

Integration of Ethics into a Forestry Curriculum

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Abstract

Following a comprehensive review of their forestry curriculum in 1995, the Oklahoma State University Forestry Faculty elected to modify the way professional ethics are formally addressed. The modifications involve three courses. An introduction of ethics and their role in natural resource management is presented to freshman in an introductory course. This provides a framework for learning and applying the science and practices of the Forestry Profession in the context of an ethical philosophy. Students address ethics a second time between their sophomore and junior years. This happens during the initial summer camp course where students are exposed to philosophical and policy differences between natural resource management agencies. Ethics are formally reintroduced in two senior courses that are usually taken concurrently. One of these courses is a capstone experience where students address real natural resource management problems. The second is a course in forest administration and natural resource policy. In these two courses the instructors cooperate to require the students to consider professional ethics in a philosophical framework for decision making as well as an applied standard for real decisions in the execution of professional work. This is accomplished through discussions of the Ethical Canons of the Society of American Foresters in the forest administration and policy course. These discussions are followed by group presentations to the class of ethical considerations associated with projects from the student's capstone experience.

Introduction

Inclusion of ethics in forestry curricula in the United States has been one of the formal requirements for accreditation by the Society of American Foresters since 1986. At Oklahoma State University formalized introduction and discussion of professional ethics have been an element of the Forestry Curriculum since its inception in 1946. As is the case for many forestry curricula, ethics was an element of a required course in forest administration at Oklahoma State

University. Initially this course was taught by the first Department Head, Glen Durrell. Since the 1980's the designated course for ethics instruction in forestry at Oklahoma State University has been the senior-level course "Forest Administration and Policy" (FOR 4443).

In 1995, in response to the discussion of ethics in the Forestry Profession, the Forestry Faculty at Oklahoma State University decided to examine how professional ethics was taught in their curriculum (Argow et al. 1995, Coufal and Spuches 1995, Dickerson 1995, Force 1995, Irland 1995, Anon. 1995, Smyth 1995). This examination resulted in a decision to make instruction in the elements of professional ethics a topic that is addressed at multiple points and from varying perspectives across the curriculum. To accomplish this, professional ethics is introduced in a forestry course (History and Issues of Forest Policy - FOR 1211) dealing with American history and issues of natural resource policy that is required for entering freshmen. Professional ethics is formally addressed a second time between the students sophomore and junior years during the summer camp curriculum. The students final exposure to professional ethics is in an administration and policy course that students take their last spring semester prior to graduation.

Introduction to Professional Ethics

The concept of ethics is introduced to freshman forestry students in an introductory course (History and Issues of Forest Policy - FOR 1211) that takes a historic approach to exploring forest policy. The course presents an overview of forestry and forest resource policy development in the United States and an analysis of how policy influences the administration and management of forests and related natural resources. Further, it reviews the evolution of America's natural resource ideology, presenting related philosophical and social influences and underpinnings. The interrelationship between policy and ethics is examined in the context of the role and function of each for a diverse society with a broad array of often conflicting ideas, perceptions, objectives, and demands. Students are introduced to the Code of Ethics of the Society of American Foresters during the course (Anon. 1995). The Code of Ethics is used as a foundation for investigating several current issues facing the profession of forestry and society regarding the ways we utilize our nation's forest resources. The learning experience

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unfolds through a combination of lecture, class discussion, and student presentations.

Professional Ethics at Summer Camp

Professional ethics emerges in the curriculum a second time as students begin their upper division sequence of required courses at the Oklahoma State Forestry Summer Camp. The field-based setting and immersion structure of the Forestry Summer Camp program provide an opportunity for students to examine ethics in forestry and natural resource management from an experiential perspective. The elements, objectives and format of the summer camp experience were presented at the 1996 Biennial Conference on University Education in Natural Resources (Kuzmic et al. 1996). During the initial summer camp course, "Multiple Use and Values of Forest Resources" (FOR 3001), students explore the diversity of natural resource agencies and activities in the summer camp region. The emphasis is on integrating biological, political, and social perspectives and on understanding multiple-use and multiple value concepts in resource management. The course includes an exploration of issues and ethics related to managing natural resource ecosystems. This exploration is conducted through visitation with resource managers that includes discussion and observation of management activities. Assigned readings for the students include several essays by Aldo Leopold (1966), and articles that focus on the philosophical basis and application of ethics in natural resource management and use (Gobster 1995, Wood 1995). Each student is required to keep a journal of all academic activities during the week-long course. Students are encouraged to include details on philosophies, policies, objectives, and strategies related to resource management, and to examine ethical issues that emerge in the process. In their final assignment, students are asked to articulate their personal natural resource ethic in their journals. Recognizing that ethics evolve with individuals, students are encouraged to think of their journal entries as written documentation of an ethical foundation that will be molded, altered and re-examined throughout their careers.

Professional Ethics in "Forest Administration and Policy" (FOR 4443)

In the "Forest Administration and Policy" course (FOR 4443), the discussion of professional ethics focuses on the Code of Ethics for Members of the Society of American Foresters (Anon. 1996a). The "Ethics Guide for Foresters and Other Natural Resource Professionals" has been and is currently used as the study guide for round-table discussions of the Canons (Anon. 1996b). Following an introduction to and review of the Canons in a single class period, additional classes are devoted to the examination of

ethics questions and situations that have been developed in the "Guide" and ethics scenarios that are available elsewhere. Smyth (1996) provides an excellent review of the development of ethics within the profession of forestry.

Following class periods that focus on the Canons of the Code of Ethics. "Forest Administration and Policy" (FOR 4443) students are introduced to the Society of American Foresters "Briefings on Forest Issues" (Anon. 1997). While the issues briefings are not necessarily designed to stimulate ethics discussions, individual "Briefings" do provide an excellent basis for broad ethics discussions well beyond the Code. It is not necessary to elaborate on any specific discussion topics. A listing of a few "Briefings" titles clearly demonstrate the possibilities for ethics discussions. These include, Biological Diversity of Forest Ecosystems, Endangered Species Act, The Management of Natural Resources in the Face of an Increasing Human Population, Private Property Rights, and Public Regulation of Private Forest Practices.

By design, students enrolled in "Forest Administration and Policy" (FOR 4443) are concurrently enrolled in the senior-level capstone course, "Forest Resource Management: Planning and Decision Making" (FOR 4333). Concurrent enrollment was originally unrelated to any specific planned interaction between the two courses. The opportunities for cooperation developed through time, experience, and many formal and informal conversations among the faculty.

Capstone courses have received considerable attention among forestry academicians recently and Oklahoma State University's forestry capstone was reviewed at the 1994 conference "Education for Forest Resources: New Directions for the 21st Century" (Lewis 1994). Briefly, the capstone experience is a problems course in which student teams define, analyze, develop, and present alternative approaches and solutions to actual natural resource problems and opportunities. The problems and opportunities are referred to as projects. Teams are responsible to actual clients for their projects and often the clients are the owners of the resource.

While the capstone course is directed by one faculty member, the entire Forestry Faculty have ownership in the course and participate in its delivery in several significant ways. The first level of faculty participation is through a review of presentations by capstone students in which each team of students describe and define their project and the process they will use to arrive at alternative solutions. Other students and faculty, in the class, provide feedback to the presenting team to aid them in problem definition, identification of resources necessary to complete their project, and presentation content and style. As faculty

reviewed and discussed capstone projects and student presentations, it became apparent that professional ethics was often an issue in capstone projects. Student teams needed additional guidance in the area of ethics to conduct project work, interact with clients and other professionals, and eventually develop project plans for their clients.

Beginning in 1994 the discussion of professional ethics, specifically the Code of Ethics, in "Forest Administration and Policy" (FOR 4443) was scheduled to follow the initial presentations by student teams in the forestry capstone course. Each student team was then asked to develop a panel discussion for the rest of the class on the ethical considerations of their capstone project. Students were instructed, when appropriate, to relate project concerns to specific Canons of the Code of Ethics. This approach to discussing ethics was successful and well accepted by the students and was formally implemented as an element of the curriculum in 1995.

Two examples of the ethical issues identified by students in the conduct of their capstone projects (FOR 4333) and presented for class discussion in the "Forest Administration and Policy" (FOR 4443) course are described to illustrate how this approach works. The first example involves a project to prepare a management plan for a "conservation education reserve" administered by a two-year college in eastern Oklahoma (Hills et al. Report from FOR 4333, 1994). In this case there was an adjacent landowner who the students believed was responsible for the release of substantial amounts of nutrients and pesticides into a stream that ran through the reserve. The students' concerns focused on their responsibilities to the forestry profession and their client regarding their perception of the actions of a neighbor. The class discussion focused on these responsibilities until the instructor identified the need for professional foresters to base accusations on documented facts and well-established principles [Canon 4 (Anon. 1995)]. The instructor also used this discussion as an opportunity to introduce the responsibility to perform the services requested by an employer and to avoid straying into topics beyond the scope of assigned responsibilities [Canon 5 (ANON. 1995)].

The second example involves a team of students who were preparing a revision to the management plan for a Boy Scout Reservation in west central Arkansas (Callan et al. Report from FOR 4333, 1992). In this case, as the students were reviewing the objectives of forest management with the Boy Scout Council Camp Committee, the discussion focused on the age at which the stands should be harvested. Some members of the Camp Committee expressed an interest in extending the age of harvest to an age that would have created habitats for the red-cockaded woodpecker (*Picoides borealis* Vieillot). The students' dilemma concerned their

responsibilities regarding habitat for endangered species. The alternative that extended the harvest age to the point where red-cockaded woodpecker habitat was created had the potential to limit the capability of the Scout reservation to generate income required to support the Council's programs. However, by extending the harvest age the Boy Scout Council would be supporting a national effort to protect endangered species and their habitat. The class discussion revolved around the implications of the Second Canon, particularly the sentence: "A member's knowledge and skills will be utilized for the benefit of society." (Anon. 1995). The Fifth Canon was also part of the discussion. The consensus of the class was that the students had an ethical responsibility to inform the Camp Committee of the alternatives and their implications. Further, that the students, as professionals, did not have the authority to make decisions for the landowner.

In the final analysis an estimate of the fraction of the total "Forest Administration and Policy" (FOR 4443) class-time devoted to ethics is difficult to make. However, with the integration of ethics discussions in the two senior-level classes, the total formal commitment is in the range of from 20 to 35% of a three-semester-credit course. A seminar approach is used in teaching the "Forest Administration and Policy" (FOR 4443) class, and the wide variation in time devoted to ethics is a reflection of the interest and amount of discussion offered by students on ethics topics. In addition some capstone projects lend themselves to lively and extended debate on ethics while others are rather straightforward.

Conclusion

After deciding in 1995 to make professional ethics a topic that is addressed at multiple points and at multiple levels across the Forestry Curriculum, the Forestry Faculty is pleased with the results. The changes observed in the students appreciation for their ethical responsibilities, and the maturity and sensitivity with which they address ethical issues have convinced the Faculty that students graduating from the Oklahoma State University Forestry Program have the training necessary to handle the ethical challenges they face as professional foresters.

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