethical professional practices. Sustainability is presented as including approaches that emphasize ecological principles and their integration with community and economic development. Ethical decision making is approached as a design challenge rather than as a search for the correct solution to a problem. Students enrolled are also from a broad range of other programs and colleges, and they add differing perspectives while they are a minority of those enrolled. The course requires seven short papers as learning exercises and take home midterm and final. All written work requires the students to follow guidelines but choose their own topic to illustrate or respond to the concepts introduced by assigned readings. In addition, one assignment requires students to interview an individual with at least ten years experience of professional practice about their familiarity and training with professional codes of ethics, and their responses to the most common and most distressing professional ethical challenges. The course makes demands of most students that are not typical of their other courses. It requires more writing and personal reflection, and it is structured to foster seminar discussion, especially on the class days when assignments are due, and through in-class small group exercises.

A structured response requiring students assess aspects of the course has provided feedback that has significantly changed assignments and the style of teaching over the six semesters this course has been offered. First, by design, student assignments in prior years identify and evaluate materials new to the instructor through required internet searches. Some of these materials have been incorporated into subsequent course ware. Second, students' expressed interests led the instructor to conduct the last six classes around mutually negotiated topics selected from student suggestions. Student suggestions have been clearly influenced by current news and controversies as the three topics selected have changed each semester. The topics have included "Taxes and Trade Deficits", "BioTechnology: Pros and Cons", "Intellectual Property and the Internet", "Enron", "Genetically Modified Foods", "Oil and Terror", "National Environmental Policies", "Green Chemistry", "Renewable Energy" and "The Iraq War and International Security". In addition, student responses in class discussions and through written responses have dramatically shifted the balance of materials presented to include significantly more material on alternative approaches and "better to best practices", and less attention to direct criticism and review of "unsustainable" policies and behavior. As a summary of the experiences of mutual teacher and student learning, the reasons for changes in course content and format will be reviewed in terms of the composition of

students enrolled, dynamics internal to the classroom experience, and external events. However, student recommendations for further utilization of the internet to enhance course resources through cumulative student contributions have failed to be implemented thus far due to instructor limitations. Finally, end of term student reflections of the value of this course's approach to learning about sustainability and professional ethics separately and in combination will be reviewed.