Forestry Department

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Degree Program(s) Assessed	Assessment Methods	Number of Individuals Assessed		
B.S., M.SForestry	Exit interviews with graduating students	8 seniors, 2 graduate students		
	Performance of seniors in capstone course	7 seniors enrolled		
	Faculty questionnaire for student performance in capstone course	6 faculty responding		
	Student questionnaire for seniors in Forestry 4443	11 seniors responding		
	Post summer camp retention and graduation rates	All students completing summer camp 1994 - 2002		
	Satisfaction survey of graduates (1994-1998)	80 graduates were mailed surveys		

Analysis and Findings

- (1) <u>Exit Interviews</u>: Forestry Department Head, Dr. 2003 and spring 2004 with a total of 8 graduating seniors. Two Forestry graduate students (M.S.) were interviewed in the 2003-2004 time frame. Comments received closely parallel those of previous years. Briefly, the following points were made by students relative to the forestry programs:
 - Several undergraduate students indicated that their desire to work outdoors led them to Forestry. Graduate students had a forestry-related background and wished to further their education. One senior specifically indicated a desire to work for a federal agency upon graduation, and felt he was well prepared for that role.
 - Overall, students were pleased with quality of education. Some undergraduate students expressed a lack of understanding for the purpose of general education courses.
 - In earlier years, some transfer students from two-year schools indicated an initial concern regarding acceptance into the department. Interviewees this year expressed no similar thoughts, indicating that departmental efforts to work more closely with the 2-year programs were beneficial.
 - Undergraduate students indicated that summer camp was the highlight of their academic experience. Some concern was expressed over the cost of summer camp and the fact that a summer of work was partially lost. Interviewees indicated that those concerns were more than overshadowed by the unique experiences provided.
 - All students were very complimentary of the overall program and of their major advisors.
 Both undergraduates and graduate students indicated that the educational training received was in line with their expectations.
 - Students who participated in the international forestry course were quite pleased with that experience and felt it added significantly to their education.
 - Students were pleased with advisors in developing academic and career paths.

- Several students expressed a positive perception of the curriculum options implemented in fall, 2003. At this time, approximately 50 percent of students are enrolled in options other than the traditional forest management curriculum.
- As OSU Agriculture reorganization has been on the forefront this past year, several students indicated a strong preference for the department to remain as an independent unit, without being merged into another department.
- (2) <u>Capstone Performance</u>: The Capstone course is designed to provide an opportunity to approach real-life problems with off-campus clients. Following problem analysis and preparation of results, students make formal presentations to clients.

Teamwork skills appear to be well developed and well understood by the students as they completed the semester's work. Exit interviews demonstrate that student perceptions of the capstone course are excellent.

In 2004, two teams participated in evaluating external problems. Client comments from 2004 include:

- "Good technical presentation, clear and professional."
- "Students met my objectives."
- "Could have been more thorough and imaginative."
- · "Presentation should have presented inventory data."
- "I thank the team for selecting my project."
- (3) Faculty Evaluation of Capstone Students: Following project completion and presentations by students, faculty members who attended presentations were asked to complete an evaluation questionnaire. This questionnaire was developed by the Society of American Foresters as part of that organization's efforts to better evaluate outcomes assessment. A summary of the results in 2004 indicate:
 - Students were rated highest in their ability to manage teamwork productively.
 - Students appear to understand forest community, structure and function.
 - Students demonstrated a strong ethical sense of stewardship for the environment.
 - Students were rated lowest in their ability to provide appropriate written communications. Conversely, oral communications were rated quite high.
- (4) <u>Forestry 4443 Questionnaire:</u> A total of 11 senior students in Forestry 4443 (Administration and Policy) responded to a questionnaire designed to evaluate their perceptions of the college experience. Below are listed several results of this survey.
 - Students rated themselves high in the ability to recognize and respect the rights of others.
 - Students believe they are able to make informed moral decisions with discernment.
 - Students perceive themselves as having the ability to organize and lead groups of people. They also believe they are able to effectively participate as a member of a group.
 - Students rated themselves high in the ability to communicate research findings to relevant publics. In previous years, this attribute was given a rather low rating. It is believed that additional emphasis on communications in other courses has lead to this improvement.
 - Students rated themselves lower in the ability to formulate procedures for problem solution and to use quantification skills.
- (5) Post-summer Camp Retention and Graduation: The Forestry Department tracks retention and graduation following the academic forestry summer camp that is conducted between the sophomore and junior years. Of the 10 OSU students who attended camp in 2002, 6 (60%) have graduated. Three other students are expected to graduate in summer or fall, 2004, with the remaining student on track to graduate in spring 2005. The graduation rate of students completing camp for the nine years, 1994 through 2002, is approximately 89%.

CAMP YEAR/ GRAD YEAR	94/96	95/97	96/98	97/99	98/00	99/01	00/02	01/03	02/04
Graduation Percentage	86%	91%	82%	78%	91%	91%	83%	100%	100%

(6) Satisfaction Survey (forestry graduates of 1994 to 1998): Surveys to assess the satisfaction of the 1994 to 1998 graduates with their educational training were mailed in February 1999. Approximately 35 percent of those surveyed responded. Data were summarized and analyzed in summer, 1999, with a compilation of results presented to the department's Committee on Undergraduate Education (CUE) for review and action. A copy of this summary and recommendations is available upon request.

Uses of Assessment Results

As with any activity to evaluate the quality of the educational experience, outcomes assessment must be incorporated into the overall improvement effort. As such, dramatic changes in curriculum, course content and expectations for students are not to be based solely on single-year results. Additionally, such changes should not be initiated without considerable regard to long-term trends and intended results. It has been the philosophy of this department to carefully review the results of outcomes assessment and other evaluation opportunities (SAF accreditation, etc.) over an extended time frame to assure that program modifications will lead to the desired results.

Information relative to the outcomes assessment process is submitted in written form by the Department Head to the forestry faculty for their review and consideration. The department's Committee on Undergraduate Education (CUE) also utilizes this information as a basis for possible changes in the instruction program that might be recommended. The Department Head discusses comments relative to specific courses with involved faculty as part of that individual's appraisal and development process.

Other Uses of Outcomes Assessment

- (1) The Forestry Department is involved in an intensive recruitment program. Assessment results are utilized to determine student needs and expectations for a four-year degree in forestry. The development of curriculum options implemented in 2003 and the reduction in summer camp requirements in 2002, based largely upon student inputs, are believed to have enhanced this recruitment effort.
- (2) Curriculum reviews continue as a result of the information received from exit interviews, senior questionnaires, etc. This is not exceptional as curricular matters receive regular attention in the department. As a result of students' desire for additional specialization opportunities, a curriculum review in 2002 led to the development of a proposal for four curriculum options. Those options were approved and subsequently implemented in fall, 2003.
- (3) Outcomes assessments have shown that student communication skills need to be improved. The capstone course continues to focus on oral and written communication skills both within the department and with outside clients. Several other courses include communications activities by students as part of the course requirements. Examples of such activities include presentations, written reports, leadership of discussion groups, etc.
- (4) With the implantation of the new curricular options, a thorough review of both the capstone course and internship/problem requirements has been implemented. This review is considering educational objectives, accreditation requirements and student outcome assessment results in order to outline an effective senior-level educational experience. The review and subsequent formulation of appropriate protocol is to be completed by fall, 2004.