Appendix C: Action Words for Bloom's Taxonomy					
Knowledge	**Understand**	**Apply**	**Analyze**	**Evaluate**	**Create**
define	explain	solve	analyze	reframe	design
identify	describe	apply	compare	criticize	compose
describe	interpret	illustrate	classify	evaluate	create
label	paraphrase	modify	contrast	order	plan
list	summarize	use	distinguish	appraise	combine
name	classify	calculate	infer	judge	formulate
state	compare	change	separate	support	invent
match	differentiate	choose	explain	compare	hypothesize
recognize	discuss	demonstrate	select	decide	substitute
select	distinguish	discover	categorize	discriminate	write
examine	extend	experiment	connect	recommend	compile
locate	predict	relate	differentiate	summarize	construct
memorize	associate	show	discriminate	assess	develop
quote	contrast	sketch	divide	choose	generalize
recall	convert	complete	order	convince	integrate
reproduce	demonstrate	construct	point out	defend	modify
tabulate	estimate	dramatize	prioritize	estimate	organize
tell	express	interpret	subdivide	find errors	prepare
copy	identify	manipulate	survey	grade	produce
discover	indicate	paint	advertise	measure	rearrange
duplicate	infer	prepare	appraise	predict	rewrite
enumerate	relate	produce	break down	rank	role-play
listen	restate	report	calculate	score	adapt
observe	select	teach	conclude	select	anticipate
omit	translate	act	correlate	test	arrange
read	ask	administer	criticize	argue	assemble
recite	cite	articulate	deduce	conclude	choose
record	discover	chart	devise	consider	collaborate
repeat	generalize	collect	diagram	critique	collect
retell	give examples	compute	dissect	debate	devise
visualize	group	determine	estimate	distinguish	express
	illustrate	develop	evaluate	editorialize	facilitate
	judge	employ	experiment	justify	imagine
	observe	establish	focus	persuade	infer
	order	examine	illustrate	rate	intervene
	report	explain	organize	weigh	justify
	represent	interview	outline		make
	research	judge	plan		manage
	review	list	question		negotiate
	rewrite	operate	test		originate
	show	practice			propose
	trace	predict			reorganize
	transform	record			report
		schedule			revise
		simulate			schematize
		transfer			simulate
		write			solve
					speculate
					structure
					support
					test
					validate

Examples of Learning Outcome Statements in Humanities Disciplines

Asian American Studies

1. Students will develop a core competency in the history, culture and experience of Asian Pacific American communities in the United States.
2. Working from a social justice approach to race, class, ethnicity, gender and sexuality, students will develop and apply their critical thinking skills as demonstrated through written assignments, oral presentations, class discussion and examinations.
3. Students will acquire and develop effective communication and collaborative problem-solving skills, becoming leaders and learning the importance of collective action.
4. Students will develop and demonstrate basic research skills as they learn about the particular dynamics of working with Asian Pacific American communities.
5. Students will demonstrate an applied knowledge and practical application of their acquired skills through student and community work, in the process, learning the value and importance of community service.

The History or Theory of the Arts (HA)

Students should be able to:

1. Investigate the role and value of art in human life and demonstrate an understanding of the significance of specific art forms to the cultures that create them and adopt them;
2. Describe specific processes by which works of painting, sculpture, architecture, music, dance, theatre, film, multi-media, or environmental art are created; describe general creative processes common to two or more of these media;
3. Interpret and analyze works of painting, sculpture, architecture, music, dance, theatre, film, multi-media, or environmental art;
4. Demonstrate the dependence of meaning upon cultural and historical context when analyzing works of art;
5. Compare and contrast one work of art with another or one medium with another to illuminate both; and

6. Use appropriate technologies to conduct research on and communicate about the history or theory of the arts and to access, evaluate, and manage information to prepare and present their work effectively.

Literature

Students should be able to:

1. Investigate the role and value of literature in human life and demonstrate an understanding of the significance of specific literary works or genres to the cultures that create them and adopt them;
2. Describe specific processes used to create works of literature; describe general creative processes common to two or more literary genres;
3. Interpret and analyze works of literature;
4. Demonstrate the dependence of meaning upon cultural and historical context when analyzing works of literature;
5. Compare and contrast one work of literature with another or one genre with another to illuminate both; and
6. Use appropriate technologies to conduct research on and communicate about literature and to access, evaluate, and manage information to prepare and present their work effectively.

Humanities: Language, Culture, and Philosophy

Students should be able to:

1. Investigate the variety of human culture and demonstrate an understanding of the ways in which cultures have changed;
2. Understand and employ a wide range of humanistic, qualitative, quantitative, theoretical, or philosophical methods for recording and explaining human experience;
3. Describe ways in which a given language reflects a way of thinking, cultural heritage, larger set of cultural values, or aspects of society;
4. Identify and assess their own and others' values; identify the underlying premises in their own and others' arguments; and
5. Use appropriate technologies to conduct research on and communicate about language, culture, and/or philosophy and to access, evaluate, and manage information to prepare and present their work effectively.

Social Sciences and History

Social and Behavioral Sciences

Students should be able to:

1. Demonstrate knowledge of findings and theories in the social and behavioral sciences;
2. Demonstrate understanding of investigative methods used in the social and behavioral sciences;
3. Demonstrate critical thinking about arguments in the social and behavioral sciences and evaluate an argument's major assertions, its background assumptions, the evidence used to support its assertions, and its explanatory utility;
4. Understand and articulate how culture, society, and diversity shape the role of the individual within society and human relations across cultures;
5. Demonstrate knowledge of how social science can be employed to: (a) analyze social change, (b) analyze social problems, and (c) analyze and develop social policies; and
6. Use appropriate technologies to conduct research on, and communicate about, social and behavioral sciences and to access, evaluate, and manage information to prepare and present their work effectively.

Social and Political History

Students should be able to:

1. Demonstrate knowledge of important findings and theories in social and political history;
2. Demonstrate understanding of investigative methods used in social and political history;
3. Demonstrate critical thinking about historical arguments and evaluate an argument's major assertions, its background assumptions, the evidence used to support its assertions, and its explanatory utility;
4. Understand and describe change in history and historiography; and
5. Use appropriate technologies to conduct research on and communicate about social or political history and to access, evaluate, and manage information to prepare and present their work effectively.

Interdisciplinary Studies

 Students should be able to:

1. demonstrate understanding of the interconnections of knowledge within and across disciplines;
2. delineate and describe connections among different disciplines as they apply to specific systems around a central focus;
3. draw on multiple, relevant fields of study to analyze and solve problems; and
4. use appropriate technologies to conduct research on and communicate about interdisciplinary studies and to access, evaluate, and manage information to prepare and present their work effectively.

Emerging Issues Major

Students should be able to:

1. demonstrate an understanding of the interconnections of knowledge and its connections to the past, present, and future developments and or issues;
2. delineate and describe the importance of studying and/or researching this/these emerging issue/s;
3. articulate understanding of ways in which information and knowledge are connected to past events or findings and recent developments; and
4. use appropriate technologies to conduct research on and communicate about emerging issues and to access, evaluate, and manage information to prepare and present their work effectively.

Majors in French and Francophone Studies will be able to:

Speak French in a way intelligible to native speakers, including the ability to converse comfortably on general topics, narrate events, and describe what they see.

Demonstrate proficiency in written communication in social correspondence.

Demonstrate familiarity with the major Francophone writers from the Middle Ages through the Twentieth Century, and with major trends in Francophone literature and culture.

Demonstrate cultural competency in French-Francophone civilizations, including familiarity with attitudes, lifestyles, conceptions of society, social and political structures from historical, anthropological, and symbolic perspectives.

Demonstrate research competency in French-Francophone literature and culture, including familiarity with major journals, critical approaches, academic research and methodology, current news from the target countries, bibliographical and other sources related to coursework, contemporary cultural sources, and interactive communicative sites.

Religion Major

a. Skills:
The student who majors in religion will thus be able to demonstrate the capacity to:
1. Read, critically and empathetically, the works of scholars in the field of religion
2. Construct a well-organized research paper that offers a persuasive argument
3. Receive and respond to constructive criticisms of their written and verbal presentations
4. Demonstrate, in writing and speaking, their assumptions and biases
5. Use, with growing sophistication, the scholarly tools and methods of the discipline
6. Demonstrate their mastery of factual and conceptual frameworks within the field of religion
7. Publicly present their study and research in an engaging and persuasive manner
8. Identify and pursue a question or problem independently, using library and other resources
9. Demonstrate advanced undergraduate writing abilities
10. Demonstrate competence in discussing and evaluating complex ideas

b. Knowledge:

1. Articulate the role of religion in human communities, both historically and globally
2. Possess a capacity for critical and empathetic understanding of the texts, practices, histories, theologies, and/or ethics within Christian Traditions and Global Religious Traditions
3. Recognize and be able to critically appreciate and evaluate religion's role in shaping human purpose and meaning
4. Engage and master the work of various scholars of religion on a single topic, as evidenced in the Capstone Research Seminar
5. Demonstrate mastery of factual and conceptual information basic to a particular discipline or area in the field of religion and be able to identify the significance of facts, concepts and methodologies for the study of religion
6. To know the academic tools and methods utilized in various disciplines within the field of religion

c. Beliefs and Values:
1. Develop critical sensitivity to the importance of religious aspects of human life

Communication

- Be able to critically analyze an act of communication, applying appropriate conceptual tools in order to develop an explanation and evaluation of the event/situation.
- Be able to conduct an appropriate situational and audience analysis as a precursor to message design, identifying salient constraints, exigencies, and audience features.
- Be able to design messages and/or communicative patterns that are strategically and effectively adapted to both the situation and communicator goals.
- Be able to effectively engage in face-to-face communication with both individuals and larger audiences (including diverse audiences and people from different cultural/ideological backgrounds), utilizing appropriate principles of interpersonal communication and public speaking.

- Be willing to use their communication skills and knowledge to serve as agents for positive social change and have had at least one major experience in doing so. We place particular emphasis on developing students' willingness to advocate for issues of social justice.

Journalism

In addition to the above outcomes, undergraduate Journalism students should be able to:

- Understand the role of the news media in society.
- Understand what constitutes sound news judgment and be able to apply that knowledge in preparing, evaluating, and selecting news stories.
- Understand the impact of communication technology on news content and delivery.
- Be able to research and write accurate and effective news stories following genre-specific guidelines for content, form, and tone.
- Be able to develop effective news stories in at least two media: print and at least one electronic medium.
- Be able to use appropriate research tools to conduct in-depth investigations of public figures and/or issues.
- Have developed the ethic of a journalist, committed to practicing journalism to "hold the powerful accountable and give voice to the voiceless."

BA in Linguistics

Describe sound patterns in any language, with some emphasis on English, using appropriate formalisms, and conduct psycholinguistic experiments on phonological constructs;
Perceive, produce, and transcribe speech sounds of the

world's languages using the International Phonetic Alphabet;

Analyze sentence structure in any language in terms of grammatical relations and constituent structure, and recognize the typological diversity of syntactic phenomena;

Analyze the meaning of words and sentences, identify types of lexical and sentence relations, elaborate on the role of linguistic and pragmatic context in the interpretation of meaning, and understand the role of theories in the analysis of semantic data;

Use library and electronic research sources effectively;

Use English reading and writing skills effectively to report on research or problem analysis;

Discuss issues in speech synthesis, speech recognition, natural language processing and produce synthesized speech, develop speech recognition and natural language processing programs.

Evaluate theories of first and second language acquisition and teaching;

Identify phonological, morphological, syntactic and semantic changes in the history of a language, discuss the contribution of social factors and language contact to language variation and change, use the comparative method to reconstruct ancestors of related languages, and explain the genetic and typological classification of languages.

Analyze phonological, morphological, syntactic, semantic, and historical linguistics data

Critically evaluate different approaches to the analysis of linguistic data

Demonstrate proficiency equivalent to one-year college level study in a language other than their native language.

Identify language-related social programs in areas such as education, the law, the workplace, etc., and discuss the feasibility of various empirically based solutions.

Department of Art

Program: BA Studio Art
Graphic Design

Curriculum Matrix

Course	Content				Critical Thinking				Communication			Integrity/Values			Project Management		
	Ascribe meaning to the visual elements, in all their guises and combinations	Describe the inherent properties of the principal artistic media	Recognize historic styles, their sequence, and the cultural forces that shaped them	Identify career opportunities within the art world	Critically analyze works of art or written materials within the contemporary discourse of the subdisciplines: studio art, art history, criticism, arts management, art education, or graphic design	Develop a personal conceptual framework for evaluating the relevance of a work, whether visual or verbal, to its larger cultural, social, or historic context	Conduct research by selecting and managing both traditional and non-traditional resources to inform decisions	Convey a complex idea effectively through purely visual means	Verbally communicate a complex idea in spoken or written form	Employ (or intentionally reject) professional communication conventions, when it is appropriate to do so	Treat shared tools, work areas, exhibit spaces, and other resources with respect	Evaluate the work and opinions of fellow students with honesty and respect	Exercise academic integrity in all forms	Produce a cohesive body of work built upon sound professional practices in the field of choice: studio art, art history, criticism, arts management, art education, or graphic design	Develop and execute projects that take into account resources and timetables	Collaborate with peers or professionals, whenever required for the successful completion of a project
ARH2050 Western Survey I	I		I	I	I		I		I		I	I	III	I	I	I
ARH2051 Western Survey II	I		I	I	I	I	I		I		I	I	III	I	I	I
ARH3590 Perspectives in Ancient & World Art	P		P	P	P	P	P		P	P	P	P	P	P	P	P
Choose one:																
ARH4450 Modern Art	P		P	P	P	P	P		P	P	P	P	P	P	P	P
ARH4470 Art after 1950	P		P	P	P	P	P		P	P	P	P	P	P	P	P
ART1300C Drawing I	I	I		I	I	I		I		I	I	I	I	I		I
ART1301C Drawing II	P	P	P	P	P	P	P		P	P	P	P	P	P	P	P
ART2201C 2D Design	I		I	I	I		I		I		I	I	I	I		I
ART2203C 3D Design: Sculptural Form	I		I	I	I		I		I		I	I	I	I		I
ART2500C Painting I	I	I	I	I	I	I	I		I		I	I	I	I		I
ART2701C Fundamentals of Sculpture	P	P			P	P		P			P	P	P	P	P	P
ART3312C Drawing III	P	P	P	P	P	P		P		P	P	P	P	P	P	P
ART2600C Intro to Digital Studio Practice	I	I		I	I	I		I	I	i	I	I	I	I		I
ADV3000 Introduction to Advertising				I	I				I	I			I		I	I
MAR3023 Marketing Fundamentals				I	I				I							
CGS3172 Web Design for e-Commerce				I	I		I		I		I	I	I		I	I
ART3213C Advanced Ideas & Concepts	P	P	P		P	P	P	P	P	I	P	P	P	P	P	P
ADV3300C Advertising Media				I	I				I		I	I	I		I	I
ART3484C Principles of Graphic Art	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
ART3618C Introduction of Web-based Art	P	I	P	P	P	P	P	P	P	P	P	P	P	P	P	P
ART4619C Advanced Digital Multimedia	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
ART4632 Digital Studio Senior Project	M,A	M,A	M,A	M,A	M,A	M,A	M,A	M,A	M,A	M,A	M,A	M,A	M,A	M,A	M,A	M,A
ART4633C Advanced Techniques in Web Design	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M,A

These are all required courses for this specialization. The shaded area indicates a cluster of courses of which the student chooses one.

ALC is available at http://uwf.edu/cutla/ALC/Art_ALC.pdf

revised 10/2010

Entries in the table cells identify where each program outcome is Introduced (I), Practiced (P), Mastered (M), and Assessed (A).

Coding for Curricular Mapping(Ohio State University: Pharmacy)

Connection Codes – Degree or level of connection between course and outcome.

    Not Applicable or Level 0
Meaning that there is no relationship between the course and the outcome.

    I – Introductory/Background or Level 1
There is an **indirect relationship** between the course and the outcome. The outcome itself is not the focus of the course but at least one element of the course serves as a building block to the achievement of the final outcome. For example, course elements may provide either the knowledge, skills or attitudes necessary for the ultimate achievement of the outcome.

    M – Intermediate/transitional or Level 2
There is a **more of a direct relationship** between the course and the outcome than at Level 1. A mixture of course elements supports the final achievement of the outcome, but the final integration of the knowledge, skills, and attitudes necessary for its achievement is not accomplished in this course. For example, knowledge, skills and/or attitudes (at least 2 of the 3) required for the achievement of the outcome may be the focus of the course or course element, but the integration of all three is not.

    E – Emphasized or Level 3
There is a **direct relationship** between the course and the outcome. At least one element of the course focuses specifically on the complex integration of knowledge skills and attitudes necessary to perform the outcome.

Pedagogy codes – How outcome is taught
    L = Lecture
    LD = Lecture/discussion
    C = Cases – any type of problem based learning, learning applied to realistic scenarios
    E = Experiential – actual practice of the outcome in a real or simulated environment, may include the use of live "subjects" (patients, patient actors, health care practitioner etc)
    I = Independent study

Assessment codes – How the outcome is evaluated
    B = building blocks – students are assessed primarily on their grasp of basics i.e. recall of information rather than their ability to apply and or synthesize that knowledge and/or skills and/or attitudes
    A = Application/Synthesis – students are assessed on their ability to apply and synthesize knowledge and/or attitudes and/or skills. This includes simulated experiences
    D = Demonstration – students demonstrate their abilities; they are assessed based on their ability to show mastery of the elements of the outcome. The "demonstration" may occur in either a simulated environment (e.g., OSCE or professional practice laboratory) or in realistic setting (e.g., patient care setting)

	Introductory Course	Research Methods	Advanced Content Course A	Laboratory / Practicum Course	Advanced Content Course B	Advanced Content Course C	Advanced Content Course D	Capstone Course
Content								
SLO 1	Exam Questions		Exam Questions		Term Paper			Project Rubric
SLO 2	Exam Questions				Exam Questions		Exam Questions	Project Rubric
SLO 3	Exam Questions	Exam Questions				Exam Questions		Project Rubric
SLO 4	Exam Questions	Exam Questions		Lab Reports			Exam Questions	Project Rubric
Critical Thinking								
SLO 5		Term Paper			Exam Questions			Project Rubric
SLO 6				Exam Questions				Project Rubric
Communication								
SLO 7		Term Paper		Term Paper				Project Rubric
SLO 8						Term Paper		Project Rubric
Integrity / Values								
SLO 9		Term Paper		Term Paper		Term Paper		Project Rubric
SLO 10								
Project Management								
SLO 11				Peer Evaluations				
SLO 12								Project Rubric

Center for University Teaching, Learning, and Assessment   **http://uwf.edu/cutla/**

GENERAL EDUCATION OUTCOMES
Natural Science Department

PHYSICS ASSESSMENT MAP

| GENED SLO	Performance Measures	PHY 1000	PHY 2053	PHY 2054	PHY 2048	PHY 2049	PSC 1121	AST 1002
1. Be able to think critically	a. Identify the validity of collected data.		I L,T	E L	I L	E L		
	b. Use graphical and numerical methods to organize, analyze and interpret natural phenomena from collected data.		I L	E L	I L	E L		
	c. Use graphs, tables and charts to summarize, analyze and interpret information to solve problems.		I W	E T	I W	E T		I T
2. Demonstrate facility in written and oral communications	a. Speak clearly, project voice sufficiently, and use appropriate vocabulary.	E P	E C	M C	E C	M C	I C	
	b. Write effective Lab Reports and Project Reports	I P	E LR		E LR			I P
	c. Present information clearly in tables, charts and graphs.	I P	E LR		E LR			

Level of Attention	Method of Learning	Method of Assessment
I=Introduce	L=Laboratory Experiment	Written document using a scoring rubric
E = Emphasize	C = Class Discussion	Portfolio entry scored with scoring rubric
M = Master	LR = Lab Report	Exam or Quiz scored against benchmark
	P = Project	Oral Presentation using a scoring rubric
	T = Quiz or Test	Rising Junior Milestone Exam using rubric and benchmark score
	W = Homework	Other….

Some Direct and Indirect Methods, including the Use of Technology,
from Peggy Maki from forthcoming (late 2010) New Edition of *Assessing for Learning,*
Stylus Publishing, LLC

- Test of knowledge of facts, processes, procedures, concepts, etc.
- Case Study/Problem that requires students to demonstrate how one has integrated outcome-based learning into his or her work
- Summary from homework assignment; summary after a segment of lecturing or other pedagogical method
- Description of what one already knows before movement into a new topic or focus
- Discussion of how one may have changed his or her understanding based on learning more about a topic or engaging in research on a topic
- Group work that emerges from material covered with self-analysis and analysis of others
- Team projects that emerge from material covered
- Self-reflection on what one does and does not understand
- Written assignment that explores a distinctive critical perspective or problem
- Critical incident response
- Representative disciplinary or professional work assignments
- Capstone Project
- Thesis
- Collaborative Project
- Research Project
- Interpretation of unidentified pieces of discourse to ascertain how well students can make inferences about when documents were written and about the beliefs or concepts that underlie each one
- Logbook or journal tasks that explore concepts or problems or situations over time or explores learning against pedagogy such as interactive simulations
- Event analysis
- Interpretation of video clips or visual materials
- Case study or studies examined over time as students move through courses and educational experiences
- Oral examination
- E Portfolio—collection of student work based on selected assignments in the curriculum
- Concept, knowledge or process maps (visual representation)
- Concept inventories, such as in physics and in chemistry
- Knowledge surveys
- Agreed upon embedded assignments or common assignments you will sample such as in a final examination
- Writing, to speaking, to visual presentation
- Observations of interactions, decision making, simulations
- Case study with analysis—use of parallel case studies over time

- Self-reflective writing—especially useful after students have received feedback or have engaged in a sub-task or task
- Externally or internally reviewed student projects
- Locally developed tests or other instruments
- Standardized exams
- Problem with solution and ask for other solutions
- Mining of data such as learning objects at Merlot: students make inferences about original work from a particular period of time, such as from literature, painting, letters and other historical documents
- Observation of a debate (particularly useful for a focus on ethical issues)
- Virtual simulations
- Milestone exams
- Complex problems that can be approached from many perspectives or disciplines
- Revisiting a problem over time to track learning
- Knowledge, decision, or procedural maps http://classes.aces.uiuc.edu/aces100/ mind/c_m2.html:

Spider Concept Map
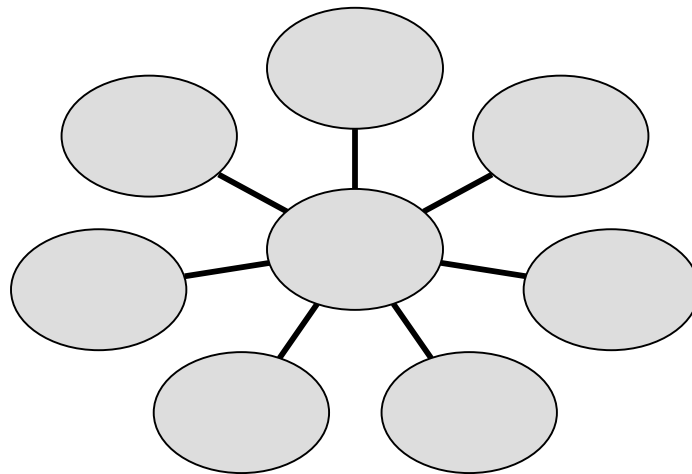
- **Situated Experiences along the Chronology of Learning**

    - Community-based projects (research) launched in the first year

    - Internships

    - Experiments

    - Research launched in the first year to solve a relevant problem

    - Research with faculty

    - Solo or team projects launched in the first year

- Co-designed projects with a mentor or mentors (curricular-co-curricular projects, for example)

- **Chronological use of a case study at significant points in the GE curriculum to assess students' abilities to transfer and apply new knowledge, concepts, etc., to a complex, muddy problem**

- **Chronological Use of Complex Problems that Necessitate the Integration of Quantitative Literacy**
  - "Quantitative literacy, the ability to discriminate between good and bad data, the disposition to use quantitative information to think through complex problems—these are capacities that educators across fields should be helping students develop." From: Burke, Michael C. (October, 2007). "A Mathematician's Proposal." *Carnegie Perspectives*. www.carnegiefoundation.org/perspectives/sub.asp?key=245&subkey)

- **E-Portfolios that Store Evidence of Integration over Time against the Background of the Curriculum and Co-curriculum. E-portfolios Should also Include Chronological Self-reflection on How One's Perspectives, Knowledge, Performance, etc., Changed over Time**

- **Smaller Projects over Time that Lead to a Final "Capstone Project"**

<u>Assessment via Technology</u>

- Team work across media (digital media and interfaces) and modes of communication

- Authorship of a simulation or a webpage

- Performance in virtual environments—virtual reality

- Data mining online

- Threaded discussions online

- Creation of wikis

- Gaming accompanied with one's analysis

  - "critical thinking," "probing," "telescoping" From: Holbert, Nathan. (February, 2008). "*Shooting Aliens: The Gamer's Guide to Thinking***."** ***Educational Leadership.*** Vol. 65. No.5**.)**

- Podcasts

- Clickers to assess transfer of or new application of learning

- Online exercises

- Online journals

- interactive computer simulated tasks that provide data on patterns of actions, decisions, etc. (for example, eCollege claims it provides these kinds of data)

Indirect Methods of Assessment

* Surveys, questionnaires

* Interviews

* CCSSE or NSSE

* SALG—Student Assessment of Learning Gains –www.SALG.edu

* SGID—small group instructional design

* Institutional data (course-taking patterns, audit of syllabi)

Sample Assessment Report Questions

List of Learning Outcomes :

What process did you undertake to develop and achieve agreement among colleagues about your learning outcome statements?

How did you validate these outcomes internally and externally?

If you used specialized or professional standards, did you also complement those with institutional-specific learning outcomes?

What process will you undertake to periodically review and perhaps revise your learning outcome statements?

Performance Criteria

Describe the process you collectively underwent to articulate the attributes (knowledge, skills, behaviors) that demonstrate an outcome or set of outcomes or to determine that a norm-based instrument was valid for your program.

How did you assure reliability of your scoring?

Strategies for Teaching/Learning

How are courses and the curriculum or co-curriculum intentionally designed to contribute to students' learning of these agreed upon learning outcome statements?

Did your department develop a curricular or curricular-co-curricular map? Were there obstacles you faced in attempting to discern how well courses, the curriculum, or co-curriculum contribute to students' learning of these agreed upon learning outcome statements? If so, please describe how you addressed these obstacles?

Program-Level Assessment Method(s) and Timing

How did you identify the kinds of direct and indirect methods of assessment you chose to use to assess specific learning outcome statements?

How did you determine that your direct methods align with students' teaching and learning and course-based assessment methods?

Identify the timeline you followed and the strategy you used to summatively assess students' achievement of specific learning outcome statements (for example, required capstone project in a final course; embedded case study in a final exam?

Who was responsible for implementing your summative assessment method(s), collecting the results, scoring the results and preparing the analysis of results?

Expected Level of Achievement

Identify the level at which you expected students to perform either through norm-based or criteria-based interpretations.

Explain how you set this level of expectation (nationally established, locally established, professionally established by an organization).

Actual Level of Achievement

Describe how well students actually achieved in relation to your expected level(s) of achievement with specific focus on item analysis or analysis of criteria you used.

Analysis and Interpretation of Data

If you developed or used a scoring rubric, describe students' patterns of strength and weaknesses against your criteria

If you used a standardized instrument, describe students' patterns of strength and weakness using item or content analysis provided by the developer of the instrument

In both cases describe how your department members interpreted these results, drawing on other sources of data, such as institutional data or department data, such as course taking patterns.

Actions Taken

What specific changes have you made or will you make in pedagogy, curricular design or sequencing, instructional design, or educational practices to improve teaching and learning?

Timetable for Reassessment

Once these changes are implemented, identify when you intend to reassess students' performance to ascertain that these changes contribute to improving student learning.

If you have already reassessed, what did you learn about the efficacy of your changes?

Department/Program Template for Assessing Your Students' Learning
from Peggy Maki

Has your department/program:

- Collaboratively articulated department or program-level learning outcome statements?

- Mapped where and how students progressively learn these outcomes and identified points along the curriculum, as well as at the culmination of the program of study, when students build upon and demonstrate these collaboratively agreed upon outcomes?

- Discussed the design of the curriculum as reflected in a departmental curricular map, focusing on (1) pedagogies or educational practices that chronologically foster desired learning outcomes and on (2) how faculty intentionally build upon each others' courses and educational experiences to continue to foster students' learning

- Oriented and chronologically acculturated students to these outcomes

- Oriented new and adjunct faculty to these outcomes

- Integrated these outcomes into syllabi so that students continue to think about and reflect on their learning

- Created times along students' program of study to position them to assess their learning gains across their program of study, such as in focus groups or at the end of courses, and used these results for departmental discussions

- Collaboratively developed and distributed criteria and standards of judgment, scoring rubrics, to assess students' progress towards and achievement of your department-level outcomes and to position students to self- or peer assess

- Identified times to convene department members to analyze, interpret and use results of assessment to identify patterns of strength and weakness in student work that lead to discussion about and reflection on ways to improve student achievement through changes in pedagogy, curricular and instructional design, or other educational practices

- Identified times to implement collaboratively agreed upon changes to ascertain how well these changes improve student learning