Assessment of Professionalism and Ethics
Institutional Student Learning Outcome #3

Report to the Campus
2012-13

Prepared by

The Executive Committee of the Assessment Commission

May 2013

Table of Contents

Executive Summary

During the 2012-13 academic year, the Oregon Tech Assessment Commission conducted an assessment of professionalism and ethics. The assessment was based on three performance criteria:

Students will be able to:

1. Evaluate the ethical issues related to a problem in the discipline.
2. Demonstrate knowledge of the professional code of ethics in their discipline.
3. Demonstrate professional behavior in the academic environment.

Oregon Tech does not currently have general education requirements in professionalism or ethics, and these topics are normally covered within the major. Thus, both assessment activities focused on student work at the program level. Concerted efforts were made, however, to ensure that similar procedures and materials were used across the institution. Each of the programs that participated in this institutional assessment has also used the data for programmatic assessment and thus will work with any specific weaknesses at the program level.

Professionalism

The assessment of professionalism was based on faculty evaluations of graduating seniors in each program, using 12 professional behavioral components that were developed by the Assessment Commission and vetted broadly across the institution.

The Executive Committee found the results for all programs to be acceptable overall. Over 90% of graduating seniors met faculty expectations in all 12 criteria. The results by clustered majors revealed specific areas of strength, but no weaknesses. The committee did not identify any weaknesses requiring further action at the institutional level.

Ethics

The assessment of ethics was based on a rubric-scored ethics homework assignment in an upper division course in the major. Faculty gave students an ethics assignment that had been developed by the Assessment Commission and vetted broadly across the institution. The customized assignment included 1) questions about the code of ethics in the major and 2) a major-related, multi-dimensional ethics scenario that students analyzed using a set of questions.

The Executive Committee found the results for all programs to be acceptable overall. The results by clustered majors were also acceptable, with each group of majors scoring 80% or above in both knowledge of the professional code of ethics and analysis of the ethics scenario. The committee did not identify any specific weaknesses requiring further action at the institutional level.

Definition and performance criteria for professionalism and ethics
The Executive Committee of the Assessment Commission approved the following expectations and performance criteria for professionalism and ethics:

ISLO 3: Oregon Tech students will demonstrate an understanding of professionalism and ethical practice.

Students in training for professional life need a strong sense of professionalism and an understanding of ethical standards.

Expectation: Graduates should know and conform to the ethical and professional standards of their communities and professions. These expectations may be met through specific training in the ethics of students' profession (major courses) and through examination of human behavior in coursework outside the major.

Criteria for Assessment: Students will be able to

1. Evaluate the ethical issues related to a problem in the discipline.
2. Demonstrate knowledge of the professional code of ethics in their discipline.
3. Demonstrate professional behavior in the academic environment.

Focus of assessments
The assessment focused on evaluation of student learning at the program level since Oregon Tech does not currently have general education requirements directly related to professionalism or ethics.

Professionalism

Description of assessment
The assessment coordinators, in conjunction with program faculty, evaluated graduating seniors in each program using 12 professional behavioral components that were developed by the Assessment Commission and vetted broadly across the institution.

Data scoring
The faculty used a rating scale from "0" (does not meet faculty expectations) to "2" (exceeds faculty expectations). In cases where program faculty felt they could not rate a criterion for a certain student, the coordinator left the data cell blank.

Data collection
Score sheets from all participating programs were submitted to the Director of Assessment during the spring 2013 term and compiled for further analysis.

Data elements
The data elements collected in the professionalism assessment process included:

- Student ID
- Student last and first name
- Twelve scores, one for each professional behavioral component

Assessment results for professionalism
The Executive Committee of the Assessment Commission reviewed the overall results of this assessment.

Overall results for all programs
As described above, the faculty rated the professionalism of graduating seniors using 12 performance criteria. A broad sample of Oregon Tech programs was included in the assessment. There were 560 seniors involved. The percentage of students who met or exceeded faculty expectations for each criterion is shown in Table 1. Because faculty could leave certain data cells blank in the assessment, the percentages represent those students who were rated for a particular criterion, rather than all the students involved in the assessment.

Performance Criteria	Meets Faculty Expectations	Exceeds Faculty Expectations	Total for Meets or Exceeds Expectations
Performs work in a timely manner	41.6%	52.1%	93.7%
Performs assigned tasks according to course expectations	41.5%	53.4%	94.9%
Work products completed in a professional manner	42.6%	53.8%	96.4%
Accepts feedback appropriately	34.6%	60.9%	95.5%
Accepts and carries out tasks with positive attitude	37.2%	59.2%	96.4%
Arrives on time or gives appropriate notification	36.4%	59.8%	96.2%
Attends classes/ meetings or gives appropriate notification	34.4%	61.2%	95.6%
Follows Oregon Tech Student Conduct Code	43.7%	54.3%	98%
Interacts appropriately with others	36.3%	59.5%	95.8%
Follows classroom policies and procedures	45.3%	52.8%	98.2%
Demonstrates effort and hard work	31.9%	63.2%	95.1%
Appropriate professional appearance	36.9%	62.1%	99%

Table 1. Percentage of seniors who met or exceeded faculty expectations, all programs

In the opinion of the Executive Committee, these results were acceptable overall. They also noted that:

- Ratings were higher than the spring 2010 assessment in all categories. These results are not surprising due to the fact that many Oregon Tech programs have placed a greater emphasis on the development of professional skills in recent years. In addition, many students are working professionals who have returned to complete their education or are in programs which require professional experience through internships or externships. The 2012 National Survey of Student Engagement (NSSE) results verify this, with 25% of Oregon Tech seniors reported working off campus 30+ hours per week.
- One of the greatest strengths of this assessment is the discussion generated within departments regarding the various aspects of professionalism as well as clarifying expectations. Though the assessment instructions ask assessment coordinators to schedule a meeting with program faculty to complete the rating as a group, a few programs rated as individuals and then averaged their scores. It is recommended that the next time this assessment is administered, the process of rating as a group is emphasized.
- While there are no apparent weaknesses at the institutional level, discussions amongst program faculty led to potential programmatic actions. For example, one program reported, "We need to make a conscious effort to hold students accountable to professional standards." A department discussed strategically adding professionalism topics to various required courses spread throughout the curriculum. Another program plans to add team activities where students are able to demonstrate professional behaviors.
- Some faculty again reported difficultly in differentiation between the ratings of "meets faculty expectations" and "exceeds faculty expectations." For example, the faculty wondered how one might rate a student as exceeding expectations for attendance or following the student conduct code. The committee discussed dropping the "exceeds faculty expectations" for all criteria in this assessment, but decided the discussion generated from this conundrum is worthwhile.

Results by major

The faculty ratings of graduating seniors were also analyzed by major. Because of small sample sizes for each major, students were clustered into four categories of majors for this analysis—arts & sciences, engineering, health, and management. The percentage of seniors, by clustered majors, who met or exceeded faculty expectations is shown in Table 2.

Performance Criteria	Arts & Sciences n=53	Engineering n=189	Health n=252	Management n=66
Performs work in a timely manner	94.3%	87.4%	98.0%	90.9%
Performs assigned tasks according to course expectations	96.2%	92.3%	99.2%	86.2%
Work products completed in a professional manner	98.1%	94.5%	98.8%	86.2%
Accepts feedback appropriately	98.1%	94.0%	96.8%	87.7%
Accepts and carries out tasks with positive attitude	92.5%	95.6%	98.8%	89.1%
Arrives on time or gives appropriate notification	100%	89.0%	99.6%	92.2%
Attends classes/ gives appropriate notification	98.1%	89.6%	99.6%	90.6%
Follows Oregon Tech Student Conduct Code	100%	97.8%	98.0%	93.8%
Interacts appropriately with others	98.1%	90.1%	98.8%	93.8%
Follows classroom policies and procedures	100%	94.9%	98.4%	93.8%
Demonstrates effort and hard work	94.3%	90.7%	99.2%	89.2%
Appropriate professional appearance	100%	97.3%	99.1%	100.0%

Table 2. Percentage of seniors who met or exceeded faculty expectations, by clustered majors

The Executive Committee found these results to be acceptable and consistent with the overall results in Table 1. It was noted that while expectations were met in all major areas, there seem to be discipline related strengths. Engineering faculty reported strengths in quality of work. Psychology students rated high in attitude toward feedback and interpersonal skills. Management students rated high in appropriate professional appearance. Based on the fact that most students in health majors are participating in externships during the senior year, it is not surprising that they rated very high in all categories. Medical Imaging students are rated on various professionally related criteria each term while in the program and must meet faculty expectations to qualify for the externship experience.

Indirect Assessment from the National Survey of Student Engagement

The committee also looked at two items from the National Survey of Student Engagement that are closely related to the professionalism criteria.

1. Oregon Tech students compare favorably to their peers at other institutions when asked how often they came to class without completing readings or assignments, the mean for first year students in 2012 was 1.78 on a 4 point scale (1=never, 2=sometimes, 3=often, 4=very often) and 1.95 for seniors.
2. Oregon Tech students report spending significantly more time preparing for class than their peers. The mean for Oregon Tech seniors in 2012 was 4.92 while comparator institutions reported a mean of 4.35; suggesting that the average Oregon Tech senior spends 16-20 hours per week preparing for class.

Ethics

Description of assessment
In an upper division course in the major, faculty gave students an ethics homework assignment (Appendix A) that had been developed by the Assessment Commission and vetted broadly across the institution. The assignment included 1) questions about the code of ethics in the major and 2) a major-related, multi-dimensional ethics scenario that students analyzed using a set of questions.

Prior to the assessment, the Director of Assessment asked each program involved to submit the ethics scenario that would be included in the homework assignment. These scenarios were reviewed to ensure that they were multi-dimensional, related to the students' major, and not overly simple or complex.

An ethics rubric (Appendix B) was provided to both students and faculty along with the assignment. This rubric was originally developed in 2009 by the Executive Committee of the Assessment Commission in conjunction with an Oregon Tech faculty member who teaches ethics. The rubric was revised in 2012 to add "demonstrates knowledge of the professional code of ethics" as a separate criterion.

Data scoring
To encourage motivation to perform well on the ethics assignment, the student work was graded and counted in the overall course grade. In addition to grading the assignments, each instructor scored the student assignments for assessment purposes using the ethics rubric and a score sheet provided by the Assessment Commission. The instructors used a proficiency scale from "1" (limited or no proficiency) to "4" (high proficiency) for each of the four performance criteria on the rubric.

Data collection
Data collection occurred during the Fall Term 2012, with a broad sample of Oregon Tech programs participating in the assessment. The aggregated data for all courses were then submitted to the Director of Institutional Research for analysis.

Data elements
The data elements collected in the ethics assessment process included:

- Student ID
- Student last and first name
- Course Reference Number (CRN)
- Subject, course, and section number (e.g., BIO 102-01)
- One score, rating the student's knowledge of the profession code of ethics (based on their interpretation of three code of ethics provisions) using the first performance criteria on the ethics rubric.
- Four scores for the ethics scenario, for performance criteria 2-5 on the ethics rubric.

In addition, the Director of Institutional Research linked the above data elements to the student's major.

Assessment results for Ethics

Overall results for all programs
The Executive Committee of the Assessment Commission reviewed the overall results of this assessment. Results for students demonstrating proficiency or high proficiency for all courses combined are shown in Table 3. There were 351 students involved in this assessment.

Performance Criteria	% Proficient	% Highly Proficient	Total % Proficient or Higher
Knowledge of professional ethics code	20.0%	71.5%	91.7%
Identifies ethical issues in scenario using code of ethics	28.5%	62.7%	91.2%
Describes parties involved and points of view	25.6%	63.2%	88.8%
Describes & analyzes alternative approaches	31.9%	54.1%	86%
Supports an approach, describing benefits & risks	26.5%	66.1%	92.6%

Table 3. Overall proficiency levels, all programs

The Executive Committee found these results to be acceptable overall. There were fewer students participating in this assessment activity than the fall 2009 assessment, but the results in all criteria are higher. The committee also noted that the majority of the students received a rating of highly proficient. This may be a result of increased emphasis over the past three years. Many programs have embedded this assignment within designated courses. The committee did not identify any specific weaknesses that require further action at the institutional level.

Results by major
Because of small sample sizes in many programs, students were clustered in four major categories for this analysis, including arts and sciences, engineering, health, and management. The percentage of students performing at proficiency or high proficiency by major is shown in Table 4.

Performance Criteria	Arts & Sciences n=10	Engineering n=115	Health n=208	Management n=14
Knowledge of professional ethics code	90.0%	87.4%	96.1%	85.7%
Identifies ethical issues in scenario using code of ethics	90.0%	87.8%	93.8%	92.9%
Describes parties involved and points of view	80.0%	86.0%	92.8%	85.7%
Describes & analyzes alternative approaches	100%	97.0%	91.3%	85.7%
Supports an approach, describing benefits & risks	100%	89.5%	98.1%	92.9%

Table 4. Proficiency by major (percentage at proficiency or high proficiency)

The committee felt that the results by major were also acceptable overall, and did not identify specific weakness requiring further action at the institutional level. As noted above, Oregon Tech does not currently have general education requirements in professionalism or ethics, and these topics are normally covered within the major. Each of the programs that participated in this institutional assessment has also used the data for programmatic assessment and thus will work with any specific weaknesses at the program level.

In addition to reviewing the results of this assessment the Executive Committee discussed several issues related to the ethics assessment process. While the ethics assignment template has wide acceptance, the following suggestions were made by the committee for implementation the next time ethics is assessed at the institutional level.

- There is wide variability in the quality of ethics scenarios selected for this assignment. It is recommended that scenarios should be developed or approved by a content area committee.
- Some programs report student lack of effort and/or participation is an issue which may affect the results of this assessment. As reported by one program, "There is a direct correlation between students who have done well on this assignment and students working hard in the class. I do not believe the outcome is necessarily

indicative of how well ethics is being covered in our courses. I believe this shows which students are willing to put work into an assignment."

- As with other assessments where student work is scored by faculty who have not been trained to use the rubric for assessment purposes, there are questions regarding inter-rater reliability. The committee recommends a sampling approach to verify the results for each program. A stronger effort should be made to provide training for all faculty members participating in the assessment who will score the student work from their program. A sample of work from each program will then be scored by an institutional committee of trained scorers (faculty from various departments) in a norming session to establish reliability.

Indirect Assessment from the National Survey of Student Engagement
The Executive Committee reviewed indirect assessment information from the 2012 National Survey of Student Engagement. The survey asked students to what extent their experience at Oregon Tech contributed to their developing a personal code of values and ethics using a four-point scale (1= very little, 2=some, 3=quite a bit, 4=very much). Seniors attributed their knowledge, skills and personal development in this area to their experience at Oregon Tech at 2.49 while their peers at other institutions (Oregon Tech Comparators who participated in the 2012 NSSE) reported gains significantly higher at 2.69.

The committee reviewed the results of the NSSE question by major noting that there may be differences in how ethics is addressed in the various programs. The results by major are included in Table 5.

	Biological Sciences n=15	Business n=32	Engineering n=174	Physical Sciences n=5	Other Professions n=158	Social Sciences n=37	Overall n=437
Very little	13%	13%	24%	0%	18%	11%	20%
Some	7%	38%	38%	20%	28%	24%	32%
Quite a bit	47%	28%	25%	40%	30%	30%	28%
Very much	33%	22%	13%	40%	24%	35%	20%

Table 5. Developing ethics, senior responses by major, 2012 NSSE

It should be noted that on the NSSE students select a major from a standard list. Oregon Tech health programs are included in "other professions," "social sciences" includes both applied psychology and communication studies, and "physical sciences" is strictly applied math majors. The NSSE results by major are in alignment with the direct assessment of ethics when viewed by major category.

The Executive Committee felt that the wording of the NSSE question including both "values" and "ethics" may result in lower ratings from students in programs that do not emphasize the development of personal values. To get a better sense of this, the committee recommends dividing this question on the 2014 Senior Exit Surveys into two parts: "personal values" and "professional code of ethics."

Assessment Reporting
The Director of Assessment, along with the Executive Committee of the Assessment Commission, will report the results of this assessment to the campus by email to the faculty list serve, by posting the final report on the assessment web site, and by a convocation presentation to the faculty.

Documentation
The Assessment Office will retain the final report and documentation of this assessment indefinitely.

Appendix A

Ethics Homework Assignment

For this assignment, please use the [program] code of ethics. The attached rubric will be used to evaluate your proficiency on this assignment.

I. List three provisions in the professional ethics code that you think are very important. For each provision, explain why you have selected it as important. Give an example of how this provision might be applied in a professional situation.

Provision 1:
   a. List provision
   b. Reason for importance and relevance to profession
   c. Applied example illustrating importance

Provision 2:
   a. List provision
   b. Reason for importance and relevance to profession
   c. Applied example illustrating importance

Provision 3:
   a. List provision
   b. Reason for importance and relevance to profession
   c. Applied example illustrating importance

II. Read the ethics scenario below, and answer the questions which follow it.

[program scenario]

1. Using your professional code of ethics, describe the ethical issue(s).

2. Describe the parties who are or should be involved in the issue(s) and discuss their point(s) of view.

3. Describe and analyze possible/alternative approaches to the issue(s).

4. Choose one of the approaches that you think is best and explain the benefits and risks.

Appendix B

Oregon Tech Ethics Rubric

Performance Criteria	Limited or No Proficiency (1)	Some Proficiency (2)	Proficiency (3)	High Proficiency (4)	Score
Demonstrates knowledge of the professional code of ethics	Identifies provisions in the professional code of ethics, but is unable to demonstrate importance or relevance to the profession.	Describes the importance of provisions, but some examples do not apply or fail to illustrate importance of the specified provision.	Describes the importance of provisions in the professional code of ethics. Examples are applicable to the specified provisions and illustrate importance.	Describes in detail the importance of provisions in the professional code of ethics and relevance to the profession. Examples are applicable to the specified provisions and illustrate importance.	
Using code of ethics, describes ethical issue(s)	Has a vague idea of what the issue is and is uncertain how the code of ethics applies.	Describes the issue(s) using concepts from code of ethics, but important elements may be missing or misunderstood.	Describes the issue(s) using basic concepts from code of ethics.	Describes the issue(s) in detail, demonstrating full understanding of relevant code of ethics provisions and how they relate to the issue(s).	
Describes parties involved and discusses their points of view	Is unsure who should be involved in the issue and/or does not reflect on their viewpoints.	Describes some of the parties and their viewpoints, but important elements are missing or misunderstood.	Describes who should be involved in the issue(s) and discusses the viewpoints of the parties at a basic level.	Describes who should be involved in the issue(s) and thoroughly discusses their viewpoints.	
Describes and analyzes possible/ alternative approaches	Is unable to describe or analyze alternatives or consider the effect on parties involved.	Describes and analyzes only one alternative and its effect on parties involved, but important elements are missing or misunderstood.	Describes and analyzes at least two alternatives and their effects on parties involved.	Describes and analyzes a number of alternative approaches and thoroughly considers the interests and concerns of all parties involved.	
Chooses an approach and explains the benefits and risks	Has difficulty choosing an approach or stating benefits and risks.	Chooses an approach and explains benefits and risks, but important elements are missing or misunderstood.	Chooses an approach and explains basic benefits and risks.	Chooses an approach and thoughtfully and thoroughly explains benefits and risks.	