May 19, 2009

To: All members of the Faculty and Instructional Staff
From: Teaching and Learning Subcommittee on Assessment of Student Learning
Mary Roth, Associate Provost for Academic Operations

Subject: Including intended student learning outcomes in syllabi

In its recent report, the Middle States Commission on Higher Education (MSCHE) external evaluation team recognized efforts to assess student learning across the Lafayette campus. However, the team also noted in their report areas requiring follow-up action. In particular, they reported that "*clearly articulated and appropriately integrated statements of expected learning outcomes at all levels are still not present.*" To be in compliance with the MSCHE standards for accreditation, the team stated that we need to

> *…distinguish between course objectives and expected student learning outcomes and ensure that all course syllabi contain clearly articulated objectives and student learning outcomes across all programs.*

The Teaching and Learning Subcommittee on Assessment of Student Learning has reviewed this recommendation and has looked at sample syllabi from across the divisions of the College. While the current requirement that syllabi contain course descriptions has resulted in syllabi containing course objectives, clearly articulated student learning outcomes are not routinely present in syllabi.

So that the College will be in compliance with MSCHE standards, all members of the faculty and instructional staff are asked to include intended learning outcomes in the syllabi prepared for the fall 2009 semester and in all future semesters. To assist you in meeting MSCHE requirements concerning student learning outcomes, the Teaching and Learning Subcommittee on Assessment of Student Learning has developed a draft definition of student learning outcomes and has gathered examples of student learning outcomes from a range of disciplines. This definition and the examples are attached to this memorandum.

The definition of student learning outcomes provided with this memorandum is considered to be an evolving definition. The subcommittee welcomes comments and suggestions to improve the definition.

Definition and Examples for Intended Student Learning Outcomes

Definition: Student learning outcomes

Student learning outcomes are statements describing our intentions about what students should know, understand, and be able to do with their knowledge at the end of a course or program. (Paraphrased from Huba and Freed, 2000.)

Guidelines for creating intended student learning outcomes

Student learning outcomes should focus on the end, not the means: what students should be able to do after they've successfully completed your course, not the tasks they are to do while in your course or program nor the concepts that will be taught while in your course.

Good student learning outcomes often use concrete action words that align with taxonomies of knowledge. (Table 1 aligns a number of verbs with Bloom's taxonomy of knowledge. Faculty at many institutions find such lists helpful as they delineate outcomes.)

Examples of statements that are <u>not</u> intended student learning outcomes[1]

- Students will study at least one non-literary genre of art.
- The course emphasizes X, Y, and Z.
- Students will be exposed to…
- Students will participate in…

Examples of intended student learning outcomes for courses

At the conclusion of your course, the student will be able to…

- Art:
  - identify works of art of a particular style or time period.
  - judge the effectiveness of the use of color in a work of art.
  - Sketch a still life using charcoal.
- Biology:
  - list examples of organisms that may be found in freshwater ponds.
  - make appropriate inferences and deductions from biological information.
  - understand each element of the scientific method.
- Chemistry:
  - design an experiment to test a chemical hypothesis or theory.
  - explain chemical reactions not explicitly introduced in prior study.

[1] These statements describe a curricular experience that students will have and not what students are intended to learn from that experience. Hence, they are not student learning outcomes.

- Earth Science:
  - classify mineral specimens.
  - analyze the surface and subsurface (three-dimensional and four-dimensional) geologic characteristic of land-forms.
- English:
  - present original interpretations of literary works in the context of existing research on these works.
  - summarize the distinctive characteristics of Hemingway's writing.
- Environmental Studies:
  - critically evaluate the effectiveness of agencies, organizations, and programs addressing environmental problems.
- History:
  - explain the impact of the Korean War on U.S.-Far East relations today.
- Psychology
  - write research reports in APA style.
  - apply APA guidelines for the ethical treatment of human research participants to research plans.
- Women and Gender Studies:
  - use gender as an analytical category to critique cultural and social institutions.
- Other examples:
  - design and conduct a research study.
  - design a community service project.
  - evaluate the validity of information on a web site.

Helpful resources

Further examples of outcomes and other assessment resources are available on the *Teaching & Learning: Outcomes Assessment* Moodle page. Members of the Teaching and Learning Subcommittee on Assessment of Student Learning are also available to meet with individual faculty.

Selected References

Allen, M.J. (2004). Assessing Academic Programs in Higher Education. Anker Publishing.

Driscoll, A., and Wood, S. (2007). Developing Outcomes-based Assessment for Learner-centered Education. Stylus Publishing.

Huba, M., and Freed, J. (2000). Learner-Centered Assessment on College Campuses: Shifting the Focus from Teaching to Learning. Allyn and Bacon.

Suskie, L. (2004). Assessing Student Learning: A Common Sense Guide. Anker Publishing.

Walvoord, B. (2004). Assessment Clear and Simple: A Practical Guide for Institutions, Departments, and General Education. Jossey-Bass.

Table 1. Relevant Verbs Related to Bloom's Taxonomy of Knowledge (modified from Allen, 2004)

Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
cite	arrange	apply	analyze	arrange	appraise
define	classify	change	appraise	assemble	assess
describe	convert	compute	break down	categorize	choose
identify	defend	construct	calculate	collect	compare
indicate	describe	demonstrate	categorize	combine	conclude
know	diagram	discover	compare	compile	contrast
label	discuss	dramatize	contrast	compose	critique
list	distinguish	employ	criticize	construct	decide
match	estimate	illustrate	debate	create	discriminate
memorize	explain	interpret	determine	design	estimate
name	extend	investigate	diagram	develop	evaluate
outline	generalize	manipulate	differentiate	devise	explain
recall	give examples	modify	discriminate	explain	grade
recognize	illustrate	operate	distinguish	formulate	interpret
record	infer	organize	examine	generate	judge
relate	locate	practice	experiment	hypothesize	justify
repeat	outline	predict	identify	invent	measure
reproduce	paraphrase	prepare	illustrate	manage	rate
select	predict	produce	infer	modify	recommend
state	report	schedule	inspect	organize	relate
underline	restate	shop	inventory	perform	revise
	review	sketch	outline	plan	score
	suggest	solve	question	prepare	select
	summarize	translate	relate	produce	summarize
	translate	use	select	propose	support
			separate	rearrange	value
			solve	reconstruct	
			test	relate	
				reorganize	
				revise	