

Stating Student Learning Outcomes

1. Examples of student learning outcomes from UH Hilo's General Education Committee members (Fall 2008)

<http://www.uhh.hawaii.edu/uhh/genedfac/outcomes.php>

These were prepared by individual instructors for courses they regularly taught, and some are highly specific. Such statements would appear in the course syllabi prepared by these instructors for their own sections. Course outcomes as stated in Master Syllabi prepared by departments for multi-section courses and are generally less specific.

See section 2 below for general principles for student learning outcomes.

Political Science 101

By the end of the course, successful students will be able to:

- Discuss the theoretical and historical underpinnings of the US Constitution.
- Describe the structure and function of the differing branches of American Government.
- Trace the evolving history and character of civil rights and civil liberties in America.
- Explain the influence socio-political movements, interest groups, corporations, political parties, campaigns and elections have on American politics.
- Locate and utilize reliable scholarly information about American politics
- Identify and use fundamental concepts associated with American politics in writing.
- Think clearly, logically, and critically about the theory and practice of American politics and express such analysis effectively in written form.
- Explain as well as demonstrate how individuals can make a difference in their local community and the nation as a whole.

English 254

Upon completion of the course, students will be able to:

- Demonstrate basic familiarity and comprehension of contemporary (post-1700) literature from a cross-section of writers and cultures from around the world.
- Correctly distinguish key poetic/literary forms, techniques, schools/movements, texts, and writers, and when prompted, explain why these are important in analyzing literature.
- Demonstrate and meaningfully articulate a cross-cultural appreciation of the global production of literature in open discussion and impromptu writing.
- Practice and precisely demonstrate the fundamentals of "close-reading" in a coherent and logical sophomore level essay.
- Identify and precisely employ the fundamental ideas of literary theory from 8 different schools at an introductory level.
- Prepare and articulate coherent interpretations of literature in a logical and critically astute paper involving a close-reading of texts vis-à-vis forms, techniques, schools of theory, and/or socio-historical contexts.

Management 300

By the end of the course, a successful student will be able to:

1. Identify and describe the theories of management and behavior covered in class.
2. Apply your knowledge to extra-organizational issues that today's managers face, such as globalization, workforce diversity, and the change in the corporate social contract.
3. Demonstrate the ability to communicate appropriate application of management theories with clarity and eloquence, which entails understanding and using the terminology and jargon of management correctly, and demonstrating understanding of the course material.
4. Analyze social science research, including management and organizational research, to determine validity and generalizability.

Political Science 341/Women's Studies 341

On completion of the course, students should be able to:

- identify broad developments in this history of warfare from the Neolithic period to the present
- give examples of women's activities in warfare throughout history
- trace women's evolving roles in the U.S. Armed Forces
- explain current policies regarding women in the U.S. Armed Forces in written form.
- identify and interpret major U.S. court rulings regarding women in the U.S. Armed Forces
- utilize and critically evaluate scholarly information on military history and women and war
- identify and distinguish academic theories of gender roles in war
- carefully scrutinize commonly accepted images of men, women and war.

English 345

By the end of the course, successful students will be able to:

- In essays, exams, and discussion postings, use important literary terms and concepts cogently and precisely in writing about poems, novels, picture books, and folk tales.
- On the asynchronous discussion board, present their readings (interpretations), reflections, and knowledge clearly and courteously and respond appropriately to their classmates' contributions.
- Write concise, well-supported brief essays that respond cogently to prompts and that integrate information and ideas in the readings and lectures with their own reflections on these materials.
- In all of the forms of writing used in the course, explain how and in what forms social contexts and social expectations shape and are shaped by literature.
- In essays, identify and comment on social and cultural assumptions that underlie our texts.
- Use Lualaba (as a model of web-based communication and meaning structure) and the internet competently and efficiently as learning tools, to receive and deliver documents, to share information, and to organize knowledge.

Marine Science 171

1. define key marine biological terms, such as diversity, coelom, invertebrate, larva, plankton,

polyp, sessile, radial symmetry, life cycle etc.

2. list distinguishing features of members of marine phyla and give examples of representative members

3. describe characteristic structures (and their functions) of organisms and give the phylum in which is each found

4. describe the basic physiology, ecology and adaptations of marine organisms

5. analyze and explain pros and cons of marine biological issues using knowledge of basic biology and ecology of marine organisms

6. compose effective written materials that assimilate, synthesize and reflect on the diversity, classification and natural history of marine organisms

7. locate, comprehend and utilize scientific information of various forms from reliable sources

8. present clear and logical information orally and in writing

Assignments:

The Genus Project will allow you to work independently and develop your own interests and imagination, as well as work collaboratively with classmates. The project will build throughout the semester, starting first with you choosing a genus, then determining its taxonomic classification and common name, learning about its basic biology and ecology, as well as its current research and conservation status by turning in Genus Questions. The Genus Project culminates with each of you preparing and delivering a short oral presentation with a handout in which you discuss your semester-long study of your genus. You'll also be asked to turn in a written paper (5-8 pages) with references.

Agriculture 230

Upon completion of the course, students will be able to:

Clearly trace the development of world agriculture from the first farmers through to modern large (mega)-farms while critically viewing the development from the perspectives of resource flow, social justice, environmental quality, and food security.

Provide illustrative examples of farming systems historically practiced by various civilizations and the degree to which nutrients were recycled.

Describe how increasingly intensive modern-farming systems reach a point where they remove more nutrients from the land than natural processes can restore in the short term.

Explain how the dilemma in number 3 above has been magnified by urbanized population growth where sanitation systems built to handle sewage and food waste delivered little of the nutrients they contained back to the farmlands.

Outline the flows of some crucial resources: water, the soil and its organic content, nitrogen and phosphorus as impacted by population growth.

Describe how the survival of today's 6 billion people (well beyond the earth's natural carrying capacity of 3.5 to 4 billion) is attributed to the remarkable Haber-Bosch industrial process for synthesizing nitrogen and hydrogen into ammoniacal fertilizers.

Evaluate the sustainability of synthetic nitrogen fertilizer use which demands prodigious amounts of costly energy and results in varying levels of aquatic and atmospheric pollution depending on agronomic management.

Describe how phosphorus fertilizer and feed supplements derived primarily from expensively mined rock phosphate, is inexorably transformed into waste products many of which run into aquatic systems due to inefficient recycling, thereby leading to eutrophication problems.

Indicate how the world's limited and very unequally distributed natural supplies of readily mined phosphorus may soon lead to the formation of a new OPEC where the P represents phosphorus instead of petroleum.

Provide detailed descriptions of the main conditions and steps required to restore ecological sustainability while avoiding essential nutrient resource exhaustion, namely, create systems for human and animal waste management that feed essential nutrients back to the land; maintain biodiversity; end inefficient water management and grazing of drylands; limit population growth; and redistribute people away from mega-cities.

Describe the roles of biodiversity and integrated pest management in sustainable agriculture.

Explain in general the relationships among culture, economics, politics, science, and agricultural development. A solid understanding of the cross-cultural interactions and exchange that linked the world's people and facilitated agricultural development is also expected.

Writing/quantitative assignments: problem sets; term paper

2. Good assessable learning outcome statements use verbs that describe definite, observable actions

From UH Mānoa's Assessment website:

<http://manoa.hawaii.edu/assessment/howto/outcomes.htm>

Bloom's taxonomy is a well-known description of levels of educational objectives. It may be useful to consider this taxonomy when defining your outcomes.

Bloom's Taxonomy

Level	Cognitive Behaviors
1. Knowledge	To know specific facts, terms, concepts, principles, or theories
2. Comprehension	To understand, interpret, compare and contrast, explain
3. Application	To apply knowledge to new situations, to solve problems
4. Analysis	To identify the organizational structure of something; to identify parts, relationships, and organizing principles
5. Synthesis	To create something, to integrate ideas into a solution, to propose an action plan, to formulate a new classification scheme
6. Evaluation	To judge the quality of something based on its adequacy, value, logic, or use

Verb Power

Concrete verbs such as "define," "identify," or "create" are more helpful for assessment than verbs such as "know," "understand," or passive verbs such as "be exposed to." Some examples of verbs frequently used in outcomes are included in the table below.

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	describe	construct	calculate	collect	compare
indicate	defend	demonstrate	categorize	combine	conclude
label	diagram	discover	compare	compile	contrast
list	discuss	dramatize	contrast	compose	criticize
match	distinguish	employ	criticize	construct	decide
memorize	estimate	illustrate	debate	create	discriminate
name	explain	interpret	determine	design	estimate
outline	extend	investigate	diagram	devise	evaluate
recall	generalize	manipulate	differentiate	explain	explain
recognize	give examples	modify	discriminate	formulate	grade
record	infer	operate	distinguish	generate	judge
relate	locate	organize	examine	manage	justify
repeat	outline	practice	experiment	modify	interpret
reproduce	paraphrase	predict	identify	organize	measure
select	predict	prepare	illustrate	perform	rate
state	report	produce	infer	plan	relate
underline	restate	schedule	inspect	prepare	revise
	review	shop	inventory	produce	score
	suggest	sketch	outline	propose	select
	summarize	solve	question	rearrange	summarize
	translate	translate	relate	reconstruct	support
		use	select	relate	value
			solve	reorganize	
			test	revise	

[From: Gronlund, N. E. (1991). *How to write and use instructional objectives* (4th ed.). New York: Macmillan Publishing Co.]