

APPENDIX

Additional Information for SACS Summer Institute 2012 Breakout Session:
 Defining, Assessing, and Documenting Student Learning Outcomes at Senior Institutions
 Presenter: Susan Bosworth

CURRICULAR MAPPING: PROGRAM LEVEL

University of West Florida:

http://uwf.edu/cutla/curriculum_maps.cfm

Guidelines for Curriculum Maps

Curriculum maps can be useful assessment tools for program-level assessments. A curriculum map can identify courses in which departments might collect assessment data for specific learning outcomes. These maps also provide an overview of the structure of the curriculum and the contribution of individual courses to the goals of the program. Curriculum maps can identify program strengths - student learning outcomes that are thoroughly addressed. Curriculum maps can also help departments identify gaps (learning outcomes that are addressed by only a few courses) and suggest whether students take courses in an optimal sequence. Finally, curriculum maps can serve as useful advising tools that provide students with an overview of the role of each course in the curriculum and why some courses should be taken in a particular order.

(Further guidance and examples are provided on the UWF website)

University of Hawai'i – Manoa:

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

EXCERPT FROM A HYPOTHETICAL BIOLOGY PROGRAM CURRICULUM MATRIX

Key: "I"=Introduced; "R"=reinforced and opportunity to practice;
 "M"=mastery at the senior or exit level; "A"=assessment evidence collected

Courses	Intended Student Learning Outcomes			
	Apply the scientific method	Develop laboratory techniques	Diagram and explain major cellular processes	Awareness of careers and job opportunities in biological sciences
BIOL 101	I	I		I
BIOL 202	R	R	I	
BIOL 303	R	M, A	R	
BIOL 404	M, A		M, A	R
Other: Exit interview				A

Example: Program Level Mapping of SLOs to Curricular Experiences

Department Courses & Experiences <i>(List of all courses and experiences offered in Sociology)</i> <i>*Required of all majors</i>	The Sociology Faculty expects students majoring in the discipline to be able to:				
	Demonstrate the ability to use qualitative & quantitative methods in sociology	Identify basic methodological approaches & describe the role of empirical research in building sociological knowledge	Compare the basic methodological approaches for gathering & analyzing data	Design a research study & explain why various decisions were made	Critically assess a research report & explain how the study could have been improved
	MAP experiences in which SLO is [I]ntroduced, [R]einforced, and [E]mphasized. MAP courses in which SLO is assessed.				
SOC 250 (Principles of Sociology) *					
SOC 351 (Sociological Theory) *					
SOC 352 (Methods of Social Research) *					
SOC 353 (Social Statistics) *					
494W (Senior Project) or SOC 495-496 (Honors)					
...					

Example: Course Level Mapping of SLOs to Course Experiences

Course: SOC 353 (Social Statistics) <i>(List course experiences)</i>	The Sociology Faculty expects students majoring in the discipline to be able to:				
	Demonstrate the ability to use qualitative & quantitative methods in sociology	Identify basic methodological approaches & describe the role of empirical research in building sociological knowledge	Compare the basic methodological approaches for gathering & analyzing data	Design a research study & explain why various decisions were made	Critically assess a research report & explain how the study could have been improved
	MAP the different experiences in which expectation is addressed. Indicate how learning is assessed in course.				
Lectures					
SPSS Exercises					
Tests					
Group Project					
Final Paper					
Indicate evidence of student learning that can be used in program assessment of SLOs					

Example: Mapping SLOs to Evidence of Student Learning

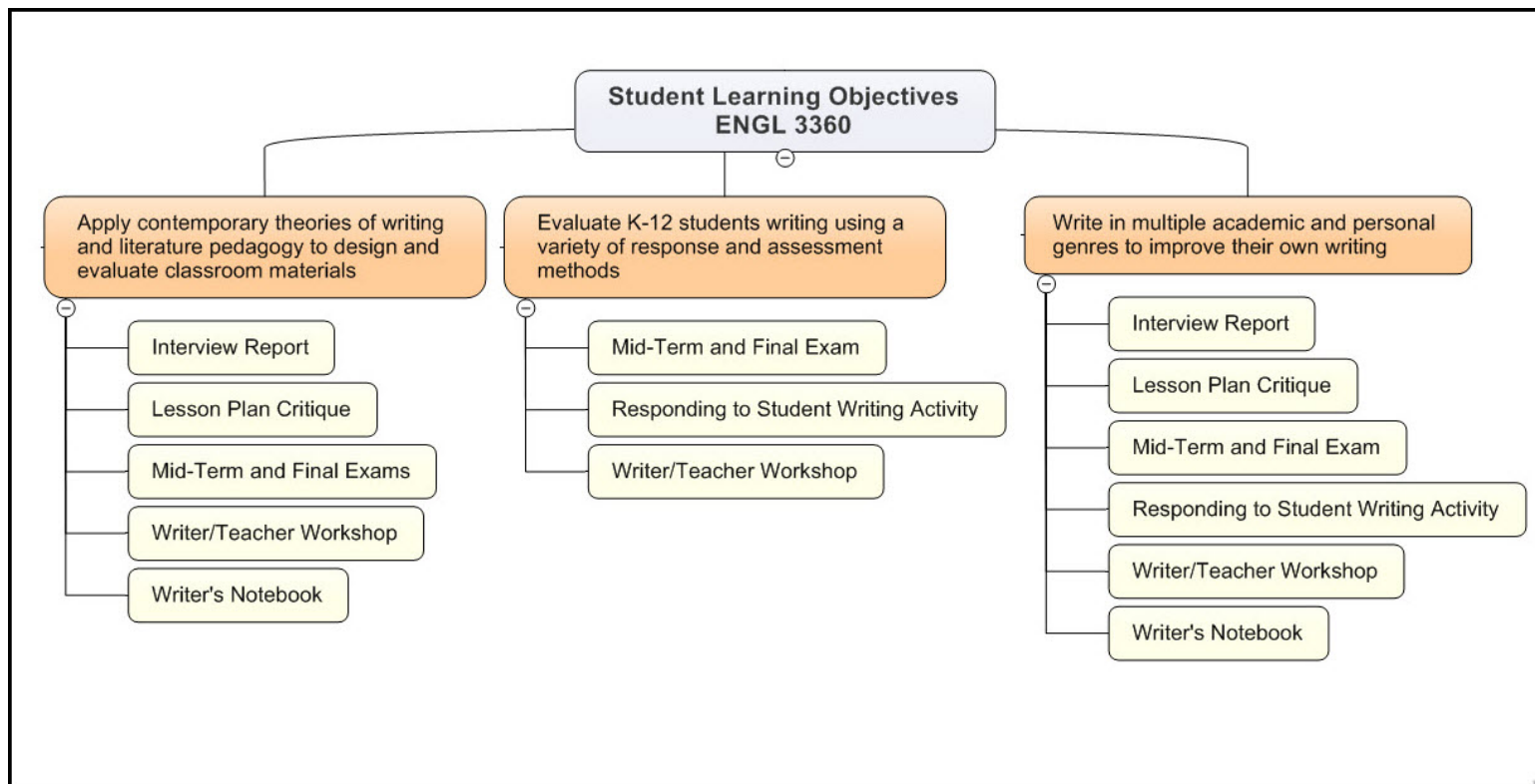
Department Courses & Experiences <i>(List of all courses and experiences offered in Sociology)</i>	The Sociology Faculty expects students majoring in the discipline to be able to:				
	Demonstrate the ability to use qualitative & quantitative methods in sociology	Identify basic methodological approaches & describe the role of empirical research in building sociological knowledge	Compare the basic methodological approaches for gathering & analyzing data	Design a research study & explain why various decisions were made	Critically assess a research report & explain how the study could have been improved
	MAP evidence of student learning				
From courses					
From co-curricular experiences					
From other sources: direct measures					
From other sources: indirect measures					

Graphical display of student learning outcomes

by Amy Campbell on October 27, 2010 · No Comments · in Blog, Teaching Strategies

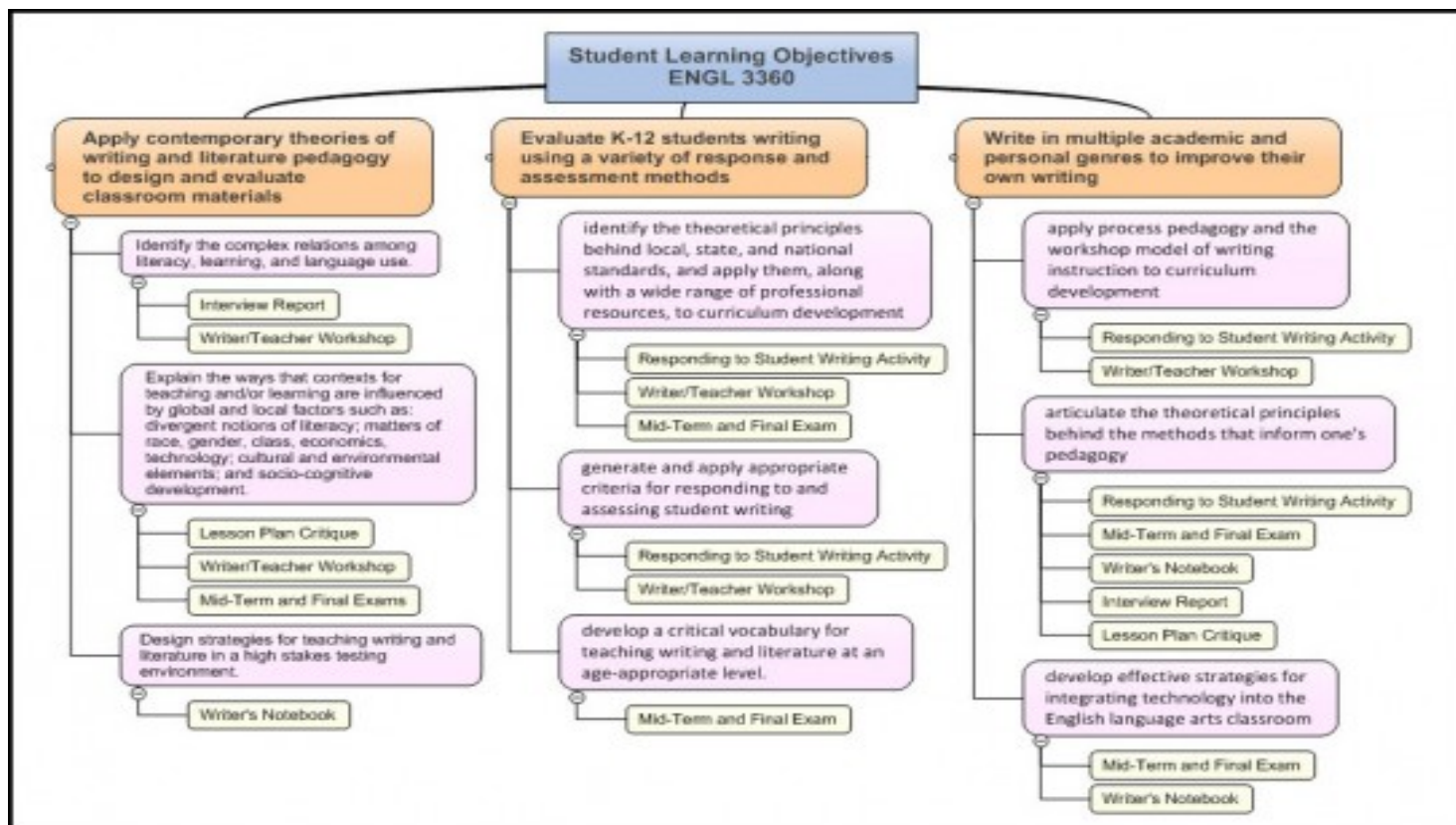
From Duke's Center for Instructional Technology <http://cit.duke.edu/2010/10/graphical-display-of-student-learning-outcomes/>

Resource described by Amy Campbell: The [ProfHacker blog*](#) at the Chronicle of Higher Education [post by Billie Hara](#), who at the time of the post was an assistant professor of English at Texas A&M University and one of ProfHacker's regular contributors. Hara describes her use of simple graphics to organize and display the relationships between her course's student learning outcomes and the course assignments.



A link to a sample graphic from Hara's post, showing the relationship between student learning outcomes and assignments in one of her courses.

The chart can be simple (as above) or can also list [sub-goals under each of the learning objectives](#), with assignments relevant to each. The idea is to make clear the connections between each of the student activities and assessments, and the course learning goals. Hara refers back to her graphics often to remind students of where they are in the course, why they are doing what they are doing, and the big picture of their progress in the course.



Amy Campbell provides useful information about technology to produce graphics and points to a couple freebies: giffy.com or creately.com,

*As an aside, if you haven't yet subscribed to [ProfHacker](#) we encourage you to give it a try, for its great tips and conversations about teaching, with and without technology. You can follow ProfHacker via RSS, or on Twitter or Facebook.

AAC&U: Valid Assessment of Learning in Undergraduate Education

<http://www.aacu.org/value/index.cfm>

(Enter email to access/download rubrics: <http://www.aacu.org/VALUE/rubrics/index.cfm>)

VALUE Rubrics

Learning Outcomes for the development of VALUE Rubrics:

Intellectual and Practical Skills

- Inquiry and analysis
- Critical thinking
- Creative thinking
- Written communication
- Oral communication
- Reading
- Quantitative literacy
- Information literacy
- Teamwork
- Problem solving

Personal and Social Responsibility

- Civic knowledge and engagement—local and global
- Intercultural knowledge and competence
- Ethical reasoning
- Foundations and skills for lifelong learning

Integrative and Applied Learning

- Integrative and applied learning

AAC&U: Critical Thinking VALUE Rubric *for more information, please contact value@aacu.org*

The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more **sophisticated** levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning, not for grading. The core expectations articulated in all 15 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. The utility of the VALUE rubrics is to position learning at all undergraduate levels within a basic framework of expectations such that evidence of learning can be shared nationally through a common dialog and understanding of student success.

Definition

Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

Framing Language

This rubric is designed to be transdisciplinary, reflecting the recognition that success in all disciplines requires habits of inquiry and analysis that share common attributes. Further, research suggests that successful critical thinkers from all disciplines increasingly need to be able to apply those habits in various and changing situations encountered in all walks of life.

This rubric is designed for use with many different types of assignments and the suggestions here are not an exhaustive list of possibilities. Critical thinking can be demonstrated in assignments that require students to complete analyses of text, data, or issues. Assignments that cut across presentation mode might be especially useful in some fields. If insight into the process components of critical thinking (e.g., how information sources were evaluated regardless of whether they were included in the product) is important, assignments focused on student reflection might be especially illuminating.

Glossary

The definitions that follow were developed to clarify terms and concepts used in this rubric only.

- **Ambiguity:** Information that may be interpreted in more than one way.
- **Assumptions:** Ideas, conditions, or beliefs (often implicit or unstated) that are "taken for granted or accepted as true without proof." (quoted from www.dictionary.reference.com/browse/assumptions)
- **Context:** The historical, ethical, political, cultural, environmental, or circumstantial settings or conditions that influence and complicate the consideration of any issues, ideas, artifacts, and events.
- **Literal meaning:** Interpretation of information exactly as stated. For example, "she was green with envy" would be interpreted to mean that her skin was green.
- **Metaphor:** Information that is (intended to be) interpreted in a non-literal way. For example, "she was green with envy" is intended to convey an intensity of emotion, not a skin color.

Definition: Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion. *Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.*

	Capstone 4	Milestones		Benchmark 1
		3	2	
Explanation of issues	Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.	Issue/problem to be considered critically is stated, described, and clarified so that understanding is not seriously impeded by omissions.	Issue/problem to be considered critically is stated but description leaves some terms undefined, ambiguities unexplored, boundaries undetermined, and/or backgrounds unknown.	Issue/problem to be considered critically is stated without clarification or description.
Evidence <i>Selecting and using information to investigate a point of view or conclusion</i>	Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.	Information is taken from source(s) with enough interpretation/evaluation to develop a coherent analysis or synthesis. Viewpoints of experts are subject to questioning.	Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning.	Information is taken from source(s) without any interpretation/evaluation. Viewpoints of experts are taken as fact, without question.
Influence of context and assumptions	Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position.	Identifies own and others' assumptions and several relevant contexts when presenting a position.	Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).	Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). Begins to identify some contexts when presenting a position.
Student's position (perspective, thesis/hypothesis)	Specific position (perspective, thesis/hypothesis) is imaginative, taking into account the complexities of an issue. Limits of position (perspective, thesis/hypothesis) are acknowledged. Others' points of view are synthesized within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) takes into account the complexities of an issue. Others' points of view are acknowledged within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) acknowledges different sides of an issue.	Specific position (perspective, thesis/hypothesis) is stated, but is simplistic and obvious.
Conclusions and related outcomes (implications and consequences)	Conclusions and related outcomes (consequences and implications) are logical and reflect student's informed evaluation and ability to place evidence and perspectives discussed in priority order.	Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly.	Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly.	Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified.

Creation of Rubrics: Primary Trait Analysis

Example: Rubric Outline for PTA of Scientific Report Assignment

Primary Trait Anchors for Methods and Materials Section of a Scientific Report

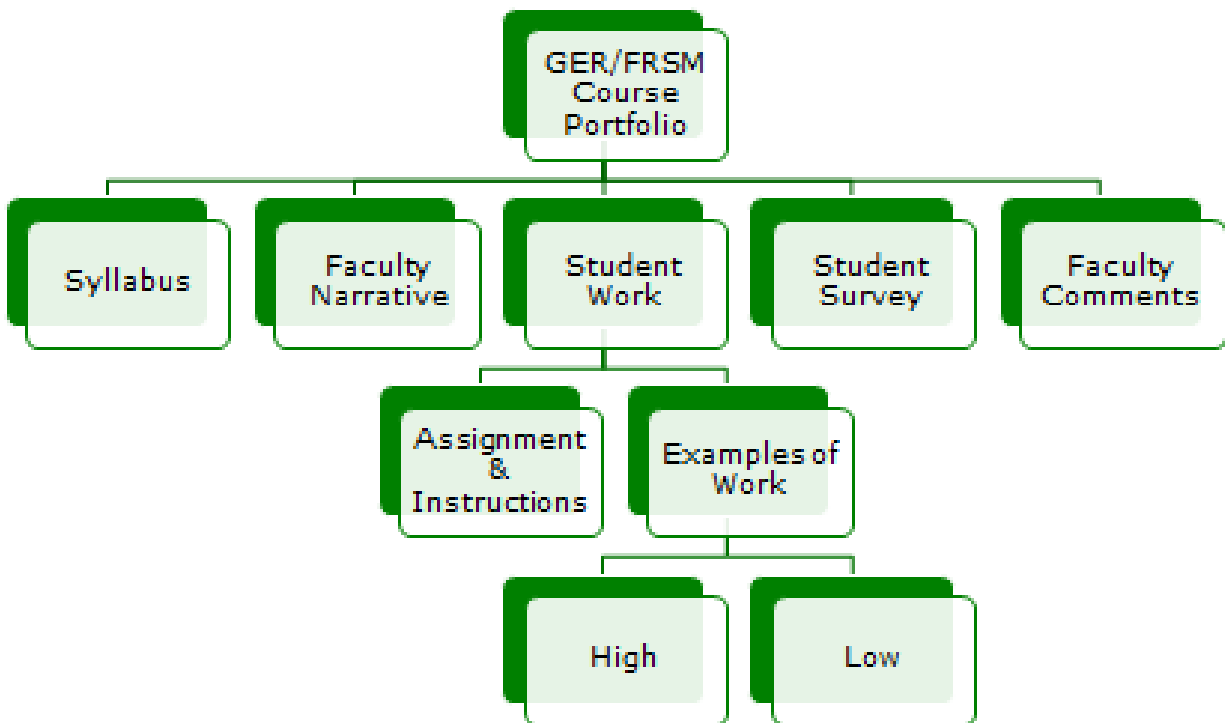
(Walvoord and Anderson, 1998, pgs. 65, 198)

	Superior (5)	Good (4)	Average(3)	Fair (2)	Poor (1)
Methods and Materials	Contains appropriate, quantifiable, concisely organized information that allows the experiment to be replicated. All information in the report can be related back to this section. Identifies sources of data. Sequences information appropriately. No wordiness.	As above, but contains unnecessary information and/or wordiness.	Experiment could be replicated from the information given. All information in the report can be related back to this section. However, fails to identify some data sources and/or has problematic sequencing.	Marginally replicable. Parts of basic design must be inferred. Procedures not quantitatively described. Some information in results or conclusions sections cannot be anticipated by reading this section.	Describes experiment so poorly it cannot be replicated.
Experimental Design					
Operational Definitions					
Data Collection					
Analysis and Conclusions					

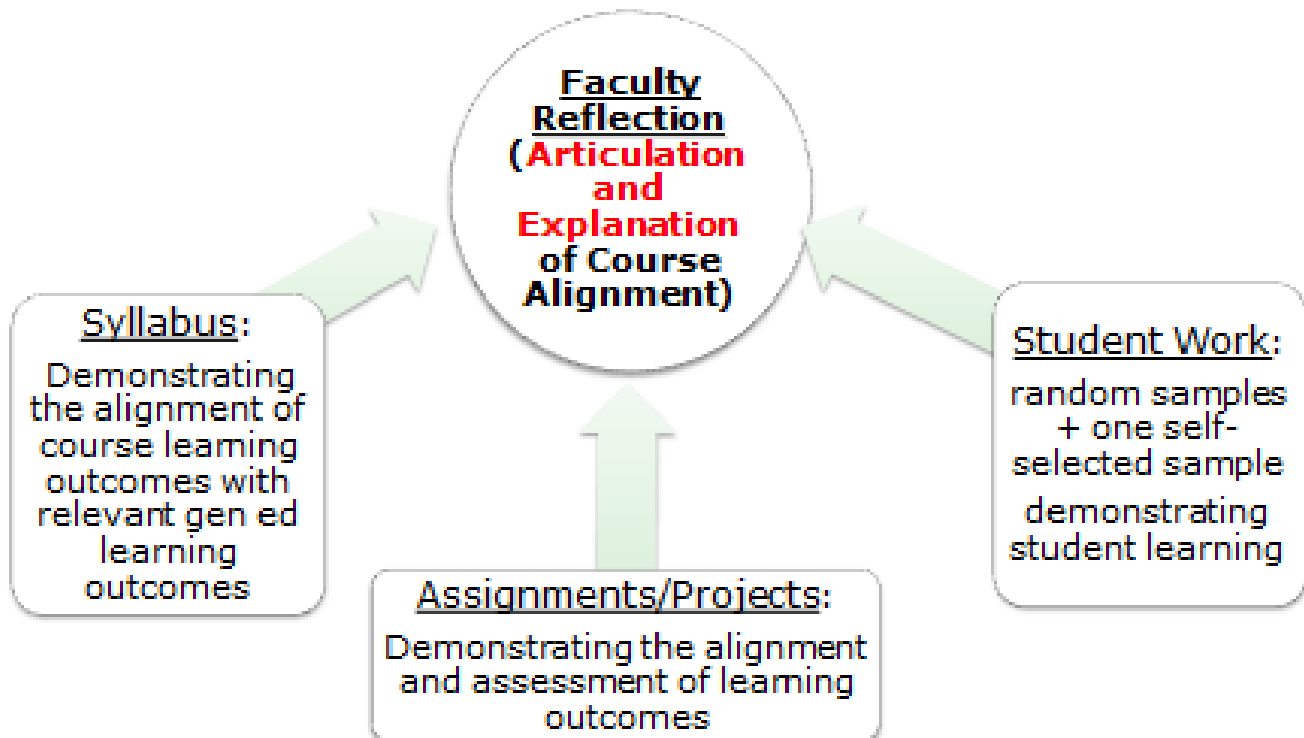
Examples of Course Portfolio Structure

From SACS 2011 Annual Meeting Workshop
Faculty Course Portfolio: A Faculty Led Approach to the Assessment of General Education
George Mason University: Karen M. Gentemann, Ying Zhou,
College of William & Mary: Denise Ridley McCoy, Susan Bosworth

W&M Course Portfolio Components



Course Portfolio Components



- W&M General Education Website:
www.wm.edu/as/undergraduate/curriculum/index.php
- GMU Gen Ed Learning Outcomes Website:
<https://assessment.gmu.edu/Genedassessment/outcomes.cfm>
- GMU Review Criteria Website:
<https://assessment.gmu.edu/Genedassessment/portfolioreview.html>

RESOURCES

INTERNET RESOURCES

- AAC&U LEAP: <http://www.aacu.org/leap/index.cfm>
- *Change: The Magazine of Higher Learning*: <http://www.changemag.org/>
- *Lumina Degree Qualifications Profile*:
http://www.luminafoundation.org/publications/The_Degree_Qualifications_Profile.pdf
- National Institute for Learning Outcomes Assessment:
<http://www.learningoutcomeassessment.org/AboutUs.html>
- NCHEMS – National Center for Higher Education Management Systems:
<http://www.nchems.org/>
- North Carolina State University Internet Resources for Outcomes Assessment:
<http://www2.acs.ncsu.edu/UPA/assmt/resource.htm>
- *Research & Practice in Assessment*: <http://www.rpajournal.com/>
- University of Hawai'i – Manoa: <http://manoa.hawaii.edu/assessment/howto/outcomes.htm>
- University of West Florida – Center for University Teaching, Learning, and Assessment:
<http://uwf.edu/cutla/>
- Virginia Assessment Group: <http://www.virginiaassessment.org/>
- Voluntary System of Accountability (VSA): <http://www.voluntarysystem.org/index.cfm>

GOOD READS FROM THE BOOKSHELF:

- Angelo, Thomas A. and Cross, K. Patricia *Classroom Assessment Techniques, 2nd ed.* San Francisco: Jossey-Bass, 1993.
- Astin, A.W. *Assessment for Excellence.* Phoenix, AZ: Oryx Press, 1993.
- Banta, Trudy W., Jon P. Lund, Karen .E. Black, and Frances W. Oblander. *Assessment in Practice: Putting Principles to Work on College Campuses.* San Francisco: Jossey-Bass, 1996.
- Bresciani, Marilee J. (Ed.). *Assessing Student Learning in General Education.* Anker Publishing, 2007.
- Maki, Peggy L. *Assessing for Learning: Building a Sustainable Commitment across the Institution.* Sterling, VA: Stylus Publishing, 2004.
- Maki, Peggy L. *Coming to Terms with Student Outcome Assessment.* Sterling, VA: Stylus Publishing, 2010.
- Pascarella, E. T., and P. T. Terenzini. *How College Affects Students, vol. 2.* San Francisco: Jossey-Bass, 2005.
- Suskie, Linda. *Assessing Student Learning: A Common Sense Guide.* Bolton, MA: Anker Publishing Company, Inc. 2004.
- Walvoord, Barbara and Virginia Johnson Anderson. *Effective Grading: A Tool for Learning and Assessment.* San Francisco: Jossey-Bass, 1998.