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Mark W. Brunson
Department of Forest Resources, Utah State University, Logan

Claudia L. Anderson
Department of Forest Resources, Utah State University, Logan

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TWO BIRDS, ONE STONE: CAN A NATURAL RESOURCES “CORE” CLASS SERVE THE ENTIRE UNIVERSITY?

Mark W. Brunson¹ and Claudia L. Anderson²

¹Associate Professor, Department of Forest Resources, Utah State University, Logan, UT 84322-5215. E-mail: brunsonm@cnr.usu.edu
²Undergraduate Research Assistant, Department of Forest Resources, Utah State University, Logan, UT 84322-5215

ABSTRACT: As natural resource management grows more complex, natural resource curricula continually must expand to incorporate new topics and techniques. At the same time, colleges and departments are pressured to keep within tight budgets, and to meet the demands of students, parents and legislators to minimize the length of time needed to acquire a degree. In the College of Natural Resources (CNR) at Utah State University (USU), one strategy for achieving these apparently conflicting needs has been to create “core” courses that can serve students in all CNR majors, thereby reducing the potential for overlap and redundancy. When the university
switched in 1998 from a quarter to a semester calendar, the college was challenged to maintain a core while reducing the number of required credits, continuing to meet professional accreditation standards, and participating in an expanded university-wide general education program. One way we tried to meet that challenge was to develop a new core course called “Natural Resources and Society” that would simultaneously: (1) meet the core goal of introducing majors to the human dimensions of natural resources; (2) meet the general education goal of providing a broad introduction to the ideas and methods of the social sciences; (3) attract large numbers of non-CNR students (important because some university funding is tied to student credit hours); and (4) recruit students into the university’s lowest-enrollment college. This paper describes our evaluation of the course’s success at meeting those objectives.

“Natural Resources and Society” introduces students to some of the concepts and methods of sociology, psychology, anthropology, and political science; traces society/nature relationships in North America from prehistory to the present day; and offers an introduction to the human dimensions of natural resources from a variety of disciplinary perspectives. (For example, psychology provides insights on why scenic quality is important; sociology can explain how social institutions evolve in response to the needs of natural resource occupations; and so on.) Enrollments have grown from an initial 92 students in Fall 1998 to 258 in Fall 2001, including 62 CNR majors, 30 non-majors who wanted a course focusing on the relationships between nature and society, and 166 students who wanted a required general-education social science class at a convenient time of day. The course is taught primarily in a large lecture format; requires students to complete three multiple-choice exams, several writing assignments, and a group project; and is supported by a teaching assistant and a course Web site. About five students per term are recruited into CNR majors—not insignificant in a college with slightly more than 300 undergraduates. The university provost’s office has praised the course as a model for how concepts from multiple disciplines can be integrated into a single lower-division course by means of a common theme.

To evaluate success we re-entered data from the standard university course evaluation forms completed in Fall 2000 (N=155) into the SPSS statistical package. We performed chi-square analyses to test for significant differences between CNR majors (39% of respondents) and non-majors, and between freshman (42% of respondents) and upperclassmen. We also coded student comments using qualitative social science methods.

Mean course and teacher evaluations were at or slightly above the university’s general education median. However, mean overall course evaluations by majors were 0.8 higher (on a 6-point scale) than those given by non-majors. Overall instructor effectiveness ratings were 0.7 higher by majors. Both findings are significant at the $p<.001$ level. Overall course evaluations were 0.7 higher from upperclassmen than from freshmen, and overall instructor evaluations were 0.6 higher for upperclassmen than from freshmen (both $p<.001$). No correlation was found between evaluation scores and anticipated course grade or cumulative grade-point average. Freshmen respondents were significantly more likely to be non-majors.

Qualitative evaluation of comments found that the best-liked features of the course were the Web site (especially online availability of class notes) and the instructor’s enthusiasm and apparent knowledge of the topic. The most frequent criticism of course content by non-majors was that there was too much natural resources and not enough social systems and issues; the most frequent criticism of content by majors was that there was not enough natural resource management and too much social science. Criticisms by freshmen and non-majors of the course’s delivery were most frequently about the readings, which they found irrelevant to their interests and difficult to understand. Majors’ criticisms of course delivery were most often about the group project: They found it hard to contact other members, and felt they had to shoulder a disproportionate share of the workload. Majors also criticized the large class size, which is highly atypical for CNR courses.

We conclude that CNR majors who enroll in “Natural Resources and Society” are getting a better course than non-majors. However, the need to serve non-major freshmen probably holds back majors, while freshmen may not be ready to cope with the high levels of ambiguity of some concepts. Non-majors probably would be better served by a more wide-ranging theme than natural resources. The instructor feels he is not well served because the evaluations are considerably lower than he is used to seeing.
So is the experiment a success? It depends on one’s perspective. The course succeeds for the university because it offers thematic integration of key subjects in a class that gets acceptable evaluations. It succeeds for the College of Natural Resources because it generates student credit hours, recruits a few students each term, and has provided a way for CNR students to achieve general education and core goals in one 3-credit class. However, the teaching and learning experiences are likely to be better if the courses were separated; which is precisely what will happen—not because the experiment is judged a failure, but because the provost’s office has decided to discourage “double-counting” classes as general education and major courses because it violates the spirit of the general education program. As a result, “Natural Resources and Society” is being redesigned for majors only. It is not yet known (as of Spring 2002) whether the college will be able to continue participating in the university’s general education program to the same extent as before.